


**APPENDIX K: SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN**

Document No.: <b>WI-EHS-016</b>	Revision Date: <b>6/30/2022</b>	Revision No.: <b>003</b>	
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Certified By: <b>CEO</b>		Certified Date: <b>6/30/2022</b>	

**1.0 GENERAL APPLICABILITY [112.1 and 112.7(a)(1)]**

1.1 Under 40 CFR 112, the United States Environmental Protection Agency (EPA) requires non-transportation-related onshore and offshore facilities to prepare, implement and maintain a Spill Prevention, Control and Countermeasure Plan (SPCC Plan) if the following applies:

- Stores, transfers, uses or consumes oil or oil products, such as diesel fuel, gasoline, lube oil, hydraulic oil, adjuvant oil, crop oil, vegetable oil or animal fat; and
- Stores more than 1,320 U.S. gallons in total of all aboveground containers (only count containers with 55 gallons or greater storage capacity) or more than 42,000 gallons in completely buried containers; and
- Could reasonably be expected to discharge oil to navigable waters of the U.S. or adjoining shorelines, such as lakes, rivers and streams.

1.2 Based upon the geographical location of the site, the proximity to navigable waters and adjoining shorelines, and the types and amounts of oil and oil-related products stored at the site, it has been determined that the organization is required to prepare, implement and maintain a SPCC Plan.

**2.0 REQUIREMENT TO PREPARE AND IMPLEMENT A SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN [112.3]**


2.1 It has been determined that the organization is required to implement a Spill Prevention, Control and Countermeasure Plan (SPCC) because it is a non-transportation related facility engaged in storing and using oil and oil-related products with a total aggregate capacity of greater than 1,320-gallons which could reasonably be expected to discharge oil in quantities that may be harmful to navigable waters or adjoining shorelines. The total aggregate capacity of aboveground oil storage containers does not include containers less than 55-gallons. The surface water runoff of the property drains to an existing detention basin and ultimately drains to the Little Menomonee River which is approximately 770 feet to the east of the site. As a result, this SPCC Plan has been prepared in writing and implemented in accordance with 40 CFR 112.1 thru 112.8 and any other applicable section of this part.

2.2 As an organization for which a SPCC Plan is required, the organization shall maintain a complete copy of the SPCC Plan at the facility and will have the Plan available to Regional Administrator for on-site review during normal business hours.

2.3 Facilities that could reasonably be expected to cause substantial harm to the environment by discharging oil into or on navigable waters are required to prepare and submit a Facility Response Plan (FRP) as required under the Oil Pollution and Prevention Regulation 40 CFR 112.20. The organization has determined that the facility does not meet the substantial harm criteria and that the facility is not subject to the FRP rule though self-identification. (Appendix A - Substantial Harm Determination).

**3.0 AMENDMENT OF SPCC PLAN BY OWNERS OR OPERATORS [112.5]**

3.1 The organization shall amend the SPCC Plan when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge. An amendment must be prepared within six months and implemented as soon as possible, but no later than six months following preparation of the amendment.

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3.2 In addition, a complete review and evaluation of the SPCC Plan must be conducted at least once every five years from the effective date of the plan. As a result of the review and evaluation, the SPCC Plan must be amended within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge from the facility. Any amendments must be implemented as soon as possible, but no later than six months following preparation of any amendments.

3.3 The review and evaluation must be documented and include a signed statement as to whether the plan will be amended (Appendix B - SPCC Plan Review and Amendments). A Professional Engineer must certify any technical amendments to the Plan. Non-technical amendments can be conducted by the organization.

**4.0 GENERAL [112.7(a)(2)]**

4.1 The SPCC Plan for the organization shall comply with all applicable requirements under 40 CFR 112 and shall not deviate.

**5.0 FACILITY LAYOUT and DIAGRAMS [112.7(a)(3)]**


5.1 Location. The site is located in the Germantown Industrial Park in Germantown, Wisconsin (Washington County). The facility is located on a 3-acre parcel with an approximately 45,000 square foot building of which 70% is paved or under roof and 30% is unpaved. There are no subgrade areas at the site with the exception of loading bays located on the east and north side of the property. Railroad tracks are approximately ¼ mile to the west of the facility. Additionally, the surface water runoff of the property drains to an existing detention basin and ultimately drains to the Little Menomonee River which is approximately 770 feet to the east of the site. (Appendix C - Facility Maps and Diagrams - C-1 Topographical)

5.2 Property Drainage Description. Precipitation from the facility drains to an existing detention basin owned and operated by the Village of Germantown and is located on the east side of the property. This detention basin is located approximately 90 feet from the east above ground storage tank secondary containment wall. After leaving the regional detention basin, the surface water runoff enters a small un-named stream that eventually flows into the Little Menomonee River which is approximately 770 feet to the east of the site. (Appendix C - Facility Maps and Diagrams - C-3 Surface Waters and Streams)

5.3 Facility Description. The organization operates Other Non-Hazardous Treatment and Disposal Facility (562219) and Other Miscellaneous Waste Management Services (5629998). The building consists of offices, warehouses, processing areas and a laboratory. The areas of the facility have been classified by the Wisconsin Department of Commerce based upon their construction and designed usage. (See Appendix C - Facility Maps and Diagrams - C-2 Site)

**Table 5-1: Facility Information**

Location	Area	Occupancy Classification	Description
Office Area/Laboratory	4,992 ft <sup>2</sup>	B Classification	Administrative/Laboratory
RM 124	4,646 ft <sup>2</sup>	S1 Classification	Staging and Storage

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RM 125	5,091 ft <sup>2</sup>	H3 Classification	Hazardous Storage
RM 126	1,056 ft <sup>2</sup>	H2 Classification	Hazardous Storage and Processing
RM 127	22,743 ft <sup>2</sup>	S1 Classification	Non-Hazardous Storage and Processing
Inside Storage Tanks	4 Each 12,500-Gal	S1 Classification	Bulk Non-Hazardous Storage
Outside Storage Tanks	2 Each 18,500-Gal	H3 Classification	Bulk Hazardous Storage

**6.0 OIL AND OIL-RELATED STORAGE and CAPACITY [112.7(a)(3)(i)]**

- 6.1 The facility uses and stores oil and oil-related products as defined by the U.S. Coast Guard List of Petroleum and Non-Petroleum Oils and referenced by the EPA as to covered products. The materials present and stored at the site are summarized below and identified on the facility diagram (Appendix C - Facility Maps and Diagrams - C-2 Site). All containers with capacity of 55-gallons or more are included. The outside above ground storage tanks are pre-manufactured and meet the Underwriter's Laboratories (UL) tank construction and standard for flammable/combustible liquids. The inside above ground storage tanks are pre-manufactured plastic tanks. The design and construction are compatible with the material which they contain and temperature and pressure conditions of storage. Equipment on-site that utilizes oil and oil-related products are limited and less than 55-gallons.
- 6.2 The site does have one transformer on its property which is owned by WE Energies and the container capacity is unknown.
- 6.3 The capacities of oil and oil-related containers present at the site are summarized in the table below and stored within the building. All containers with capacity of 55-gallons or more are included.

**Table 6-1:** Identification of Oil Containers



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ID	Type	Product Type	Typical Container Type	Capacity*
T01	Above Ground Storage Tank (Outside)	Flammable/Combustibles Materials	UL Tank	18,500 gals.
T02	Above Ground Storage Tank (Outside)	Flammable/Combustibles Materials	UL Tank	18,500 gals.
RM124	Solid and Hazardous Waste Staging and Storage Maximum: 616 55-Gallon Drums or Equivalent	Used Oil, Oily Waters and Flammable/ Combustibles Materials	Drum and Totes - Various Sizes	33,880 gals.
RM125	Hazardous Waste Storage Maximum: 784 55-Gallon Drums or Equivalent	Flammable/Combustibles Materials	Drum and Totes - Various Sizes	43,120 gals.
RM126	Hazardous Waste Processing and Treatment Maximum: 160 55-Gallon Drums or Equivalent	Flammable/Combustibles Materials	Drum and Totes - Various Sizes	8,800 gals.
RM 127	Solid Waste Storage and Processing Maximum: 3,304 55-Gallon Drums or Equivalent	Used Oil and Oily Waters	Drum and Totes - Various Sizes	181,720 gals.
T03	Above Ground Storage Tank (Inside RM 127)	Used Oil	Plastic Tank	12,500 gals.
T04	Above Ground Storage Tank (Inside RM 127)	Oily Waters	Plastic Tank	12,500 gals.
T05	Above Ground Storage Tank (Inside RM 127)	Used Oil	Plastic Tank	12,500 gals.
T06	Above Ground Storage Tank (Inside RM 127)	Oily Waters	Plastic Tank	12,500 gals.
N/A	Electrical Transformers (owned by utility provider)	Oil	Unknown	Unknown
<b>TOTAL</b>				<b>152,960 gals.</b>


\*Special note. Actual volumes varies and therefore, the maximum amount is based upon storage capacity and assuming all containers are oil or oil-related materials. Actual materials and volumes on-site at any point in time will change based on business conditions.

**7.0 DISCHARGE PREVENTION MEASURES [112.7(a)(3)(ii)] and DRAINAGE CONTROLS [112(a)(3)(iii)]**

7.1 Above Ground Storage Tanks (Outside). The above ground storage tanks are located outside the building in secondary containment. All valves, flanges and caps on the tanks are maintained in the closed position to prevent release of material. The tanks are affixed with an overflow alarm and liquid level gauges.

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- 7.2 Above Ground Storage Tanks (Inside RM 127). The above ground storage tanks are located inside building RM 127 in secondary containment. The valves, flanges and caps on the tanks are maintained in the closed position to prevent release of material.
- 7.3 Solid and Hazardous Waste Staging and Storing (Room 124). The warehouse is a self-contained room with a concrete thickness of 5" or more. The concrete for the engineered containment of the building is poured with a waterproofing additive which permanently sealed the concrete. A chemical resistant coating system was then applied to the joints between the concrete slab and walls to eliminate any potential for seepage should a spill or leak occur. All containers within the warehouse are closed and sealed and stored in stable piles. A visual inspection (Appendix G - Inspections and Testing) is conducted daily to monitor for evidence of leakage from a container. A spill kit is located within the area. Transferring of liquids between containers is only conducted while a person is in attendance.
- 7.4 Hazardous Waste Storage (Room 125). The warehouse is a self-contained room with a concrete thickness of 5" or more. The concrete for the engineered containment of the building is poured with a waterproofing additive which permanently sealed the concrete. A chemical resistant coating system was then applied to the joints between the concrete slab and walls to eliminate any potential for seepage should a spill or leak occur. All containers within the warehouse are closed and sealed and stored in stable piles. A visual inspection (Appendix G - Inspections and Testing) is conducted daily to monitor for evidence of leakage from a container. A spill kit is located within the area. Transferring of liquids between containers is only conducted while a person is in attendance.
- 7.5 Hazardous Waste Processing and Treatment (Room 126). The warehouse is a self-contained room with a concrete thickness of 5" or more. The concrete for the engineered containment of the building is poured with a waterproofing additive which permanently sealed the concrete. A chemical resistant coating system was then applied to the joints between the concrete slab and walls to eliminate any potential for seepage should a spill or leak occur. All containers within the warehouse are closed and sealed and stored in stable piles. A visual inspection (Appendix G - Inspections and Testing) is conducted daily to monitor for evidence of leakage from a container. A spill kit is located within the area. Transferring of liquids between containers is only conducted while a person is in attendance.
- 7.6 Solid Waste Storage and Processing (Room 127). The warehouse is a self-contained room with a concrete thickness of 5" or more. The concrete for the engineered containment of the building is poured with a waterproofing additive which permanently sealed the concrete. A chemical resistant coating system was then applied to the joints between the concrete slab and walls to eliminate any potential for seepage should a spill or leak occur. All containers within the warehouse are closed and sealed and stored in stable piles. A visual inspection (Appendix G - Inspections and Testing) is conducted daily to monitor for evidence of leakage from a container. A spill kit is located within the area. Transferring of liquids between containers is only conducted while a person is in attendance.
- 8.0 DISCHARGE DISCOVERY, RESPONSE AND CLEANUP [11.2(a)(3)(iv)]**
- 8.1 The organization has established procedures for the notification of internal personnel upon the cause or discovery of a discharge. Personnel have been trained in spill response activities and the utilization of the spill kits and equipment present. In addition, the

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organization has made arrangements with specialized outside contractors to response to and assist in the cleanup of a discharge, as warranted.

**9.0 DISPOSAL [112.7(a)(3)(v)]**

9.1 The cleanup contractor shall handle the disposal under the direction of the CEO of any recovered material, contaminated soil, contaminated materials and equipment, decontamination solutions, sorbents, and spent chemicals collected during a response to a discharge incident.

9.2 If the facility responds to a discharge without involvement of a cleanup contractor, the organization shall disposal of all materials in accordance to regulatory requirements.

**10.0 EMERGENCY CONTACT INFORMATION [112.7(a)(3)(vi)]**

10.1 The contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contactors, and all appropriate Federal, State and local agencies who must be contacted in case of a discharge have been posted throughout the facility. (Appendix D - Emergency Contact Information).

**11.0 SPILL RELEASE AND REPORTING [112.7(a)(4)]**

11.1 A discharge of oil in such quantities that may be harmful to the public health or welfare or the environment include dischargers of oil that violates applicable water quantity standards or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. Spills that occur that may be harmful to the public health or welfare or the environment, must be reported immediately to specific governmental agencies. The specific information required to be report are contained within the reporting forms. (Appendix E - Spill Reporting)

11.2 Decisions about the reportability of a release or spill that occurred and the responsibility of notification and/or submittal of the reports to governmental agencies should be conducted by the CEO.

**12.0 OIL DISCHARGE RESPONSE [112.7(a)(5)]**

12.1 The organization has planned and prepared for immediate action to control, contain and recover discharged oil or oil-related products. The specific details are outlined in the Emergency Management Plan (WI-EHS-005).

**13.0 POTENTIAL SPILL PREDICTIONS AND DISCHARGE PATTERN [112.7(b)]**

13.1 The organization was evaluated to determine reasonable potential for major equipment failure which would result in a potential release of oil or oil-related product into the environment. A prediction of the direction, rate of flow and total quantity of oil which could be discharged from the facility are summarized below.

**Table 13-1: Potential Discharge Volumes and Direction of Flow**

Potential Event	Maximum volume released (gallons)	Maximum discharge rate <sup>(1)</sup>	Direction of Flow	Secondary Containment
<b>Outside Above Ground Storage Tanks (T01 and T02)</b>				

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Potential Event	Maximum volume released (gallons)	Maximum discharge rate <sup>(1)</sup>	Direction of Flow	Secondary Containment
Failure of aboveground tank (collapse or puncture below product level).	18,000	Gradual to instantaneous	Secondary Containment System	Outside concrete containment.
Tank overfills.	1 to 18,000	270 gpm	Secondary Containment System	Outside concrete containment.
Pipe rupture or failure. Based upon 3" piping.	1 to 18,000	130 gpm	Secondary Containment System	Outside concrete containment.
Valve failure.	1 to 18,000	1 gpm	Secondary Containment System	Outside concrete containment.
Leaking pipe or valve.	1 to 18,000	1 gpm	Secondary Containment System	Outside concrete containment.
<b>East and North Loading Docks</b>				
Tank truck leak or failure inside the loading/unloading area.	1 to 18,000	Gradual to instantaneous	Secondary Containment System	Outside concrete containment.
Hose leak during truck loading/unloading.	1 to 18,000	140 gpm	Secondary Containment System	Outside concrete containment.
Pump failure.	1 to 18,000	270 gpm	Secondary Containment System	Outside concrete containment.
<b>Warehouse Storage (RM124)</b>				
Leak or failure of drum/tote/or other containers.	0 to 300	Gradual to instantaneous	Contained within the building.	Inside concrete containment.
<b>Warehouse Storage (RM125)</b>				
Leak or failure of drum/tote/or other containers.	0 to 330	Gradual to instantaneous	Contained within the building.	Inside concrete containment.
<b>Warehouse Processing (RM126)</b>				
Leak or failure of drum/tote/or other containers.	0 to 330 gals.	Gradual to instantaneous	Contained within the building.	Inside concrete containment.
Pump failure.	0 to 330 gals.	135 gpm	Contained within the building.	Inside concrete containment.
Pipe rupture or failure. Based upon 2" piping.	0 to 330 gals.	45 gpm	Contained within the building.	Inside concrete containment.
Valve failure.	0 to 330 gals.	1 gpm	Contained within the building.	Inside concrete containment.
Leaking pipe or valve.	0 to 330 gals.	1 gpm	Contained within the building.	Inside concrete containment.
<b>Warehouse Storage (RM127)</b>				
Leak or failure of drum/tote/or other containers.	0 to 330 gals.	Gradual to instantaneous	Contained within the building.	Inside concrete containment.
<b>Above Ground Storage Tanks (T07 thru T010)</b>				
Failure of aboveground tank (collapse or puncture below product level).	12,500	Gradual to instantaneous	Secondary Containment System	Inside concrete containment.
Tank overfills.	1 to 12,500	270 gpm	Secondary Containment System	Inside concrete containment.

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Potential Event	Maximum volume released (gallons)	Maximum discharge rate <sup>(1)</sup>	Direction of Flow	Secondary Containment
Pipe rupture or failure. Based upon 3" piping.	1 to 18,000	130 gpm	Secondary Containment System	Inside concrete containment.
Valve failure.	1 to 18,000	1 gpm	Secondary Containment System	Inside concrete containment.
Leaking pipe or valve.	1 to 18,000	1 gpm	Secondary Containment System	Inside concrete containment.

(1) Maximum discharge rates are estimates based upon the information provided by the manufacturer for the equipment.

**14.0 SECONDARY CONTAINMENT [112.7(c)]**

- 14.1 Warehouses. For those sources that are located inside the building, the building itself has been designed as secondary containment as the result of sloping and the installation of an impervious concrete foundation that is permanently sealed. An impervious caulking has been applied from the concrete floor to approximately 2 inches on the brick wall to seal the joint area. In addition, no floor drains are present inside the building that would result in a discharge to the sanitary sewer. However, there is a sump pump system present in Room 124 which would accumulate and remove water to the municipal storm drain should it become present at specific levels. The sump pump is a manual operating system and is maintained in the off position at all times. (See Appendix F - Secondary Containment Calculations)
- 14.2 Above Ground Storage Tanks (Outside). A concrete secondary containment system has been constructed around the above ground storage tanks outside the building so that any discharge from the tanks will not escape the containment system before cleanup occurs. In addition, an inlet stormceptor system was installed at the outlet of the secondary containment system drainage to remove total suspended solids (TSS) and free oil (TPH) from storm water run-off prior to discharge to the environment. (See Appendix F - Secondary Containment Calculations)
- 14.3 Above Ground Storage Tanks (Inside RM127). A concrete secondary containment system has been constructed around the above ground storage tanks inside the building so that any discharge from the tanks will not escape the containment system before cleanup occurs.
- 14.4 Non-Racking Loading and Unloading. Tank truck loading/unloading operations associated with the above ground storage tanks and treatment operations entail pulling the tank truck into the Tanker Fill Area #1 and Tanker Fill Area #2 that are properly graded and walled so that a spill from a tank truck would reasonably be expected to drain into a trench that discharges into the concrete-walled secondary containment area associated with the storage tanks. The configuration of this loading area, when coupled with the loading/unloading procedure, is expected to provide appropriate diversionary control for the tank truck loading/unloading activities associated with this area.
- 14.5 Loading Docks. The loading docks for loading and unloading trucks is conducted in the loading dock area which is affixed with appropriate containment and/or diversionary controls.

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**15.0 PROFESSIONAL ENGINEER CERTIFICATION, MANAGEMENT SUPPORT AND AVAILABILITY [112.3(c) and 112.7(d)(1)]**

15.1 For a Plan to be effective to satisfy the requirements, a licensed Professional Engineer must review and certify the plan. By the means of this certification the Professional Engineer attests that they are familiar with the requirements of this part, that them or their agent has visited and examined the facility, that the Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and requirements of this standard, the procedures for required inspections and testing have been established, and that the Plan is adequate for the facility.

15.2 The Professional Certification shall in no way relieve the owner or operator of a facility of their duty to prepare and fully implement such Plan in accordance with the applicable requirements.

15.3 A fully prepared and executed SPCC Plan shall be maintained electronically at the organization and shall be made available to Regional Administrator for on-site review during normal working hours.

**16.0 MANAGEMENT COMMITMENT [112.7(d)(2)]**

16.1 For a Plan to be effective to satisfy the regulatory requirements, management of the facility must be committed to provide the resources to appropriately address the elements of the plan. By means of the management commitment statement, management attests that they will familiarize themselves with the requirements and the elements of this plan and will provide the adequate resources to maintain it. (Appendix B - SPCC Plan Review and Amendments)

**17.0 INSPECTIONS, TESTS AND RECORDS [112.7(e)]**

17.1 The inspection requirements are designed to detect oil leaks, spills, or other potential integrity or structural issues before they can result in a discharge of oil to navigable waters or adjoining shorelines. Regularly scheduled inspections, evaluations, and testing of bulk oil storage containers by qualified personnel are critical parts of discharge prevention.


17.2 Integrity testing and routine inspections are required for all containers with a capacity of 55-gallons or more. The inspections conducted shall be in accordance with the Steel Tank Institute (STI) SP001 Standard for the Inspection of Aboveground Storage Tanks and Portable Containers (STI SP001) on a routine basis to maintain the integrity of the oil and oil-related storage containers and associated auxiliary equipment. The records of the inspections and tests performed shall be retained under customary business practices for a period of not less than 3-years. (Appendix G - Inspections and Testing)

**18.0 PERSONNEL, TRAINING AND DISCHARGE PREVENTION PROCEDURES [112.7 (f)]**

18.1 Employees shall be trained on the various subject matter appropriate to the level of their expected involvement. Oil-handling personnel shall initially be trained in the elements of the organization's SPCC Plan, applicable pollution control laws, rules and regulations, operation and maintenance of equipment to prevent discharges, discharge procedure protocols and spill response. The records of the training and annual briefings performed shall be retained under customary business practices for a period of not less than 3-years. (Appendix H - SPCC Training Protocol)

18.2 The Emergency Response Team shall be accountable for discharge prevention. Any near miss or actual spill event shall be documented as an incident and shall be reviewed for corrective and preventative action. The event shall be documented as



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part of the organization's Incident Reporting and Investigation protocol.

18.3 Contractors that may temporarily bring equipment or storage containers onsite, with oil-containing capacities of at least 55-gallons, shall be briefed on the facility and of spill concerns via instructional signs (e.g., warning for overhead piping) and contractor orientation prior to the start of work on-site.

**19.0 SECURITY [112.7(g)]**

19.1 The organization has implemented extensive security measures into the facility's infrastructure to ensure control of the property and its contents.

19.2 Perimeter Barriers. The facility is located in an industrial park with strategically located landscaping and vegetation installed to aid in the security of the property. Signage is posted at each driveway entry point restricting access to the actual property itself.


19.3 Facility Lighting. Lights illuminate the property on the outer perimeter and provide adequate visibility to detect spills during night-time hours and in preventing vandalism. All deliveries of oil and oil-related materials are made during daylight hours. Lighting inside the building is sufficient to detect a release in storage and transfer areas. In addition, a night lighting system within the building is present to provide sufficient illumination to all areas.

19.4 Monitoring and Instruction Detection Systems. An intrusion detection system provides early warning of unauthorized penetration on the premises or into the facility. Therefore, a 24-hours active security surveillance system (CCTV and IP camera monitoring system) which continuously monitors and records the activity of the facility has been implemented. A security alarm system has also been installed and is activated when unauthorized access is attempted. The system triggers an alarm if a breach is detected which dispatches local authorities and notifies management.

19.5 Access Controls. All doors with access into the facility itself are continuously locked at all times and entrance is controlled by a card access control system. This includes the doors from the warehouse to the office areas. Badges are issued to employees with specific access permissions based upon their job responsibilities and needs. The organizational issued badges distinguish employees from intruder or other unauthorized personnel. All other persons, other than employees, entering and exiting the facility are required to log in while on-site or be escorted.

19.6 Fencing. The perimeter of the above ground storage tanks is fully fenced and gated. There is one entrance into the area. The entrance gate is locked when area is unattended. Only authorized personnel have access to the area.

19.7 Drain Valves. The primary oil or oil-related containing sources covered under this SPCC Plan for which there is a reasonable potential for direct outward flow of the container's contents to outside surfaces include the above ground storage tanks located in the outside tank farm. The drain valves on each of the bulk storage tanks are maintained in the closed position, are kept under lock when in non-operating or standby status and are located within a fenced secondary containment area for which access is limited.

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19.8 Pumps. Pumps are only accessible to authorized personnel. Pump associated with the above ground storage tanks are turned off and kept under lock when in non-operating or standby status. All other pumps are located inside the building which is secure with limited access. Bulk loading and unloading of storage tanks by tanker trucks utilize the pumps with which the trucks are equipped to transfer material.

19.9 Loading/Unloading Connections of Pipeline. Loading/unloading connections of oil and oil-related transfer piping at the facility are securely capped or blank-flanged when not in service or when in standby service for an extended time, as required. Connects are located within a fenced secondary containment area for which access is limited.

**20.0 FACILITY TANK CAR AND TANK TRUCK LOADING/UNLOADING [112.7(h)]**

20.1 Receiving - Containers. Oil and oil-related containers are received at the facility in sealed steel or plastic containers in various sizes. Upon receipt, the containers are visually inspected to ensure the container was not compromised during shipment.

20.2 Shipping - Containers. Oil and oil-related containers are shipped in sealed steel or plastic containers in various sizes. Prior to shipment, the containers are visually inspected to ensure the container is not compromised. Unacceptable containers are not shipped and address appropriately.

20.3 Shipping - Tanker Truck. Oil and oil-related are pumped into tanker truck and shipped. Prior to filling and departure of the tanker truck, a visual inspection is conducted for discharges from piping, hose hook-up and all outlets on the vehicle to ensure they are all tightened, adjusted or replaced. Wheel chocks shall be provided and used during the loading process to prevent the vehicle from department before completed disconnection. The transfer operation is continuously monitored to allow for rapid shut-off of transfer pump in the event of a leak or spill event.

20.4 The facility does not have loading or unloading racks at the facility as the fill port associated with the above ground storage tank loading or unloading by tanker truck consist of a single hose and connection. General procedures for non-rack loading and unloading operations were previously described.


**21.0 ABOVE GROUND STORAGE TANKS [112.7(i)]**

21.1 Outside Above Ground Storage Tank (T01 and T02)

The above ground storage tanks are pre-manufactured and meet the Underwriter's Laboratories (UL) tank construction standard for flammable/combustible liquids. The design and construction are compatible with the material which they contain and temperature and pressure conditions of storage. The above ground storage tanks are located outside in secondary containment.

Tank Number:	T01 and T02
Tank:	UL 142 Single Wall Tank with 5" Sloped Tank Bottom
Manufacturer:	International Production Specialist
Specific Gravity:	0.86
Temperature:	Ambient
Storage Pressure:	Atmospheric
Capacity:	18,000-gallons
Dimension:	11 ft. diameter x 25 ft. height



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- 21.2 Inside Above Ground Storage Tank #2 (T07 thru T10)  
The above ground storage tanks are pre-manufactured plastic. The design and construction are compatible with the material which they contain and temperature and pressure conditions of storage. The above ground storage tanks are located inside RM 127 in secondary containment.

Tank Number:	T07 thru T10
Tank:	Polyethylene Tanks
Manufacturer:	Den Hartog Industries, Inc.
Specific Gravity:	1.7
Temperature:	Ambient
Storage Pressure:	Atmospheric
Capacity:	12,500-gallons
Dimension:	11 ft 8 in diameter x 17 ft 3 in height

**22.0 CONFORMANCE TO OTHER STATE AND LOCAL REQUIREMENTS [112.7(j)]**

- 22.1 In addition to the minimal prevention standards listed within this plan, the organization is also required to conform to the applicable requirements and other effective discharge prevention and containment procedures listed below:


- Emergency Action Plan [OSHA 29 CFR 1910.38]
- Fire Prevention Plan [OSHA 29 CFR 1910.39]
- Employee Alarm System [OSHA 29 CFR 1910.165]
- Portable Fire Extinguisher [OSHA 29 CFR 1910.157]
- Hazardous Waste Operations and Emergency Response [29 CFR 1910.120]
- Hazardous Substance Spill Notification [Wisconsin DNR Chapter NR 706]
- Contingency Plan [Wisconsin DNR Chapter NR 670.014(2)(g)]
- Preparedness and Prevention [Wisconsin DNR Chapter NR 670.014(f)]
- Small Quantity Generator [Wisconsin DNR Chapter NR 662]
- NPDES Storm Water Permit (Wisconsin DNR Chapter NR 216)
- Hazardous Material Incident Reporting [DOT 49 CFR 171.180]
- Department of Agriculture, Trade and Consumer Protection [ATCP 93.440(3)]
- National Fire Protection Association [NFPA]
- Local Fire Department Ordinances

**23.0 OIL-FILLED OPERATIONAL EQUIPMENT [112.7(k)]**

- 23.1 The organization has had no single discharge from an oil-filled operational equipment exceeding 1,000-gallons or no two discharges from any oil-filled operational equipment each exceeding 42-gallons within any twelve-month period in the last three years prior to the SPCC Plan certification date.
- 23.2 The organization has limited oil-filled equipment on-site. In addition, the equipment on-site that does contain oil, it is less than 55-gallons.

**24.0 RELATED DOCUMENTS**


- 24.1 Appendix A - Substantial Harm Determination  
24.2 Appendix B - SPCC Plan Review and Amendment  
24.3 Appendix C - Facility Maps and Diagrams  
24.4 Appendix D - Emergency Contact Information  
24.5 Appendix E - Spill Reporting

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- 24.6 Appendix F - Secondary Containment Calculations
- 24.7 Appendix G - Inspections and Testing
- 24.8 Appendix H - SPCC Training Protocol

**25.0 REFERENCE DOCUMENTS**

- 25.1 Spill Prevention, Control and Countermeasure Regulation (EPA 40 CFR Part 112)
- 25.2 Emergency Management Response Plan (WI-EHS-005)

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**APPENDIX A  
CERTIFICATION OF APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA**

**Yes**  **No** Does the facility have an oil storage capacity that is greater than or equal to 42,000 gallons and conduct operations that include over-water transfers to or from vessels?

**Yes**  **No** Does the facility have an oil storage capacity greater than or equal to one million gallons **and** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation with any aboveground storage area?

**Yes**  **No** Does the facility have an oil storage capacity greater than or equal to one million gallons **and** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula 1) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.


**Yes**  **No** Does the facility have an oil storage capacity greater than or equal to one million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula (such that a discharge from the facility would shut down a public drinking water intake)?

**Yes**  **No** Does the facility have an oil storage capacity greater than or equal to one million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

**Certification**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature:           Dawn Zellmer            
Name (Print):           Dawn Zellmer            
Title:           CEO/Operations            
Date:           6/30/2022

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**APPENDIX B  
SPCC PLAN REVIEW AND AMENDMENTS**

The SPCC Plan must be reviewed and evaluated at least once every five years from the date the facility review was last conducted. The completion of the review and evaluation must be documented and contain a signed statement as to whether the plan requires amendments.

**Management Commitment**

In accordance with 40 CFR Part 112.7 this SPCC Plan has been reviewed by and has the full approval of management in order to ensure resources will be available to fully implement the SPCC Plan.

Signature:           Dawn Zellmer            
Name (Print):           Dawn Zellmer            
Title:           CEO/Operations            
Date:           6/30/2022          

**Facility Review and Certification Log**


Facility Name	Date	Scope	Facility Reviewer	Signature
Enviro-Safe Germantown, WI	August-2012	Initial SPCC Plan Generation	Jeff Vilione Enviro-Safe Consulting, LLC.	<i>J. Vilione</i>
Enviro-Safe Germantown, WI	August-2020	5-Year Review	Dawn Zellmer Enviro-Safe Consulting, LLC.	<i>Dawn Zellmer</i>
Enviro-Safe Germantown, WI	June-2022	Review to update to include building addition.	Dawn Zellmer Enviro-Safe Consulting, LLC.	<i>Dawn Zellmer</i>

Statement: I have completed a review and evaluation of the SPCC Plan for the above reference facility and will not amend the plan as a result.

The SPCC Plan must be reviewed and certified by a PE at least once every five years from the previous PE review and certification date. The PE certification must be documented and contained within this plan.

**PE Review and Certification Log**

Facility Name	Date	Scope	PE Name	License Number
Enviro-Safe Germantown, WI	August-2012	Initial SPCC Plan Generation	Kenneth Fries Enviro-Safe Consulting, LLC.	Wisconsin - #20327

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Stantec Mequon, WI	September-2021	5-Year PE Review and Certification	Hiedi Walker Stantec	Wisconsin - #33641
Stantec Mequon, WI	June-2022	Building Addition Inclusion	Hiedi Walker Stantec	Wisconsin - #33641

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility [112.3(d)].

Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement the SPCC Plan in accordance with the requirements of this part.

HIEDI WALLER  
NAME  
  
33741  
REGISTRATION NUMBER  
  
WISCONSIN  
STATE  
  
6/30/2022  
DATE

ENGINEER STAMP WILL BE AFFIXED ONCE COVID-19 RESTRICTIONS ARE EASED.







*Hiedi Ann Waller*

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### APPENDIX C FACILITY MAPS AND DIAGRAMS

The maps below depict various elements of the facility. The Facility Diagram includes location of oil storage, spill kits and the above ground storage tanks.

Figure ID	Description	Figure
Figure C-1	Topographical Map	 Appendix C - C-1 - Topographical Map.
Figure C-2	Site Map	 Appendix C - C-2 Site.pdf
Figure C-3	Surface Waters and Streams	 Appendix C - C-3 Surface Waters and
Figure C-4	Spill Kits	 Appendix C - C-4 Spill Kits.pdf

Spill kits have been placed in designated areas within the facility and are visually monitored and restocked as necessary. See the Spill Kit Map for specific locations.


Area	Building	Spill Kit
Staging and Storage	Room 124	Universal Spill Kit
Hazardous Storage	Room 125	Universal Spill Kit
Hazardous Storage and Processing	Room 126	Universal Spill Kit
Non-Hazardous Storage and Processing	Room 127	Universal Spill Kit

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**APPENDIX D  
EMERGENCY CONTACT INFORMATION**

Emergency contact information is located in the Emergency Management Response Plan (WI-EHS-005, Appendix A) and posted throughout the facility. In an effort to reduce redundancy and ensure accuracy of the information available, the list shall not be maintained as part of this plan.

The organization has established a prearranged agreement with the local police department, fire department, and emergency response teams. The pre-arrangements have been established in the form of written notification to the agencies and medical facilities and includes information on the building layout, places where personnel work, entrances to the site and evacuation routes. In addition, the organization has established a prearranged agreement with outside companies to respond should a spill incident occur to assist in spill response, management, cleanup and regulatory reporting and requirements. This information is located in the Emergency Management Plan (WI-EHS-005, Appendix E). In an effort to reduce redundancy and ensure accuracy of the information available, the list shall not be maintained as part of this plan.

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## APPENDIX E SPILL REPORTING REQUIREMENTS

In addition to the emergency response procedures previously established and outlined with this plan, additional immediate reporting requirements shall be required for discharges of spills of hazardous substances.

### WDNR Reportable Spills

Spills are reportable to the Wisconsin DNR if:

- there is an impact to human health (an evacuation is considered a threat to human health)
- there is an impact to the environment (includes sanitary sewer, storm sewer and/or surface water)
- there is a fire, explosion or safety hazard
- the spill has NOT been immediately cleaned up (in accordance with NR700-726)
- the spill is more than reportable quantities:
  - petroleum product completely contained on an impervious surface.
  - less than 1 gallon of gasoline or light grade petroleum product onto a pervious surface or runs off an impervious surface.
  - less than 5 gallons of medium or heavy grade petroleum products onto a pervious surface or runs off an impervious surface.

**\*\*Special Note.** A hazardous substance that is “discharged” into a secondary containment structure, that is completely contained and can be recovered with no discharge to the environment, is not subject to the discharge notification requirement.\*\*

### WDNR Notification

In the event of a release, **call the 24-hour spill hotline at 1-800-943-0003.**

If there is a release that could threaten human health outside the facility or if a spill reaches surface water, **immediately notify the National Response Center at (800) 424-8802.**

### Federal Reporting Requirements

A responsible party may also have to comply with other state and/or federal reporting requirements relating to the Emergency Planning and Community Right to Know Act (EPCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Contact the Environmental Consultant for assistance.

WDNR Spill Notification Form  
(4400-225)




EHS010 -  
Emergency Respons

WDNR Spill Fact Sheet



EHS010 -  
Emergency Respons




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WDNR Spill Coordinators



EHS010 -  
Emergency Respons


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**APPENDIX F  
SECONDARY CONTAINMENT CALCULATIONS**

The secondary containment calculations for the various self-contained warehouses and above ground storage tanks containment structures are contained within the Secondary Containment Calculations documentation.



Appendix F -  
Secondary Containn





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**APPENDIX G  
INSPECTIONS AND TESTS RECORDS AND FORMS**

Integrity testing and routine inspections are required for all containers with a capacity of 55-gallons or more. Oil filled equipment is not subject to the integrity testing requirements. The inspections conducted shall be in accordance with the Steel Tank Institute (STI) SP001 Standard for the Inspection of Aboveground Storage Tanks and Portable Containers (STI SP001).


The inspections shall be conducted by designated and knowledgeable person and documented as part of the total preventative maintenance program. The records of the inspections shall be retained for a minimum period of three year.

**Inspection and Test Plan**

Inspection	Standard	Frequency	Inspector	Inspection Form
Above Ground Storage Tanks and Piping	STI SP001	Monthly	Internal Personnel	 Appendix G - STI SP001 Monthly Tank
Above Ground Storage Tanks and Piping	STI SP001	Annual	STP001 or API Inspector	 Appendix G - STI SP001 Annual Tank
Above Ground Storage Overfill Alarm	STI SP001	Annual	STP001 or API Inspector	See Above Document
Above Ground Storage Liquid Level Gauge	STI SP001	Annual	STP001 or API Inspector	See Above Document
Above Ground Storage Tanks and Piping	STI SP001	20-Year	STP001 or API Inspector	Vendor Documentation
Portable Containers	STI SP001	Monthly	Internal Personnel	 Appendix G - STI Portable Container I
Record of Secondary Containment Observation and Drawings	40 CFR 112.8	Frequently	Internal Personnel	 Record of Secondary Containn

**Above Ground Storage Tanks and Piping.** Under the STI SP0001 Standard, a visual inspection protocol is only required for the above ground storage tanks due to their capacity and adequate secondary containment. Therefore, the inspection and testing protocol indicated above is acceptable and will satisfy the integrity testing requirements.


**Overfill Alarm.** The overfill alarm will be tested on an annual basis to determine functionality. The tanks are equipped with dual high-level switches, approved emergency vents and fusible link valves, as well as, a visual direct-reading or automated tank level gauge.

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Liquid Level Gauges. The liquid level gauge shall be tested to determine functionality. The liquid level gauge are mechanical sight gauges that indicate the liquid level based on the head pressure that it exerts on a column of liquid.

Portable Containers. Under the STI SP0001 Standard, a visual testing inspection protocol is only required for potable containers such as drums and totes. A visual inspection of all portable containers is conducted on a daily basis as part of the Facility Inspection. In addition, a baseline determination of metal thickness of a portable container is not required. Therefore, the inspection and testing protocol indicated above is acceptable and will satisfy the integrity testing requirements.

Secondary Containment. Under 40 CFR 112.8, a visual inspection shall be conducted on a daily basis as part of the Facility Inspection which also addressed any accumulation of precipitation from a natural weather event (e.g., rainwater, snow, ice, etc.) from the secondary containment structures associated with above ground storage tanks. The evaluation and discharge events are documented.

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**APPENDIX H  
SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN TRAINING  
PROTOCOL**

**PURPOSE** To ensure employees understand the impact that their job responsibilities may have on causing spills and the proper prevention, controls and countermeasures should a spill occur.

**SCOPE** Based upon the on-site storage of oil and oil-related products in containers of 55-gallons or greater with a total aggregated amount of 1,320-gallons or more.

**REQUIREMENT** Training is required initially and annually thereafter.

**EQUIPMENT** Employees shall be knowledgeable in the equipment in the area including, but not limited to:

- Spill Kits (Location and Contents)

**TRAINING MATERIALS** The below materials should be used to meet the training requirements:

- Spill Prevention, Control and Countermeasure: Training Video
- Spill Prevention, Control and Countermeasure Presentation
- WDNR Handout: Hazardous Substance Spills in WI (RR604)
- WDNR Handout: Reporting Hazardous Spills (RR560)
- Spill Prevention, Control and Countermeasure Plan (WI-EHS-016)


**TRAINING TOPICS** The elements covered within the training program includes:

- Introduction
- SPCC Plan and The Law
- Oil Handling Equipment
- Oil Spill Prevention Controls
- Loading and Unloading
- Spill Response
- Security
- Review the Spill Prevention, Control and Countermeasure Plan
- Discussion of Potential Contaminates at the Site
- Discussion of Potential Improvements
- Discussion of any Spills at the Site in the past year

**DOCUMENTATION** Maintain the sign-in sheet as documentation of training and comprehension.

**ADDITIONAL COMMENTS** None.

**APPENDIX L: TRAINING AND COMPETENCE PLAN**

Document No.: <b>OPS-SOP-032</b>	Revision Date: <b>6/23/2022</b>	Revision No.: <b>005</b>	
Document Title: <b>TRAINING AND COMPETENCE</b>			
Certified By: <b>CEO</b>		Certified Date: <b>6/23/2022</b>	

**1.0 PURPOSE**

1.1 The purpose of the training and competency plan is to ensure employees are instructed and knowledgeable to perform their job responsibilities in a manner that ensures compliance with the facility's requirements, including but not limited to, procedures related to hazardous waste management/handling, emergency response and chemicals hazards/safety.

**2.0 SCOPE**

2.1 The scope of this document covers training requirements for the individual positions present within the organization in accordance with the organization chart. In addition, it establishes safety briefings for visitors and contractors that may become present on-site.

**3.0 LEGAL COMPLIANCE**

3.1 The organization has developed a training program based on the regulatory requirements pursuant to applicable requirements under the Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations 1910.120(e), Environmental Protection Agency (EPA) 40 CFR 264.16, WDNR 670.014(2)(l), the Department of Transportation (DOT) 49 CFR 172.704 and their associated reference regulatory requirements, as well as, facility specific processes and applicable state and local regulations.

**4.0 DEFINITIONS**

4.1 Competent. Ability to apply knowledge and skills to achieve intended results.

**5.0 ORGANIZATION AND PERSONNEL RESPONSIBILITIES**

5.1 CEO. The CEO shall act as the program administrator and ensure all employees receive the training required to conduct their job. In addition, the CEO may conduct or direct initial or reoccurring training, as required.

5.2 Technical Service Manager. The Technical Service Manager will be responsible for conducting or directing initial or reoccurring training as directed by the CEO.

5.3 Operations Manager. The Operations Manager will be responsible for conducting or directing initial or reoccurring training as directed by the CEO.


5.4 Sales and Marketing Manager. The Sales and Marketing Manager will be responsible for conducting or directing initial or reoccurring training as directed by the CEO.

5.5 Employees. Employees shall be responsible for participating and completing the initial required training and maintaining the required competency to fulfill their job responsibilities through reoccurring training as required.

**6.0 ORGANIZATION CHART and JOB DESCRIPTIONS**

6.1 The Organizational Chart (Appendix A) depicts the positions at the organization, supervisory personal for each position and identifies those job titles which are directly or indirectly involved with the management and handling of waste, waste related activities and support, and emergency management.

6.2 The organization Job Description Summary (Appendix B) summarizes each employee's job responsibilities.

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**7.0 TRAINING PROGRAMS**

7.1 Employees shall receive training on the various training courses appropriate to the level of their expected job position and responsibilities as depicted on the Training Matrix (Appendix C) to meet actual job tasks. The objective of the training shall be to ensure that personnel are knowledgeable to perform their job responsibilities including, but not limited to, hazardous waste management procedures, emergency procedures, emergency equipment and system, personal protective equipment, and other relevant topics.

**8.0 TRAINING OUTLINE**

8.1 Training outlines have been developed for each training course identified in the Training Matrix (Appendix C) associated with the positions within the organization.

**9.0 NEW HIRE TRAINING and FREQUENCY**

9.1 Training shall be provided at the time of initial employment and reoccurring training provided as depicted in the Training Matrix (Appendix C). Training for all new hires shall be completed within 6-months of their start date and before working positions, locations or capacities without immediate supervision. Reoccurring training shall be provided as depicted in the Training Matrix (Appendix C), procedural change, drills/exercises demonstrate opportunities for improvement or the employee demonstrates a lack of comprehension.

**10.0 TRAINING DOCUMENTATION**

10.1 The employee training record contains a job title. Each job title has a job description that includes the requisite skill, education or other qualifications, and the duties of employees assigned to each position. Training requirements are linked to the job titles in the Training Matrix (Appendix C). Records shall be maintained for all employees for all training received which may include a certificate, written examination, a sign-in sheet or other type of documentation to validate that training has been completed. Training records shall be retained for all current employees. Training records for former employees and for visitors and contractors shall be maintained for three years from their termination/resignation date.

**11.0 COMPETENCY**


11.1 The organization has determined the necessary competency of employees conducting work under its control that affects its ability to fulfill its compliance obligations and organizational requirements through documented job descriptions for each position which identifies that education, experience and skills required for the position. An employee meeting the requirements of the job description for their respective position and whom has completed the internal training programs shall be considered competent.

11.2 Employee's competency shall be continuously evaluated to assess their effectiveness through the annual performance review process, electronic or written examination, quality of work performed and manager's observation of work conducted. In addition, the employee shall participate in continuous education, seminars, and training courses as directed by the organization to ensure the level of competency for each job description is maintained or elevated, as the job requires.

**12.0 VISTORS, CONTRACTORS and TRANPORTATION PERSONNEL**

12.1 Visitors that become present on-site and do not conduct work shall be escorted by an employee at all time when outside of office areas. In addition, they will be provided with the Visitor Safety Information Sheet.



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- 12.2 Contractors that become present on-site to conduct work will be required to review and acknowledge the information present in the Contractor HSE Manual which includes emergency and evacuation procedures, hazards present at the facility, associated facility procedures and limitations prior to the start of work.
- 12.3 Third party transporters Transportation vehicle personal that become present on-site for which transferring operations are conducted involving their vehicle be provided with the Visitor Safety Information Sheet and will be required to follow the direction by the Enviro-Safe personnel established in the Unloading/Loading Procedure. The Unloading/Loading Procedure establishes the protocol to prepare the vehicle for loading/unloading activities. Both the transportation vehicle personnel (responsible for the function of the vehicle) and facility operations personnel (responsible for the loading/unloading activities) are required to be present during these operations.
- 12.4 The organization does not utilize temporary employees that conduct work in licensed hazardous waste storage or treatment areas.

**13.0 RELATED DOCUMENTS**


- 13.1 Appendix A - Organization Chart  
 13.2 Appendix B - Job Description Summary  
 13.3 Appendix C - Training Matrix

**14.0 REFERENCE DOCUMENTS**

- 14.1 None

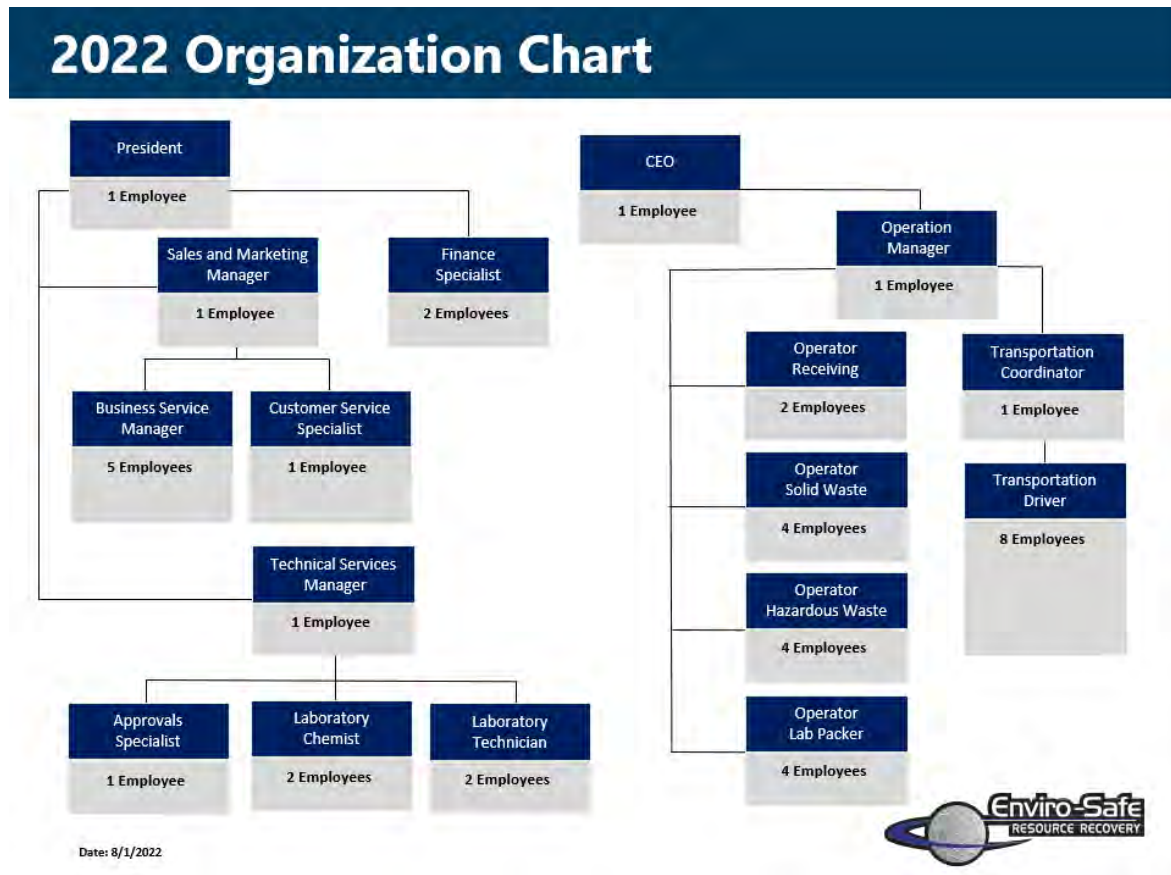
**15.0 REVISION SUMMARY**


Revision	Date	Description of changes	Requested By
000	2/3/2020	Initial Release	D. Zellmer
001	3/20/2020	Revised to include additional job description summary.	D. Zellmer
002	8/19/2021	Revised to include WDNR recommendations.	D. Zellmer
003	9/3/2021	Revised to include WDNR recommendations.	D. Zellmer
004	10/11/2021	Revised to include WDNR recommendations.	D. Zellmer
005	6/23/2022	Revised to include WDNR recommendations and update Organization Chart.	D. Zellmer

Document No.: <b>OPS-SOP-032</b>	Revision Date: <b>6/23/2022</b>	Revision No.: <b>005</b>	
Document Title: <b>TRAINING AND COMPETENCE</b>			
Certified By: <b>CEO</b>		Certified Date: <b>6/23/2022</b>	

## APPENDIX A ORGANIZATION CHART






Below is the organization chart with the estimated number of employees hired for each job position at the organization.



Document No.: <b>OPS-SOP-032</b>	Revision Date: <b>6/23/2022</b>	Revision No.: <b>005</b>	
Document Title: <b>TRAINING AND COMPETENCE</b>			
Certified By: <b>CEO</b>		Certified Date: <b>6/23/2022</b>	

**APPENDIX B  
JOB DESCRIPTION SUMMARY**

Below is a list of the job position at the organization for which job descriptions have been developed that may be directly or indirectly involved with the handling of hazardous waste at the organization.

Job Title	Job Description	Job Title	Job Description
CEO	 CEO.doc	Laboratory Technician	 Laboratory Technician.doc
President	 President.doc	Operations Manager	 Operation Manager.doc
Sales & Marketing Manager	 Sales and Marketing Manager	Operator - Receiving	 Operator - Receiving.doc
Business Service Manager	 Business Service Manager.doc	Operator - Solid Waste	 Operator - Solid Waste.doc
Customer Service Specialist	 Customer Service Specialist.doc	Operator - Hazardous Waste	 Operator - Hazardous Waste.doc
Financial Specialist	 Finance Specialist.doc	Operator - Lab Packer	 Operator - Labpacker.doc
Technical Service Manager	 Technical Service Manager.doc	Transportation Coordinator	 Transportation Coordinator.doc
Approvals Specialist	 Approval Specialist.doc	Transportation Driver	 Transportation Driver.doc
Laboratory Chemist	 Laboratory Chemist.doc		



## Job Description

<b>Job Title:</b>	CEO	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	N/A	<b>Type:</b>	Full-Time
<b>Manager:</b>	N/A	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position is responsible for providing executive management and direction of the organization.

### Education/Experience

- Bachelor of Science in Business, Operations, or related discipline required
- 10 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- None

### Knowledge, Skills and Ability

- Excellent leadership skills
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- Leadership. Creates an environment and culture that focuses on fulfilling the organization's mission, vision and values. Leading and motivating subordinated to advance employee engagement and to develop a high performing managerial team. Represent the company at important business functions, community events, industry training and events and networking opportunities.
- Management. Operational management of all business departments. Develop high level business strategic planning to ensure alignment with short-term and long-term objectives. Monitor company performance by measuring and analyzing results, initiating corrective actions and minimizing the impact of variances. Ensure quality metrics are achieved through sound business processes following regulatory agency guidelines. Implement operating cost controls to maximize organization profitability
- Operations. Oversees the overall operations of the organization. Oversees site utilization, expansions, acquisition integration and overall expenses.
- Compliance. Maintain current knowledge of compliance and regulatory standards affecting the facility including permits, license and other requirements. Support all business departments to ensure continued compliance.
- Other. Act as the primary emergency coordinator. Conduct other emergency management activities as directed in the Emergency Management Plan.

### Non-Essential Duties and Responsibilities

- Perform other duties as required.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to



## Job Description

hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Occasionally	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A
<b>Apron/Lab Coat:</b>	N/A		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description



## Job Description

<b>Job Title:</b>	President	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	N/A	<b>Type:</b>	Full-Time
<b>Manager:</b>	N/A	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position is responsible for providing executive management and direction of the organization.

### Education/Experience

- Bachelor of Science in Business Management or related discipline required
- 10 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- None

### Knowledge, Skills and Ability

- Excellent leadership skills
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- **Leadership.** Creates an environment and culture that focuses on fulfilling the organization's mission, vision and values. Leading and motivating subordinated to advance employee engagement and to develop a high performing managerial team. Represent the company at important business functions, community events, industry training and events and networking opportunities.
- **Management.** Operational management of all business departments. Develop high level business strategic planning to ensure alignment with short-term and long-term objectives. Monitor company performance by measuring and analyzing results, initiating corrective actions and minimizing the impact of variances. Ensure quality metrics are achieved through sound business processes following regulatory agency guidelines. Implement operating cost controls to maximize organization profitability. Projecting acquisition and expansion prospects, analyzing organization operations, identifying opportunities for improvement, cost reduction, system enhancements and accumulating capital to fund expansion.
- **Sales and Marketing.** Manages the design and implementation of new products and services. Oversees brand development and the implementation of effective marketing strategies. Develops business prospects by studying economic trends and revenue opportunities. Manage and conduct contract negotiations.
- **Financial.** Oversee finance performance and risk profile while ensuring that all regulatory obligations are met. Ensure the timely month-end financial and operations reviews. Overall responsible for the profile and losses of the organization.
- **Compliance.** Maintain current knowledge of compliance and regulatory standards affecting the facility including permits, license and other requirements. Support all business departments to ensure continued compliance.
- **Other.** Act as the alternative emergency coordinator in the absence of the primary emergency coordinator and other personnel. Conduct other emergency management activities as directed in the Emergency Management Plan.



## Job Description

### Non-Essential Duties and Responsibilities

- Perform other duties as required.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Occasionally	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A
<b>Apron/Lab Coat:</b>	N/A		

### Employee Acknowledgement





## Job Description

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I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Sales and Marketing Manager	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Sales and Marketing	<b>Type:</b>	Full-Time
<b>Manager:</b>	President	<b>Approval Date:</b>	10/11/2021

### Job Summary:

This position is responsible for the overall activities of sales and marketing associated with the

### Education/Experience

- Bachelor of Science in Business, Operations, or related discipline required
- 4 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- Certified Hazardous Material Manager (CHMM) preferred

### Knowledge, Skills and Ability

- Excellent leadership skills
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- **Management.** Build and lead the overall sales and marketing of the organization to ensure daily tactical activities are completed and long-term goals of the organization are achieved including position staffing. Model high standards of good decision-making and judgment, collaboration, agility, and accountability. Hire and develop the best people for skills and culture. Actively lead and engage in talent development to create high-performing talent within area of responsibility. Encourage leadership and creativity from individual employees, leveraging individual strengths and all levels of talent.
- **Sales.** Responsible for delivering top and bottom-line business goals and results. Effectively communicate the brand strategy of where to play, how to win, shape sales strategies while actively leading alignment across all departments. Ensure delivery of current year business and financial results to ensure topline growth through new business channel opportunities. Drive and leverage pricing power. Maximize pricing power recognizing the pricing corridors and carefully manage and maximize margins. Identify, build, and develop essential capabilities to deliver results while remaining agile. Leverage internal capabilities to achieve agility and speed in the marketplace.
- **Marketing.** Lead strategic market and portfolio analysis by identifying growth opportunities. Execute the brand strategy to achieve sales and profitability goals with stealthy excellence. Implement a winning marketing and communications strategy that maximizes customer engagement; earned media value and leverages differential competitive advantage.
- **Customer Support.** Assist clients with sampling and profiling activities. Work with internal personnel in determining proper treatment methodology based on client's requests and facility acceptability criteria. Facilitate communication for scheduled pickups and on-site direction, as needed. Complete other customer support functions as warranted.
- **Administrative.** Conduct supporting sales and marketing functions such as monitoring organization performance by measuring and analytic results, initiating corrective actions and minimizing the impact of variances. Report performance metrics to upper management.



## Job Description

- Compliance. Maintain current knowledge of compliance and regulatory standards. Develop professional relationships with industry associations and proactively monitor relevant governmental bodies to identify changes in legislation/regulations. Support internal and external clients by providing technical expertise and industry best practice knowledge and resources. Develop, implement and maintain standard operating procedures and work instructions for all functions/activities under area of responsibility.

### Non-Essential Duties and Responsibilities

- Perform other duties as required.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Occasionally	<b>Gloves:</b>	N/A



## Job Description

Hard Hat:	N/A	Clothing/Coveralls/Tyvek:	N/A
Hearing Protection:	N/A	Respirator- Dust Mask:	N/A
Steel-Toe Boots/Shoes:	N/A	Respirator - Air-Purifying:	N/A
Apron/Lab Coat:	N/A		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Business Service Manager	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Sales and Marketing	<b>Type:</b>	Full-Time
<b>Manager:</b>	Sales and Marketing Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

The primary responsibility for this position is managing sales of the organization's products and services within a defined geographical area and market segment.

### Education/Experience

- Bachelor's Degree in Marketing, Business or Science related studies is preferred
- A minimum of 4-years' experience in environmental or chemical sales

### Certification/Licenses

- Driver's License Required
- Certified Hazardous Material Manager (CHMM) Certification preferred

### Knowledge, Skills and Ability

- Strong team member
- Strong customer service orientated
- Strong interpersonal and communication skills
- Ability to manage multiple projects
- Ability to present technical information
- Computer proficiency

### Essential Duties and Responsibilities

- Sales - General. Develop consistent, profitable sales growth within a defined territory and specific market segments. Identifies objectives, strategies and action plans to improve short-term and long-term sales and revenue growth with existing clients and new clients. Utilize existing network of contacts to increase market share.
- Sales - Development. Identify and develop new business opportunities within the defined territory and market segment assigned for the products and services offered. Identifying target accounts and provide annual forecasting of new sales revenue to meet or exceed organization expectations. Full cycle sales (from identifying opportunities, meeting with prospect, crafting proposal and closing engagement). Manage sales reporting as needed.
- Sales - Maintenance. Manage a portfolio of existing accounts for retention and continue revenue growth. Maintain client relationships through face-to-face meetings and other communication tools. Maintain and expand relationship.
- Marketing. Develop company brand recognition through the industry. Collaborate with the sales and marketing team to develop strategies for marketing efforts, sales promotions and trade shows.
- Customer Support. Assist clients with sampling and profiling activities. Work with internal personnel in determining proper treatment methodology based on client's requests and facility acceptability criteria. Facilitate communication for scheduled pickups and on-site direction, as needed. Complete other customer support functions as warranted.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Support external clients by providing technical expertise and industry best practice knowledge and resources.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.



## Job Description

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Frequently	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Occasionally		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Occasionally
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron/Lab Coat:</b>	Continuously		

### Employee Acknowledgement



## Job Description

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I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Customer Service Specialist	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Sales and Marketing	<b>Type:</b>	Full-Time
<b>Manager:</b>	Sales and Marketing Manager	<b>Approval Date:</b>	6/23/2022

### Job Summary:

This position is primary responsibility for overall customer service for customer satisfaction and support to the sales and marketing team to facilitate company growth.

### Education/Experience

- Bachelor's degree in Environmental Sciences, Chemistry or Business.
- 2 or more years' experience in customer service or related role.

### Certification/Licenses

- None

### Knowledge, Skills and Ability

- Strong team player
- Strong customer service orientated
- Strong problem-solving abilities and able to work in a fast-paced environment
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Customer Support. Use telephone effectively and appropriately to assist clients with inquiries and service request to provide a high-level customer service experience. Receive customer orders and initiate sales order generation and routing. Interface with clients and internal staff to assist to address inquiries from clients, including presenting the organization's full-service capabilities to potential and current client base. Address client challenges, communicate them to the Sales Business Manager, and achieve problem resolution with limited guidance. Interact cooperatively with internal staff to provide solutions and resolution for client's needs.
- Sales Support. Support sales and marketing team with their portfolio of accounts for retention and continue revenue growth. Assist in qualifying incoming leads and direct to sales and marketing for follow-up. Collaborates with the sales and marketing team to develop sales strategies to improve market share for all products and services. Assist sales and marketing team with preparing quotes for proposed services to be rendered, new client set-up, profiling, approvals, recertification and other documentation.
- Administrative Functions. Maintain systems related to customer database, shipping and COD/COR documentation, customer price schedule and other documentation.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Support external clients by providing technical expertise and industry best practice knowledge and resources.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential





## Job Description

functions.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Occasionally	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A
<b>Apron/Lab Coat:</b>	N/A		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Finance Specialist	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Sales and Marketing	<b>Type:</b>	Full-Time
<b>Manager:</b>	Sales and Marketing Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

The primary responsibility for this position is to provide financial, administrative and clerical services including accuracy and efficiency of operations, processing and monitoring incoming payments and securing revenue by verifying and posting receipts.

### Education/Experience

- A high school diploma or equivalent required
- Experience with QuickBooks preferred

### Certification/Licenses

- None

### Knowledge, Skills and Ability

- Strong team member
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- Accounts Receivable. Process client invoices. Code, post and receipt payments. Monitor client accounts for nonpayment and/or delayed payment. Perform all necessary account, bank and other reconciliations. Prepare and submit client statements. Report greater than 60 days past due accounts to President for potential "credit hold" classification. Maintain client files.
- Accounts Payable. Check, verify and process invoices in accordance with work performed. Maintain cost/sell pricing for each client and relay any changes to Sales Personnel. Prepare payments for signature. Sort, code and enter accounts payable data. Analyze discrepancies and unpaid invoices. Maintain vendor files.
- Finance Support Functions. Conduct the day-to-day operational and administrative needs of the organization to include issuing purchase orders, processing materials received and providing financial reports as requested. Keep QuickBooks current.
- HR Support Functions. Track employee vacation and personnel time. Validate and approve payroll. Administer employee expense reports. Complete quarterly commission statements.
- Compliance. Maintain current knowledge of compliance and regulatory standards for drivers and vehicles. Support internal personnel by providing technical expertise and industry best practice knowledge and resources. Comply and enforce all compliance, regulatory and company policies and procedures.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable



## Job Description

accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	N/A	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A
<b>Apron/Lab Coat:</b>	N/A		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_



## Job Description

Date: \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Technical Service Manager	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Technical Services	<b>Type:</b>	Full-Time
<b>Manager:</b>	President	<b>Approval Date:</b>	6/23/2022

### Job Summary:

This position is responsible for the overall activities of technical services to include profiles, approvals, designating internal processing and treatments, outbound facility utilization and laboratory activities associated with the receipt and shipment of waste materials.

### Education/Experience

- Bachelor of Science in Chemistry or related discipline required
- 4 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- 40-hour Hazwoper Certification
- Certified Hazardous Material Manager (CHMM) Certification preferred

### Knowledge, Skills and Ability

- Strong team leader
- Strong customer service orientated
- Strong interpersonal and communication skills
- Strong problem-solving skills
- Ability to manage multiple projects and meet deadlines
- Ability to present technical information
- Computer proficiency

### Essential Duties and Responsibilities

- **Management.** Build and lead the overall technical services of the organization to ensure daily tactical activities are completed and long-term goals of the organization are achieved including position staffing. Model high standards of good decision-making and judgment, collaboration, agility, and accountability. Hire and develop the best people for skills and culture. Actively lead and engage in talent development to create high-performing talent within area of responsibility. Encourage leadership and creativity from individual employees, leveraging individual strengths and all levels of talent.
- **Client Profiles and Approvals.** Manage the regulatory department and develop processes for the review, approval and acceptance of materials from clients (inbound) to the facility including recertifications that reflects the facilities operating permits and complies with regulatory requirements. Establish business system software related to the approval and recertification process including inputs for manifest and land disposal restrictions forms. Ensure the maintenance of a repository of documents to support this process.
- **Receiving Facilities Profiles and Approvals.** Develop and manage the processes for the submittal, approval and acceptance of materials to receiving facilities (outbound) including recertification. Develop and maintain relationships with receiving facilities. Determine facility utilization based upon pricing, qualifications, and profit margin using market conditions and organizational goals. Maintain continued price negotiation. Ensure a repository of documents to include, but not limited to, quotes, permits, licenses, audit packages and certificate of insurance.
- **Discrepancies.** Assist in the documentation and resolution of discrepancies as it relates to the shipping documents and associated paperwork, material received and other inconsistencies that arise that may require action for resolution.
- **Processing and Treatment.** Manage and work with managers to determine waste consolidation



## Job Description

approaches and chemical compatibilities for efficient in outbound loads. Assist, as needed, to conduct compatibility sampling prior to bulking/consolidation, fuel blending and acid/base neutralization.

- **Laboratory.** Responsible for the overall function of the on-site laboratory to include sampling and testing, document and communicate test results, laboratory equipment (operation, maintenance, calibration, etc.), housekeeping, and supplies. Develop and implement standard operating procedures for laboratory activities to be conducted.
- **Samples.** Develop and manage a relationship with outside laboratories including negotiating favorable pricing. Establish sample paperwork and records electronic management system. Including a system for purging unused or returned samples to be lab packed when no longer needed.
- **Labpack Projects.** Oversee the preparation of lab pack project scope and costing including the safe and compliant execution of lab pack projects including proper identification, classification, segregation, packaging and transportation in accordance with EPA and DOT regulations. Assist on labpack project as necessary.
- **Industrial Service Projects.** Oversee the preparation of industrial service project scope and costing.
- **Consulting Service.** Conduct consulting services to clients as necessary to include, but not limited to, on-site waste management, training and other environmental consulting services. Create and maintain a repository of documents generated as part of the consulting services rendered.
- **Compliance.** Maintain current knowledge of compliance and regulatory standards. Develop professional relationships with industry associations and proactively monitor relevant governmental bodies to identify changes in legislation/regulations. Support internal and external clients by providing technical expertise and industry best practice knowledge and resources. Develop, implement and maintain standard operating procedures and work instructions for all functions/activities under area of responsibility.
- **Other.** Act as the alternative emergency coordinator in the absence of the primary emergency coordinator and other personnel. Conduct other emergency management activities as directed in the Emergency Management Plan.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable   Occasionally = 1-35%   Frequently = 36-66%   Continuously = 67-100%



## Job Description

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Frequently	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Occasionally		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Occasionally
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron/Lab Coat:</b>	Continuously		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Approvals Specialist	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Technical Services	<b>Type:</b>	Full-Time
<b>Manager:</b>	Technical Services Manager	<b>Approval Date:</b>	6/23/2022

### Job Summary:

This position conducts reviews and approvals of waste and materials received at the facility and establishes the internal processing (depack, repack, consolidation, bulking, fuel blending) or transshipment of containers.

### Education/Experience

- Associate or Bachelor of Science in chemistry or related discipline required.
- 2 or more years' experience in the hazardous waste, chemical or related field preferred.

### Certification/Licenses

- 40-hour Hazwoper Certification

### Knowledge, Skills and Ability

- Strong team player
- Strong customer service orientated
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Client Profiles and Approvals. Conduct review, approval and acceptance of materials from clients (inbound) to the facility including recertifications that reflects the facilities operating permits and complies with regulatory requirements and internal procedures. Maintain business system software related to the approval and recertification process including inputs for manifest and land disposal restrictions forms. Create and maintain a repository of documents to support this process.
- Customer Support. Assist clients with sampling and profiling activities. Work with internal personnel in determining proper treatment methodology based on client's requests and facility acceptability criteria. Facilitate communication for scheduled pickups and on-site direction, as needed. Complete other customer support functions as warranted.
- Receiving Facilities Profiles and Approvals. Manage the process for the submittal, approval and acceptance of materials to receiving facilities including recertification. Develop and maintain relationships with receiving facilities. Determine facility utilization based upon pricing, qualifications, and profit margin using market conditions and organizational goals. Create and maintain a repository of documents to include, but not limited to, quotes, permits, licenses, audit packages and certificate of insurance.
- Shipping Documents and Associated Paperwork. Overall responsibility for the information contained on the shipping documents and associated paperwork generated for clients from the business software system. Includes the process, maintenance and submittal of the e-manifest system.
- Discrepancies. Assist in the documentation and resolution of discrepancies as it relates to the shipping documents and associated paperwork, material received and other inconsistencies that arise that may require action for resolution.
- Samples. Prepare and send samples to designate outside laboratories or facilities as requested.





## Job Description

Follow-up on results and communicate them to applicable internal personnel. Maintain sample paperwork and records in an electronic management system. Maintain a system for purging unused or returned samples to be lab packed when no longer needed.

- Labpack Projects. Prepare lab pack project scope and costing. Responsible for the safe and compliant execution of lab pack projects including proper identification, classification, segregation, packaging and transportation in accordance with EPA and DOT regulations. Assist on labpack project as necessary.
- Industrial Service Projects. Assist to prepare industrial service project scope and costing.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Develop professional relationships with industry associations and proactively monitor relevant governmental bodies to identify changes in legislation/regulations. Support internal and external clients by providing technical expertise and industry best practice knowledge and resources.
- Maintain standard operating procedures and work instructions for functions/activities under area of responsibility.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		



## Job Description

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Occasionally	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A
<b>Apron/Lab Coat:</b>	N/A		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Laboratory - Chemist	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Technical Services	<b>Type:</b>	Full-Time
<b>Manager:</b>	Technical Services Manager	<b>Approval Date:</b>	10/11/2021

### Job Summary:

This position conducts fingerprint screens and analysis to confirm conformity of waste received to expectations and for outbound load conformity to receiving facility specifications.

### Education/Experience

- Bachelor of Science in Chemistry or related discipline required
- 2 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- 40-hour Hazwoper Certification

### Knowledge, Skills and Ability

- Strong team player
- Strong customer service orientated
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency
- Ability to follow through on assignments and problem solve

### Essential Duties and Responsibilities

- Incoming Waste. Coordinate and execute daily processing of receiving waste samples and testing. Record information neatly and accurately and retain records in an electronic management system. Communicate results in a clear, concise report.
- Prepare and send samples to designated outside laboratories or facilities as required. Follow-up on results and communicate them to applicable internal personnel.
- Processing and Treatment. Work with managers to determine waste consolidation approaches and chemical compatibilities for efficient in outbound loads. Conduct compatibility sampling prior to bulking/consolidation, fuel blending and acid/base neutralization.
- Outbound Waste. Coordinate and execute daily processing of outbound waste samples and testing. Record information neatly and accurately and retain records in an electronic management system. Communicate results in a clear, concise report.
- Laboratory Equipment. Calibrate and maintain equipment in accordance with manufacturing and laboratory standards. Assist in relevant instrument maintenance, troubleshooting and repairs, as required.
- Laboratory Operations. Employ safe work practices including knowledge of the Waste Analysis Plan, Chemical Hygiene Plan, Standard Operating Procedures and other applicable regulatory requirements.
- Customer Support. Assist clients with sampling and profiling activities. Work with internal personnel in determining proper treatment methodology based on client's requests and facility acceptability criteria. Facilitate communication for scheduled pickups and on-site direction, as needed. Complete other customer support functions as warranted.
- Administrative. Provide additional laboratory support for standard preparation and other general laboratory duties.



## Job Description

- Good Housekeeping. Maintain good housekeeping of the laboratory areas to ensure a clean and organized spaces at all times. Dispose of samples and retains on a routine basis.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Support internal personnel by providing technical expertise and industry best practice knowledge and resources. Comply and enforce all compliance, regulatory and company policies and procedures.

### Non-Essential Duties and Responsibilities

- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Frequently	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Occasionally		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently



## Job Description

<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Occasionally
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron/Lab Coat:</b>	Continuously		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Laboratory - Technician	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Technical Services	<b>Type:</b>	Full-Time
<b>Manager:</b>	Technical Services Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position conducts daily processing of waste samples to confirm conformity of waste received to expectations and for outbound load conformity to receiving facility specifications.

### Education/Experience

- High School diploma or General Education Development (GED) required
- Associated or Bachelor's degree in Chemistry or related science discipline preferred

### Certification/Licenses

- 40-hour Hazwoper Certification

### Knowledge, Skills and Ability

- Strong team player
- Strong customer service orientated
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency
- Ability to follow through on assignments and problem solve

### Essential Duties and Responsibilities

- Incoming Waste. Coordinate and execute daily processing of receiving waste samples and testing. Record information neatly and accurately and retain records in an electronic management system. Communicate results in a clear, concise report.

- Processing and Treatment. Work with managers to determine waste consolidation approaches and chemical compatibilities for efficient in outbound loads. Conduct compatibility sampling prior to bulking/consolidation, fuel blending and acid/base neutralization.

- Outbound Waste. Coordinate and execute daily processing of outbound waste samples and testing. Record information neatly and accurately and retain records in an electronic management system. Communicate results in a clear, concise report.

Laboratory Operations. Employ safe work practices including knowledge of the Waste Analysis Plan, Chemical Hygiene Plan, Standard Operating Procedures and other applicable regulatory requirements. Follow standard operating procedures or laboratory activities to be conducted.

- Laboratory Equipment. Daily equipment calibration in accordance with manufacturing and laboratory standards. Assist in relevant instrument maintenance, troubleshooting and repairs, as required.

- Customer Support. Assist clients with sampling and profiling activities. Work with internal personnel in determining proper treatment methodology based on client's requests and facility acceptability criteria. Facilitate communication for scheduled pickups and on-site direction, as needed. Complete other customer support functions as warranted.

- Administrative. Provide additional laboratory support for standard preparation and other general laboratory duties.

- Good Housekeeping. Maintain good housekeeping of the laboratory areas to ensure a clean and



## Job Description

organized spaces at all times.

- Compliance. Maintain current knowledge of compliance and regulatory standards. Support internal personnel by providing technical expertise and industry best practice knowledge and resources. Comply and enforce all compliance, regulatory and company policies and procedures.

### Non-Essential Duties and Responsibilities

- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Frequently	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Occasionally		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Occasionally



## Job Description

<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron/Lab Coat:</b>	Continuously		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_





## Job Description

<b>Job Title:</b>	Operation Manager	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	CEO	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position is responsible for the overall activities of operations to include transportation, management, storage, and operating activities to ensure compliant, accurate, timely and efficient flow.

### Education/Experience

- Bachelor of Science in Operations, Chemistry or related discipline required
- 4 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- Certified Hazardous Material Manager (CHMM) preferred

### Knowledge, Skills and Ability

- Strong team leader
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- Management. Management. Manage the overall operations of the organization to ensure daily tactical activities are completed. Establish and review metrics to measure productivity and drive goal achievement, determine areas needing cost reduction and program improvement. Initiate continuous improvement efforts.
- Operations. Directs and manages the overall scheduling and receiving processes. Directs and manage the solid waste operations (bulking, consolidation repack/depac), hazardous waste operations (bulking, consolidation, repack/depac, fuel blending), used oil processing, universal waste handling, and solvent continue use management. Develop and maintain relationships with receiving facilities. Conduct continued data analyze to identify and capture opportunities to reduce cost, automate and create best practice processes, and improve client service. Create and maintain a repository of documents to support operation regulatory requirements and obligations including, but not limited to, permits, tracking and reporting.
- Inventory Management. Direct and manage the storage parameters of the warehouse to ensure compliance with licenses and permits include the use of inventory management methodology. Create and maintain a repository of documents to support inventory management regulatory requirements and obligations including, but not limited to, permits, tracking and reporting.
- Logistics. Oversee the internal scheduling and transportation fleet to ensure efficient and cost-effective routes while fulfilling a high level of customer satisfaction. Develop and maintain relationships with logistic partners based upon qualifications, pricing and profit margin using market conditions and organization goals.
- Supply Management. Direct and manage the supplies for customer to ensure appropriate inventory levels and ensure adequate supplies available upon demand.
- Compliance. Maintain current knowledge of compliance and regulatory standards affecting the



## Job Description

facility including permits, license and other requirements. Develop, implement and maintain standard operating procedures, work instructions and best practices for all functions/activities under area of responsibility. Facilitate the safety culture of the facility.

Inspections. Direct and manage the facility inspection program. Follow-up on issues identified as the result of inspections for resolution. Maintain the upkeep of the property, building and associated equipment.

- **Staffing.** Determine staffing requirements, and assist in the interview, hiring and training of new employees as necessary. Conduct training as required. Perform employee annual reviews and participate on disciplinary activities, as needed.
- **Other.** Act as the alternative emergency coordinator in the absence of the primary emergency coordinator and other personnel. Conduct other emergency management activities as directed in the Emergency Management Plan.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable    Occasionally = 1-35%    Frequently = 36-66%    Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Frequently	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Occasionally		



## Job Description

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Occasionally
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron/Lab Coat:</b>	Continuously		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Operator - Receiving	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Operations Manager	<b>Approval Date:</b>	10/26/2021

### Job Summary:

This position unloads transportation vehicles scheduled into the facility, received material, sample the contents of incoming containers and directing them to the appropriate processing area while adhering to state and federal environmental, health and safety regulations.

### Education/Experience

- High School diploma or General Education Development (GED) required
- Associate or Bachelor's degree in Chemistry or related science discipline preferred

### Certification/Licenses

- 40-hour Hazwoper Certification
- Valid CDL Class B Driver's License with Hazmat and Tanker Endorsement preferred

### Knowledge, Skills and Ability

- Strong team player
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to operate a forklift
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Receiving. Unloading of waste materials utilizing appropriate equipment (drum dollies, forklift, etc.) and stage in designated location. Performs container receiving activities such as labeling, inspection, count verification, appropriate and complete shipping documents, etc.
- Container Observations and Sampling. Inspecting the condition of incoming containers. Verify the manifest information against the load being received. Inspection and sampling the contents of incoming containers. Label container with unique identification number, Verifying the sampling the contents of incoming containers for fingerprint analysis according to prescribed policies and procedures and directing them to the appropriate processing or storage area. Send samples to the laboratory to be tested, as warranted.
- Discrepancies. Identify and complete a discrepancy report for non-conforming materials received. Assist in the resolution of discrepancies as it relates to the shipping documents and associated paperwork, material received and other inconsistencies that arise that may require action for resolution.
- Paperwork/Documentation. Responsible for reviewing and verifying the shipping documents and printing and completing the Container Inspection Form.
- Inventory. Maintain inventory levels for all supplies and conduct various inventory management activities to maintain a high level of accuracy for the site.
- Good Housekeeping. Maintain good housekeeping of the warehouse areas to ensure a clean and organized spaces at all times.
- Inspections. Performs facility inspections, as assigned.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Comply with all compliance, regulatory and company policies and procedures. Complete all required training and



## Job Description

follow all policies and procedures established by the company.

### Non-Essential Duties and Responsibilities

- Operate and maintain all equipment in a professional manner to ensure optimum efficiency and effectiveness.
- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting material handling and storage activities, waste sampling, lab pack packaging and repacking, bulking, consolidation, and treatment (fuel blending) activities.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Occasionally	<b>Bending:</b>	Continuously
<b>Standing:</b>	Continuously	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Continuously	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Continuously	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Frequently		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Frequently	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Frequently	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Frequently
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally



## Job Description

Apron:	Frequently		
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### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Operator - Solid Waste	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Operations Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position provides primarily solid waste storage and processing activities while adhering to state and federal environmental, health and safety regulations.

### Education/Experience

- High School diploma or General Education Development (GED) required
- Associate or Bachelor's degree in Chemistry or related science discipline preferred

### Certification/Licenses

- 40-hour Hazwoper Certification
- Valid CDL Class B Driver's License with Hazmat and Tanker Endorsement preferred

### Knowledge, Skills and Ability

- Strong team player
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to operate a forklift
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Solid Waste. Perform operations associated with solid waste processing including bulking, consolidation, and depack and repackaging. Perform operations associated with solid waste storage. Maintain approved inventory levels for solid waste.
- Universal Waste Handling. Perform operations associated with universal waste handling management. Maintain approved inventory levels for universal waste.
- Used Oil Processing. Perform operations associated with used oil processing management. Maintain approved inventory levels for used oil.
- Material Handling. Assist in the loading/unloading of waste and materials utilizing appropriate equipment (drum dollies, forklift, etc.) to ensure transfer of waste in a safe and timely manner.
- Good Housekeeping. Maintain good housekeeping of the warehouse areas to ensure a clean and organized spaces at all times.
- Inspections. Performs facility inspections, as assigned.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Comply with all compliance, regulatory and company policies and procedures. Complete all required training and follow all policies and procedures established by the company.

### Non-Essential Duties and Responsibilities

- Operate and maintain all equipment in a professional manner to ensure optimum efficiency and effectiveness.
- Other duties as assigned.

### Work Environment



## Job Description

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting material handling and storage activities, waste sampling, lab pack packaging and repacking, bulking, consolidation, and treatment (fuel blending) activities.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Occasionally	<b>Bending:</b>	Continuously
<b>Standing:</b>	Continuously	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Continuously	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Continuously	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Frequently		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Frequently	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Frequently	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Frequently
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron:</b>	Frequently		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_





## Job Description

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Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Operator - Hazardous Waste	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Operations Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position provides primarily hazardous waste storage and processing activities while adhering to state and federal environmental, health and safety regulations.

### Education/Experience

- High School diploma or General Education Development (GED) required
- Associate or Bachelor's degree in Chemistry or related science discipline preferred

### Certification/Licenses

- 40-hour Hazwoper Certification
- Valid CDL Class B Driver's License with Hazmat and Tanker Endorsement preferred

### Knowledge, Skills and Ability

- Strong team player
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to operate a forklift
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Hazardous Waste. Perform operations associated with hazardous waste processing including bulking, consolidation, depack and repackaging and fuel blending. Perform operations associated with hazardous waste storage. Maintain approved inventory levels for hazardous waste.
- Solvent Continue Use. Perform operations associated with solvent continue used material management. Maintain approved inventory levels for solvent continue use material.
- Material Handling. Assist in the loading/unloading of hazardous waste and solvent continue use materials utilizing appropriate equipment (drum dollies, forklift, etc.) to ensure transfer of waste in a safe and timely manner.
- Good Housekeeping. Maintain good housekeeping of the warehouse areas to ensure a clean and organized spaces at all times.
- Inspections. Performs facility inspections, as assigned.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Comply with all compliance, regulatory and company policies and procedures. Complete all required training and follow all policies and procedures established by the company.

### Non-Essential Duties and Responsibilities

- Operate and maintain all equipment in a professional manner to ensure optimum efficiency and effectiveness.
- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential



## Job Description

functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting material handling and storage activities, waste sampling, lab pack packaging and repacking, bulking, consolidation, and treatment (fuel blending) activities.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Occasionally	<b>Bending:</b>	Continuously
<b>Standing:</b>	Continuously	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Continuously	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Continuously	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Frequently		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Frequently	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Frequently	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Frequently
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron:</b>	Frequently		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_



## **Job Description**

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**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Operator - Labpacker	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Technical Services Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

This position provides specialized hazard determination and consolidation of chemical waste materials. Responsibilities include testing, consolidation, packaging, labeling, loading/unloading, coordinating transportation, and sampling/profiling materials while adhering to state and federal environmental, health and safety regulations.

### Education/Experience

- High School diploma or General Education Development (GED) required
- Associate or bachelor's degree in chemistry or related science discipline preferred

### Certification/Licenses

- 40-hour Hazwoper Certification
- Valid CDL Class B Driver's License with Hazmat and Tanker Endorsement

### Knowledge, Skills and Ability

- Strong team player
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to operate a forklift
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Customer Labpack Project. Conduct on-site classification, identification, packaging and labeling of lab pack projects at client sites. Create and complete shipping documentation and load and transport lab packs. Conduct fingerprinting screening, as required, according to prescribed policies and procedures.
- Depack. Manually open, unpack, and consolidate, bulk, or repack containers of hazardous waste or designate for fuel blending for compatibility and efficiencies of outbound shipments.
- Material Handling. Assist in the loading/unloading of hazardous waste materials utilizing appropriate equipment (drum dollies, forklift, etc.) to ensure transfer of waste in a safe and timely manner.
- Good Housekeeping. Maintain good housekeeping of the warehouse areas to ensure a clean and organized spaces at all times.
- Inspections. Performs facility inspections, as assigned.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Comply with all compliance, regulatory and company policies and procedures. Complete all required training and follow all policies and procedures established by the company.

### Non-Essential Duties and Responsibilities

- Operate and maintain all equipment in a professional manner to ensure optimum efficiency and effectiveness.
- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an



## Job Description

employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting material handling and storage activities, waste sampling, lab pack packaging and repacking, bulking, consolidation, and treatment (fuel blending) activities.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Occasionally	<b>Bending:</b>	Continuously
<b>Standing:</b>	Continuously	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Continuously	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Continuously	<b>51 to 100 lbs.:</b>	Occasionally
<b>11 to 20 lbs.:</b>	Continuously	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	Frequently		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Frequently	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Frequently	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	Continuously	<b>Gloves:</b>	Frequently
<b>Hard Hat:</b>	Occasionally	<b>Clothing/Coveralls/Tyvek:</b>	Continuously
<b>Hearing Protection:</b>	Occasionally	<b>Respirator- Dust Mask:</b>	Frequently
<b>Steel-Toe Boots/Shoes:</b>	Continuously	<b>Respirator - Air-Purifying:</b>	Occasionally
<b>Apron:</b>	Frequently		

### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_



## Job Description

Date: \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Transportation Coordinator	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Operation Manager	<b>Approval Date:</b>	8/6/2021

### Job Summary:

The primary responsibility for this position is to ensure compliance, accurate, timely and efficient utilization of transportation (both inbound and outbound) to support the core business operations.

### Education/Experience

- Bachelor of Science in Operations, Chemistry or related discipline required
- 4 or more years' experience in the hazardous waste industry or related work experience preferred

### Certification/Licenses

- None

### Knowledge, Skills and Ability

- Strong team member
- Strong customer service orientated
- Strong problem-solving skills
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Computer proficiency

### Essential Duties and Responsibilities

- Scheduling. Schedule received sales orders for pickup from clients based upon specifications provided by Customer Service. Assist in creating a customer service culture that assures the company is responsive and sensitive to the needs and flexibility of our customers. Map and optimize distribution footprint to meet operational and client service requirements, while achieving cost and revenue goals with a focus on continuous process improvement. Maintain relationships with receiving facilities. Assist to identify and capture opportunities to reduce cost, automate and create best practice processes, and improve client service. Collaborate with all functions of the business.
- Dispatch. Make necessary arrangements for the appropriate transportation to be employed for each scheduled pickup while being cost-effective and efficient for routes and maximum load capacity. Add, cancel or modify inbound client's daily loads as needed. Communicate with clients and drivers/carriers on transportation changes. Generate and supply all necessary paperwork and labels to accompany shipments. Be a resource and point of contact for all drivers to assist to resolve any problems, concerns or questions that may arise.
- Outbound Transportation. Develop the daily shipping schedules for out bound materials using short-term projections while collaborating with cross-functional co-workers to optimal trailer utilization. Arrange client supply/return loads as needed. Generate and supply all necessary paperwork and labels to accompany shipments.
- Shipping Documents and Associated Paperwork. Print shipping documents and associated paperwork generated for clients and outbound shipments from the business software system.
- Logistic Companies. Determine logistic company utilization based upon freight pricing, qualifications, load pay and profit margin using market conditions and organizational goals. Maintain continued price negotiation. Create and maintain a repository of documents to include, but not limited to, rate quotes, permits, and certificate of insurance.
- Compliance. Maintain current knowledge of compliance and regulatory standards for drivers and





## Job Description

vehicles. Support internal personnel by providing technical expertise and industry best practice knowledge and resources. Comply and enforce all compliance, regulatory and company policies and procedures.

### Non-Essential Duties and Responsibilities

- Perform other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting sampling and testing activities for received material or repacking, bulking, consolidation and treatment (fuel blending) operations.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Frequently	<b>Bending:</b>	Occasionally
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Occasionally
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally

Lifting			
<b>Up to 10 lbs.:</b>	Occasionally	<b>51 to 100 lbs.:</b>	N/A
<b>11 to 20 lbs.:</b>	Occasionally	<b>Over 100 lbs.:</b>	N/A
<b>21 to 50 lbs.:</b>	N/A		

Weather Conditions			
<b>Indoors:</b>	Continuously	<b>Snow/Ice:</b>	Occasionally
<b>Outdoors:</b>	Occasionally	<b>Wind:</b>	Occasionally
<b>Sun:</b>	Occasionally	<b>Temperature Range:</b>	-20F to 1110F
<b>Rain:</b>	Occasionally		

Personal Protective Equipment			
<b>Safety Glasses:</b>	N/A	<b>Gloves:</b>	N/A
<b>Hard Hat:</b>	N/A	<b>Clothing/Coveralls/Tyvek:</b>	N/A
<b>Hearing Protection:</b>	N/A	<b>Respirator- Dust Mask:</b>	N/A
<b>Steel-Toe Boots/Shoes:</b>	N/A	<b>Respirator - Air-Purifying:</b>	N/A



## Job Description

Apron/Lab Coat:	N/A		
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### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_



## Job Description

<b>Job Title:</b>	Transportation Driver	<b>FLSA Status:</b>	Non-Exempt
<b>Department:</b>	Operations	<b>Type:</b>	Full-Time
<b>Manager:</b>	Operations Manager	<b>Approval Date:</b>	6/23/2022

### Job Summary:

The primary responsibility for this position is for the safe transportation of materials to and from client's or the site's facility in compliance with all applicable Federal, State and local regulations.

### Education/Experience

- High School diploma or General Education Development (GED) required
- A minimum of 2-years Class A or B driving experience with endorsements preferred
- Must have and maintain an acceptable motor vehicle driving records to the FMCA regulations

### Certification/Licenses

- 40-hour Hazwoper Certification
- Valid CDL Class A or B Driver's License with Hazmat and Tanker Endorsement preferred

### Knowledge, Skills and Ability

- Strong team player
- Excellent interpersonal and communication skills
- Ability to organize and manage multiple deadlines
- Ability to operate a forklift
- Ability to follow through on assignments and problem solve
- Computer proficiency

### Essential Duties and Responsibilities

- Safety and Security. Safety and security procedures are imperative and must be observed at all times.
- Transport materials as directed by the Scheduling Department via tanker truck for clients, affiliated facilities, or the organization.
- Read maps, and follow written and verbal geographic directions. Assist to create and maintain efficient collection routes.
- Conducting loading and off-loading procedures for bulk materials, as needed, at clients, affiliated facilities, or the organization.
- Completion and/or review of manifest, bill-of-ladings or other shipping paperwork associated with the load for accuracy prior to transportation, as well as, signing all applicable paperwork as the designated transporter, as required. Verify the contents of the load against shipping documents for accuracy.
- Forward all paperwork to the office for processing in a timely manner with clear and accurate information.
- Maintain good client relations with point of contact at each site. Demonstrates professionalism at all times and most importantly during client interactions.
- Maintain records for vehicle logs, pre and post vehicle inspections, and records of cargo. Forward all logs and inspections to the office for recordkeeping.
- Monitor truck performance for preventative maintenance needs. Report mechanical problems



## Job Description

encountered with the vehicle.

- Report delays, accidents, or other traffic and transportation situations to the organization, using telephone or mobile two-way radio when the vehicle is not being operated.
- Conduct transportation operations in accordance to FMCA, DOT and safety policies and procedures established by the organization. Obey all traffic laws and treat other drivers with courtesy.
- Maintain a driving record that comply with FMCA requirements and a working knowledge of DOT regulations. Report any violations immediately.
- Support effective communication with all departments where responsibilities overlap to ensure success of the organization.
- Provide back-up support to other drivers within the organization.
- Good Housekeeping. Maintain good housekeeping of tractor, trailer, equipment and yard area.
- Inspections. Performs facility vehicle inspections, as assigned.
- Compliance. Maintain current knowledge of compliance and regulatory standards. Comply with all compliance, regulatory and company policies and procedures. Complete all required training and follow all policies and procedures established by the company.

### Non-Essential Duties and Responsibilities

- Operate and maintain all equipment in a professional manner to ensure optimum efficiency and effectiveness.
- Other duties as assigned.

### Work Environment

The physical demands and work environment described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this position, the employee will frequently handle and be exposed to hazardous waste, hazardous materials and other chemicals while conducting transportation activities.

### Physical Requirements

The physical demands described here are representative of those that an employee encounters while successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**Frequency Vales:** N/A = Not Applicable Occasionally = 1-35% Frequently = 36-66% Continuously = 67-100%

General			
<b>Sitting:</b>	Continuously	<b>Bending:</b>	Frequently
<b>Standing:</b>	Frequently	<b>Noise Level:</b>	Minimal
<b>Walking:</b>	Frequently	<b>Twisting:</b>	Frequently
<b>Fine Finger Movements:</b>	Frequently	<b>Climb/Work Aloft:</b>	Occasionally
<b>Eye-Hand Coordination:</b>	Continuously	<b>Reach Above Shoulders:</b>	Occasionally



## Job Description

Lifting			
Up to 10 lbs.:	Continuously	51 to 100 lbs.:	Occasionally
11 to 20 lbs.:	Continuously	Over 100 lbs.:	N/A
21 to 50 lbs.:	Frequently		

Weather Conditions			
Indoors:	Frequently	Snow/Ice:	Occasionally
Outdoors:	Frequently	Wind:	Occasionally
Sun:	Frequently	Temperature Range:	-20F to 1110F
Rain:	Occasionally		

Personal Protective Equipment			
Safety Glasses:	Frequently	Gloves:	Frequently
Hard Hat:	Occasionally	Clothing/Coveralls/Tyvek:	Continuously
Hearing Protection:	Occasionally	Respirator- Dust Mask:	Occasionally
Steel-Toe Boots/Shoes:	Continuously	Respirator - Air-Purifying:	N/A
Apron:	Occasionally		


### Employee Acknowledgement

I have reviewed this document and understand the responsibilities of this position.

**Name (Printed):** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Document No.: <b>OPS-SOP-032</b>	Revision Date: <b>6/23/2022</b>	Revision No.: <b>005</b>	
Document Title: <b>TRAINING AND COMPETENCE</b>			
Certified By: <b>CEO</b>		Certified Date: <b>6/23/2022</b>	

**APPENDIX C  
TRAINING MATRIX**

The ESRR Employee Training Tracker established the specific training topics required for each job position within the organization and tracks the training completed by the actual individual employee.



Training Matrix -  
Final.pdf



## Enviro-Safe Resource Recovery - Germantown

### Training Matrix

Last Updated: 6/23/2022

TRAINING COURSES		TRAINING INFORMATION			MANAGEMENT	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	CEO	President
<b>DEPARTMENT OF TRANSPORTATION (DOT)</b>						
DOT: Driver - DMV Certification of Licenses	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required
DOT: Driver - DMV Background Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required
DOT: Driver - FMSCA Clearinghouse Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required
DOT: Driver - Medical Exam and Certification	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required
DOT: Driver - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required
DOT: Supervisor - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Required	Not Required
DOT: Driver - Accident Procedures (43861)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Entry Level Operator (43001)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Hours of Service Basis (61324)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Injury Prevention for CMV Drivers (48454)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Injury Prevention Around Tankers (49838)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Manage Speed and Space (55757)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Straight Truck Operation (51254)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Tank Truck Operation (24456 & 24455)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: Driver - Vehicle Inspection Tractor Trailer (51916)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required
DOT: HM General Awareness and Familiarization	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Hazard Classification Table	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Packaging	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Marking and Labeling	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Placarding	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Shipping Papers	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Loading/Unloading (Non-Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Loading/Unloading (Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Chemical Segregation	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Safety Training (51916)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Special Permits	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - ERG Book	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Incident Reporting	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required
DOT: HM Function Specific - Material-of-Trade	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Not Required	Required
DOT: HM Security Awareness	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required
DOT: HM Security In-Depth	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required
<b>FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)</b>						
FEMA: Active Shooter (IS-00907)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required
FEMA: Basic Workplace Security Awareness (IS-00906)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required
FEMA: Theft and Diversion (IS-00916)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			MANAGEMENT	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	CEO	President
<b>OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)</b>						
OSHA: 10-Hour General Industry	N/A	Initial	N/A	Various	Required	Not Required
OSHA: Bloodborne Pathogen - Training	OPS-EHS-WI-007	Initial	Annually	CEO/Operations	Required	Not Required
OSHA: Bloodborne Pathogen - HBV Vaccination	OPS-EHS-WI-007	Initial	N/A	CEO/Operations	Optional	Not Required
OSHA: Confined Spaces - General Awareness	OPS-EHS-WI-012	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Control of Hazardous Energy - Affected	OPS-EHS-WI-009	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Compressed Gas Safety	OPS-EHS-WI-020	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Contractor Safety	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Required
OSHA: Electrical Safety Related Work Practices	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Emergency Management Plan	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required
OSHA: Emergency Management Plan - Critical Roles, Operations and Shut-Down	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required
OSHA: Employee Access to Medical Records	OPS-EHS-WI-013	Initial	N/A	CEO/Operations	Required	Required
OSHA: Fire Prevention	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required
OSHA: Fire Extinguisher	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required
OSHA: First Aid and CPR	OPS-EHS-WI-008	Initial	Every 2-Years	Safety Matters	Required	Not Required
OSHA: Flammable and Combustible Liquids	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Hazard Chemicals in Laboratory	OPS-EHS-WI-006	Initial	N/A	CEO/Operations	Not Required	Not Required
OSHA: Hazard Communication	OPS-EHS-WI-010	Initial	N/A	CEO/Operations	Required	Required
OSHA: Hazwoper First Responder (Spill)	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required
OSHA: Hazwoper 40-Hour	OPS-EHS-WI-005	Initial	N/A	Lindenberg Compliance	Required	Required
OSHA: Hazwoper 24-Hour	OPS-EHS-WI-005	Initial	Annually	Lindenberg Compliance	Required	Not Required
OSHA: Hazwoper 8-Hour	OPS-EHS-WI-005	N/A	Annually	Lindenberg Compliance	Required	Required
OSHA: Hot Work - General Awareness	OPS-EHS-WI-019	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Incident Reporting and Investigation	OPS-EHS-WI-004	Initial	N/A	CEO/Operations	Required	Required
OSHA: Ladder Safety	OPS-EHS-WI-023	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Personal Protective Equipment	OPS-EHS-WI-001	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Powered Industrial Truck - Forklift	OPS-EHS-WI-002	Initial	Every 3-Years	Wisconsin Lift Truck	Not Required	Not Required
OSHA: Powered Industrial Truck - Pallet Jack	OPS-EHS-WI-002	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - General Awareness	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - Hazard Analysis	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - Information	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - Operator Responsibility	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Respirator - Air-Purifying Fit Testing	OPS-EHS-WI-017	Initial	Annually	Concentra Medical	Not Required	Not Required
OSHA: Respirator - Air-Purifying Medical Release	OPS-EHS-WI-017	Initial	Expiration Date	Concentra Medical	Not Required	Not Required
OSHA: Respirator - Air-Purifying Training	OPS-EHS-WI-017	Initial	Every 2-Year	CEO/Operations	Not Required	Not Required
OSHA: Respirator - Dust Mask	OPS-EHS-WI-017	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Safety Orientation - Office	N/A	Initial	N/A	CEO/Operations	Not Required	Required
OSHA: Safety Orientation - Technical and Operations	N/A	Initial	N/A	CEO/Operations	Required	Required
OSHA: Static Electricity (Grounding and Bonding)	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Visitor Safety	OPS-EHS-WI-025	Initial	N/A	CEO/Operations	Required	Required



TRAINING COURSES		TRAINING INFORMATION			MANAGEMENT	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	CEO	President
<b>Wisconsin Department of Natural Resources (WDNR) and EPA</b>						
WDNR: RCRA Hazardous Waste - McCoy 5-Day Course	OPS-EHS-WI-018	Initial	N/A	McCoy	Required	Required
WDNR: Solid Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Solid Waste Function Specific - Bulking, Consolidation and Depack/Repack	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required
WDNR: Used Oil Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Electronic Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Universal Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Hazardous Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Generator Classes	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Waste Characterization and Determination (Profiling)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Sampling, Analytical Testing and Interpretation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Waste Analysis Plan	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Waste Handling Limitations	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Manifest, Recordkeeping and Reporting	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Land Ban	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Container Management (Handling and Storage)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Bulking Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Consolidation Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Depack/Repack Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Aerosol Puncturing Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Fuel Blending Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Acid and Base Neutralization Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Chemical Segregation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Ignitable, Reactive and Incompatibles	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Air Emissions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Exclusions and Exemptions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Preparedness, Prevention and Contingency Planning	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Inspections	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Transportation 10-Day Transfer Facility	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR - RCRA Function Specific - Waste Minimization and Pollution Prevention	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: Storm Water Management	OPS-EHS-WI-026	Initial	Annually	CEO/Operations	Required	Not Required
EPA: Spill Prevention, Control and Countermeasure	OPS-EHS-WI-016	Initial	Annually	CEO/Operations	Required	Required
<b>Standard Operating Procedures (SOPs)</b>						
Administrative - Human Resources - SOPs	ADM-HR-SOP-XXX	Initially	N/A	Department Manager	Required	Required
Administrative - Information Technology - SOPs	ADM-IT-SOP-XXX	Initially	N/A	Department Manager	Required	Required
Sales and Marketing - Sales - SOPs	SAM-SAL-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Required
Sales and Marketing - Marketing - SOPs	SAM-MKT-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Required
Sales and Marketing - Customer Service - SOPs	SAM-CST-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Required
Sales and Marketing - Finance - SOPs	SAM-FIN-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Required
Technical Services - Regulatory - SOPs	TSS-REG-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required
Technical Services - Approvals - SOPs	TSS-APP-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			MANAGEMENT	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	CEO	President
Technical Services - Laboratory - SOPs	TSS-LAB-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required
Operations - Scheduling - SOPs	OPS-SCH-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Receiving - SOPs	OPS-REC-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Solid Waste Management - SOPs	OPS-NH-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - RCRA Hazardous Waste Management - SOPs	OPS-HAZ-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Used Oil Management - SOPs	OPS-OIL-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Universal Waste Small Quantity Handler Management - SOPs	OPS-UNV-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Solvent Continue Use Management - SOPs	OPS-SCU-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Transportation - SOPs	OPS-TRN-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Total Preventative Maintenance - SOPs	OPS-TPM-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
Operations - Environmental, Health and Safety - SOPs	OPS-EHS-SOP-XXX	Initially	N/A	Operations Manager	Required	Not Required
<b>On-The-Job (OTJ)</b>						
Emergency Management - Evacuation Routes and Meeting Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Alarm System Operation	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Location and Operations of Two-Way Walkie Talkies	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Spill Kit Locations and Items	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Fire Extinguishers and Fire Hoses Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Emergency Eyewash and Shower Location and Use	OPS-EHS-WI-010	Initially	N/A	Manager	Required	Required
Bloodborne Pathogens - Bloodborne Pathogen Clean-Up Kit Location	OPS-EHS-WI-007	Initially	N/A	Manager	Required	Required
Medical Management - First Aid Kit Location	OPS-EHS-WI-008	Initially	N/A	Manager	Required	Required
Incident Reporting and Investigation - Report Forms and Submittal	OPS-EHS-WI-004	Initially	N/A	Manager	Required	Required
Personal Protective Equipment - PPE Cabinet and Items	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required
Personal Protective Equipment - Safety Shoes Reimbursement	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required
Respiratory Protection - Issuance of Respirator, Cartridges and Storage Container	OPS-EHS-WI-017	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Daily Inspection Sheets	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Battery Water Addition	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Proper Pallet Jack Usage	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Charging	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Drum Dumper Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - 2 Drum Handler Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required
Hazardous Chemicals in Laboratory - Proper Chemical Storage	OPS-EHS-WI-009	Initially	N/A	Manager	Required	Not Required
Static Electricity - Grounding and Bonding Equipment and Usage	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Not Required
Secondary Containment - Sampling of Rainwater and Documentation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Not Required
Secondary Containment - Manhole Valves Close/Open Operation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Not Required
Bulk Tanker - Proper Hose Hook-Up, Connections, Fittings	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Loading and Unloading Inspection	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Use of Strainer	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required
Bulk Tanker - Vacuum Operation	TBD	Initially	N/A	Manager	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			MANAGEMENT	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	CEO	President
Straight Trucks and Semi-Trailer - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required
Straight Trucks and Semi-Trailers - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required
Straight Trucks and Semi-Trailer - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required
Straight Trucks and Semi-Trailers - Loading Dock Operation	TBD	Initially	N/A	Manager	Not Required	Not Required
Proper Container Labeling - Internal Bar Code Label	TBD	Initially	N/A	Manager	Required	Required
Storage - Segregation of Waste and Use of Containment Pallets	TBD	Initially	N/A	Manager	Required	Not Required
Storage - Leaking Container Overpack Container Use	TBD	Initially	N/A	Manager	Required	Not Required
Storage - Handling Container Under Pressure	TBD	Initially	N/A	Manager	Required	Not Required
AGST - Pumping from RM 126 into Tanks	TBD	Initially	N/A	Manager	Not Required	Not Required
AGST - Pumping from RM 126 into Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required
AGST - Pumping from Tanks to a Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required
AGST - Pumping from Tanker Vehicle to a Tank	TBD	Initially	N/A	Manager	Not Required	Not Required
RM 125 and RM 126 - No Cell Phones	TBD	Initially	N/A	Manager	Not Required	Not Required
RM 125 and RM 126 - Use of Non-Sparking Tools Only	TBD	Initially	N/A	Manager	Not Required	Not Required
RM 125 and RM 126 - No Portable Electrical Equipment (Fans, Tools, Etc.) Allowed	TBD	Initially	N/A	Manager	Not Required	Not Required
Equipment - Drum Cart Usage	N/A	Initially	N/A	Manager	Not Required	Not Required
Equipment - Floor Scrubber Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required
Equipment - Pressure Washer Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required
Building - Security System On/Off	N/A	Initially	N/A	Manager	Required	Required
Building - Badge Card Access	N/A	Initially	N/A	Manager	Required	Required
Building - Housekeeping	N/A	Initially	N/A	Manager	Required	Required
Building - No Smoking on the Property	N/A	Initially	N/A	Manager	Required	Required
Waste Generation - Empty Container Recycling Trailer	TBD	Initially	N/A	Manager	Required	Not Required
Waste Generation - Satellite Accumulation Containers	WI-EHS-018	Initially	N/A	Manager	Required	Not Required





**Enviro-Safe Resource Recovery - Germantown**  
**Training Matrix** Last Updated: 6/23/2022

TRAINING COURSES		TRAINING INFORMATION			SALES AND MARKETING			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Sales Manager	Business Service Manager	Customer Service Specialist	Finance Specialist
<b>DEPARTMENT OF TRANSPORTATION (DOT)</b>								
DOT: Driver - DMV Certification of Licenses	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - DMV Background Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - FMSCA Clearinghouse Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Medical Exam and Certification	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Supervisor - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Accident Procedures (43861)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Entry Level Operator (43001)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Hours of Service Basis (61324)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention for CMV Drivers (48454)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention Around Tankers (49838)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Manage Speed and Space (55757)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Straight Truck Operation (51254)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Tank Truck Operation (24456 & 24455)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Vehicle Inspection Tractor Trailer (51916)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: HM General Awareness and Familiarization	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Hazard Classification Table	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Packaging	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Marking and Labeling	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Placarding	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Shipping Papers	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Loading/Unloading (Non-Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Loading/Unloading (Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Chemical Segregation	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Safety Training (51916)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Special Permits	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - ERG Book	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Incident Reporting	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Material-of-Trade	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required	Not Required	Not Required
DOT: HM Security Awareness	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required
DOT: HM Security In-Depth	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
<b>FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)</b>								
FEMA: Active Shooter (IS-00907)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required	Not Required	Not Required
FEMA: Basic Workplace Security Awareness (IS-00906)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required	Not Required	Not Required
FEMA: Theft and Diversion (IS-00916)	N/A	Initial	N/A	FEMA (Online)	Not Required	Not Required	Not Required	Not Required
<b>OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)</b>								
OSHA: 10-Hour General Industry	N/A	Initial	N/A	Various	Not Required	Not Required	Not Required	Not Required
OSHA: Bloodborne Pathogen - Training	OPS-EHS-WI-007	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Bloodborne Pathogen - HBV Vaccination	OPS-EHS-WI-007	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Confined Spaces - General Awareness	OPS-EHS-WI-012	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Control of Hazardous Energy - Affected	OPS-EHS-WI-009	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Compressed Gas Safety	OPS-EHS-WI-020	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			SALES AND MARKETING			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Sales Manager	Business Service Manager	Customer Service Specialist	Finance Specialist
OSHA: Contractor Safety	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Electrical Safety Related Work Practices	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Emergency Management Plan	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required
OSHA: Emergency Management Plan - Critical Roles, Operations and Shut-Down	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Employee Access to Medical Records	OPS-EHS-WI-013	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Fire Prevention	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Fire Extinguisher	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: First Aid and CPR	OPS-EHS-WI-008	Initial	Every 2-Years	Safety Matters	Not Required	Not Required	Not Required	Not Required
OSHA: Flammable and Combustible Liquids	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Hazard Chemicals in Laboratory	OPS-EHS-WI-006	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Hazard Communication	OPS-EHS-WI-010	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Hazwoper First Responder (Spill)	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Not Required	Required	Not Required	Not Required
OSHA: Hazwoper 40-Hour	OPS-EHS-WI-005	Initial	N/A	Lindenberg Compliance	Not Required	Not Required	Not Required	Not Required
OSHA: Hazwoper 24-Hour	OPS-EHS-WI-005	Initial	Annually	Lindenberg Compliance	Not Required	Not Required	Not Required	Not Required
OSHA: Hazwoper 8-Hour	OPS-EHS-WI-005	N/A	Annually	Lindenberg Compliance	Not Required	Not Required	Not Required	Not Required
OSHA: Hot Work - General Awareness	OPS-EHS-WI-019	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Incident Reporting and Investigation	OPS-EHS-WI-004	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Ladder Safety	OPS-EHS-WI-023	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Personal Protective Equipment	OPS-EHS-WI-001	Initial	N/A	CEO/Operations	Not Required	Required	Not Required	Not Required
OSHA: Powered Industrial Truck - Forklift	OPS-EHS-WI-002	Initial	Every 3-Years	Wisconsin Lift Truck	Not Required	Not Required	Not Required	Not Required
OSHA: Powered Industrial Truck - Pallet Jack	OPS-EHS-WI-002	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - General Awareness	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Hazard Analysis	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Information	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Operator Responsibility	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Respirator - Air-Purifying Fit Testing	OPS-EHS-WI-017	Initial	Annually	Concentra Medical	Not Required	Not Required	Not Required	Not Required
OSHA: Respirator - Air-Purifying Medical Release	OPS-EHS-WI-017	Initial	Expiration Date	Concentra Medical	Not Required	Not Required	Not Required	Not Required
OSHA: Respirator - Air-Purifying Training	OPS-EHS-WI-017	Initial	Every 2-Year	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Respirator - Dust Mask	OPS-EHS-WI-017	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Safety Orientation - Office	N/A	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Safety Orientation - Technical and Operations	N/A	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Static Electricity (Grounding and Bonding)	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Visitor Safety	OPS-EHS-WI-025	Initial	N/A	CEO/Operations	Required	Required	Required	Required

### Wisconsin Department of Natural Resources (WDNR) and EPA

WDNR: RCRA Hazardous Waste - McCoy 5-Day Course	OPS-EHS-WI-018	Initial	N/A	McCoy	Required	Not Required	Not Required	Not Required
WDNR: Solid Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Solid Waste Function Specific - Bulking, Consolidation and Depack/Repack	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: Used Oil Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Electronic Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Universal Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Hazardous Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Generator Classes	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Characterization and Determination (Profiling)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Sampling, Analytical Testing and Interpretation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Not Required
WDNR: RCRA Function Specific - Waste Analysis Plan	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Waste Handling Limitations	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Not Required
WDNR: RCRA Function Specific - Manifest, Recordkeeping and Reporting	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Land Ban	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Container Management (Handling and Storage)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			SALES AND MARKETING			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Sales Manager	Business Service Manager	Customer Service Specialist	Finance Specialist
WDNR: RCRA Function Specific - Bulking Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Consolidation Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Depack/Repack Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Aerosol Puncturing Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Fuel Blending Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Acid and Base Neutralization Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Chemical Segregation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Ignitable, Reactive and Incompatibles	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Air Emissions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Exclusions and Exemptions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Preparedness, Prevention and Contingency Planning	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Inspections	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Transportation 10-Day Transfer Facility	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR - RCRA Function Specific - Waste Minimization and Pollution Prevention	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required	Not Required	Not Required
WDNR: Storm Water Management	OPS-EHS-WI-026	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
EPA: Spill Prevention, Control and Countermeasure	OPS-EHS-WI-016	Initial	Annually	CEO/Operations	Required	Not Required	Not Required	Not Required
<b>Standard Operating Procedures (SOPs)</b>								
Administrative - Human Resources - SOPs	ADM-HR-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required
Administrative - Information Technology - SOPs	ADM-IT-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required
Sales and Marketing - Sales - SOPs	SAM-SAL-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Required	Required	Not Required	Not Required
Sales and Marketing - Marketing - SOPs	SAM-MKT-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Required	Required	Not Required	Not Required
Sales and Marketing - Customer Service - SOPs	SAM-CST-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Required	Not Required	Required	Not Required
Sales and Marketing - Finance - SOPs	SAM-FIN-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Required	Not Required	Not Required	Required
Technical Services - Regulatory - SOPs	TSS-REG-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required
Technical Services - Approvals - SOPs	TSS-APP-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required
Technical Services - Laboratory - SOPs	TSS-LAB-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required
Operations - Scheduling - SOPs	OPS-SCH-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Receiving - SOPs	OPS-REC-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Solid Waste Management - SOPs	OPS-NH-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - RCRA Hazardous Waste Management - SOPs	OPS-HAZ-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Used Oil Management - SOPs	OPS-OIL-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Universal Waste Small Quantity Handler Management - SOPs	OPS-UNV-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Solvent Continue Use Management - SOPs	OPS-SCU-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Transportation - SOPs	OPS-TRN-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Total Preventative Maintenance - SOPs	OPS-TPM-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Environmental, Health and Safety - SOPs	OPS-EHS-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
<b>On-The-Job (OTJ)</b>								
Emergency Management - Evacuation Routes and Meeting Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Alarm System Operation	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Location and Operations of Two-Way Walkie Talkies	OPS-EHS-WI-005	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Emergency Management - Spill Kit Locations and Items	OPS-EHS-WI-005	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Emergency Management - Fire Extinguishers and Fire Hoses Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Emergency Eyewash and Shower Location and Use	OPS-EHS-WI-010	Initially	N/A	Manager	Required	Required	Required	Required
Bloodborne Pathogens - Bloodborne Pathogen Clean-Up Kit Location	OPS-EHS-WI-007	Initially	N/A	Manager	Optional	Optional	Optional	Optional
Medical Management - First Aid Kit Location	OPS-EHS-WI-008	Initially	N/A	Manager	Required	Required	Required	Required
Incident Reporting and Investigation - Report Forms and Submittal	OPS-EHS-WI-004	Initially	N/A	Manager	Required	Required	Required	Required
Personal Protective Equipment - PPE Cabinet and Items	OPS-EHS-WI-001	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Personal Protective Equipment - Safety Shoes Reimbursement	OPS-EHS-WI-001	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			SALES AND MARKETING			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Sales Manager	Business Service Manager	Customer Service Specialist	Finance Specialist
Respiratory Protection - Issuance of Respirator, Cartridges and Storage Container	OPS-EHS-WI-017	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Daily Inspection Sheets	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Battery Water Addition	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Proper Pallet Jack Usage	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Charging	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Drum Dumper Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - 2 Drum Handler Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Hazardous Chemicals in Laboratory - Proper Chemical Storage	OPS-EHS-WI-009	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Static Electricity - Grounding and Bonding Equipment and Usage	OPS-EHS-WI-005	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Secondary Containment - Sampling of Rainwater and Documentation	OPS-EHS-WI-016	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Secondary Containment - Manhole Valves Close/Open Operation	OPS-EHS-WI-016	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Proper Hose Hook-Up, Connections, Fittings	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Loading and Unloading Inspection	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Use of Strainer	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Vacuum Operation	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailer - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailers - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailer - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailers - Loading Dock Operation	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Proper Container Labeling - Internal Bar Code Label	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Storage - Segregation of Waste and Use of Containment Pallets	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Storage - Leaking Container Overpack Container Use	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Storage - Handling Container Under Pressure	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from RM 126 into Tanks	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from RM 126 into Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from Tanks to a Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from Tanker Vehicle to a Tank	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - No Cell Phones	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - Use of Non-Sparking Tools Only	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - No Portable Electrical Equipment (Fans, Tools, Etc.) Allowed	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Drum Cart Usage	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Floor Scrubber Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Pressure Washer Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Building - Security System On/Off	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Building - Badge Card Access	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Building - Housekeeping	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Building - No Smoking on the Property	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Waste Generation - Empty Container Recycling Trailer	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Waste Generation - Satellite Accumulation Containers	WI-EHS-018	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required



**Enviro-Safe Resource Recovery - Germantown**

**Training Matrix**

Last Updated: 6/23/2022

TRAINING COURSES		TRAINING INFORMATION			TECHNICAL SERVICES			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Technical Services Manager	Approval Specialist	Laboratory Chemist	Laboratory Technician
<b>DEPARTMENT OF TRANSPORTATION (DOT)</b>								
DOT: Driver - DMV Certification of Licenses	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - DMV Background Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - FMSCA Clearinghouse Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Medical Exam and Certification	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Supervisor - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Accident Procedures (43861)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Entry Level Operator (43001)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Hours of Service Basis (61324)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention for CMV Drivers (48454)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention Around Tankers (49838)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Manage Speed and Space (55757)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Straight Truck Operation (51254)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Tank Truck Operation (24456 & 24455)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Vehicle Inspection Tractor Trailer (51916)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required
DOT: HM General Awareness and Familiarization	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Hazard Classification Table	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Packaging	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Marking and Labeling	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Placarding	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Shipping Papers	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Loading/Unloading (Non-Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Loading/Unloading (Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Chemical Segregation	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Safety Training (51916)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required
DOT: HM Function Specific - Special Permits	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - ERG Book	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Incident Reporting	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Not Required	Not Required	Not Required	Not Required
DOT: HM Function Specific - Material-of-Trade	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
DOT: HM Security Awareness	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required
DOT: HM Security In-Depth	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
<b>FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)</b>								
FEMA: Active Shooter (IS-00907)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required
FEMA: Basic Workplace Security Awareness (IS-00906)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required
FEMA: Theft and Diversion (IS-00916)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required
<b>OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)</b>								
OSHA: 10-Hour General Industry	N/A	Initial	N/A	Various	Required	Not Required	Not Required	Not Required
OSHA: Bloodborne Pathogen - Training	OPS-EHS-WI-007	Initial	Annually	CEO/Operations	Required	Optional	Optional	Optional
OSHA: Bloodborne Pathogen - HBV Vaccination	OPS-EHS-WI-007	Initial	N/A	CEO/Operations	Optional	Optional	Optional	Optional



TRAINING COURSES		TRAINING INFORMATION			TECHNICAL SERVICES			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Technical Services Manager	Approval Specialist	Laboratory Chemist	Laboratory Technician
OSHA: Confined Spaces - General Awareness	OPS-EHS-WI-012	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Control of Hazardous Energy - Affected	OPS-EHS-WI-009	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Compressed Gas Safety	OPS-EHS-WI-020	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Contractor Safety	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Required	Not Required	Not Required
OSHA: Electrical Safety Related Work Practices	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Emergency Management Plan	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required
OSHA: Emergency Management Plan - Critical Roles, Operations and Shut-Down	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Employee Access to Medical Records	OPS-EHS-WI-013	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Fire Prevention	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Fire Extinguisher	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required
OSHA: First Aid and CPR	OPS-EHS-WI-008	Initial	Every 2-Years	Safety Matters	Required	Required	Optional	Optional
OSHA: Flammable and Combustible Liquids	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Hazard Chemicals in Laboratory	OPS-EHS-WI-006	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Hazard Communication	OPS-EHS-WI-010	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Hazwoper First Responder (Spill)	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required
OSHA: Hazwoper 40-Hour	OPS-EHS-WI-005	Initial	N/A	Lindenberg Compliance	Required	Required	Required	Required
OSHA: Hazwoper 24-Hour	OPS-EHS-WI-005	Initial	Annually	Lindenberg Compliance	Not Required	Not Required	Not Required	Not Required
OSHA: Hazwoper 8-Hour	OPS-EHS-WI-005	N/A	Annually	Lindenberg Compliance	Required	Required	Required	Required
OSHA: Hot Work - General Awareness	OPS-EHS-WI-019	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Incident Reporting and Investigation	OPS-EHS-WI-004	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Ladder Safety	OPS-EHS-WI-023	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Personal Protective Equipment	OPS-EHS-WI-001	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Powered Industrial Truck - Forklift	OPS-EHS-WI-002	Initial	Every 3-Years	Wisconsin Lift Truck	Not Required	Not Required	Not Required	Not Required
OSHA: Powered Industrial Truck - Pallet Jack	OPS-EHS-WI-002	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - General Awareness	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Hazard Analysis	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Information	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Process Safety Management - Operator Responsibility	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required
OSHA: Respirator - Air-Purifying Fit Testing	OPS-EHS-WI-017	Initial	Annually	Concentra Medical	Required	Required	Required	Required
OSHA: Respirator - Air-Purifying Medical Release	OPS-EHS-WI-017	Initial	Expiration Date	Concentra Medical	Required	Required	Required	Required
OSHA: Respirator - Air-Purifying Training	OPS-EHS-WI-017	Initial	Every 2-Year	CEO/Operations	Required	Required	Required	Required
OSHA: Respirator - Dust Mask	OPS-EHS-WI-017	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Safety Orientation - Office	N/A	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required
OSHA: Safety Orientation - Technical and Operations	N/A	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Static Electricity (Grounding and Bonding)	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required
OSHA: Visitor Safety	OPS-EHS-WI-025	Initial	N/A	CEO/Operations	Required	Required	Not Required	Not Required

Wisconsin Department of Natural Resources (WDNR) and EPA								
WDNR: RCRA Hazardous Waste - McCoy 5-Day Course	OPS-EHS-WI-018	Initial	N/A	McCoy	Required	Required	Not Required	Not Required
WDNR: Solid Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Solid Waste Function Specific - Bulking, Consolidation and Depack/Repack	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Used Oil Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Electronic Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Universal Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Hazardous Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Generator Classes	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Characterization and Determination (Profiling)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required

TRAINING COURSES		TRAINING INFORMATION			TECHNICAL SERVICES			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Technical Services Manager	Approval Specialist	Laboratory Chemist	Laboratory Technician
WDNR: RCRA Function Specific - Sampling, Analytical Testing and Interpretation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Analysis Plan	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Handling Limitations	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Manifest, Recordkeeping and Reporting	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Land Ban	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Container Management (Handling and Storage)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Bulking Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Consolidation Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Depack/Repack Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Aerosol Puncturing Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Fuel Blending Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Acid and Base Neutralization Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Chemical Segregation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Ignitable, Reactive and Incompatibles	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Air Emissions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Exclusions and Exemptions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Preparedness, Prevention and Contingency Planning	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: RCRA Function Specific - Inspections	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Not Required	Not Required
WDNR: RCRA Function Specific - Transportation 10-Day Transfer Facility	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR - RCRA Function Specific - Waste Minimization and Pollution Prevention	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required
WDNR: Storm Water Management	OPS-EHS-WI-026	Initial	Annually	CEO/Operations	Required	Required	Required	Required
EPA: Spill Prevention, Control and Countermeasure	OPS-EHS-WI-016	Initial	Annually	CEO/Operations	Required	Required	Required	Required
<b>Standard Operating Procedures (SOPs)</b>								
Administrative - Human Resources - SOPs	ADM-HR-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required
Administrative - Information Technology - SOPs	ADM-IT-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required
Sales and Marketing - Sales - SOPs	SAM-SAL-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Marketing - SOPs	SAM-MKT-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Customer Service - SOPs	SAM-CST-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Finance - SOPs	SAM-FIN-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required
Technical Services - Regulatory - SOPs	TSS-REG-SOP-XXX	Initially	N/A	Technical Services Manager	Required	Required	Required	Required
Technical Services - Approvals - SOPs	TSS-APP-SOP-XXX	Initially	N/A	Technical Services Manager	Required	Required	Required	Required
Technical Services - Laboratory - SOPs	TSS-LAB-SOP-XXX	Initially	N/A	Technical Services Manager	Required	Required	Required	Required
Operations - Scheduling - SOPs	OPS-SCH-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Receiving - SOPs	OPS-REC-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Solid Waste Management - SOPs	OPS-NH-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - RCRA Hazardous Waste Management - SOPs	OPS-HAZ-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Used Oil Management - SOPs	OPS-OIL-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Universal Waste Small Quantity Handler Management - SOPs	OPS-UNV-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Solvent Continue Use Management - SOPs	OPS-SCU-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Transportation - SOPs	OPS-TRN-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Total Preventative Maintenance - SOPs	OPS-TPM-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
Operations - Environmental, Health and Safety - SOPs	OPS-EHS-SOP-XXX	Initially	N/A	Operations Manager	Not Required	Not Required	Not Required	Not Required
<b>On-The-Job (OTJ)</b>								
Emergency Management - Evacuation Routes and Meeting Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Alarm System Operation	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required

TRAINING COURSES		TRAINING INFORMATION			TECHNICAL SERVICES			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Technical Services Manager	Approval Specialist	Laboratory Chemist	Laboratory Technician
Emergency Management - Location and Operations of Two-Way Walkie Talkies	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Not Required	Not Required	Not Required
Emergency Management - Spill Kit Locations and Items	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Fire Extinguishers and Fire Hoses Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Emergency Management - Emergency Eyewash and Shower Location and Use	OPS-EHS-WI-010	Initially	N/A	Manager	Required	Required	Required	Required
Bloodborne Pathogens - Bloodborne Pathogen Clean-Up Kit Location	OPS-EHS-WI-007	Initially	N/A	Manager	Optional	Optional	Optional	Optional
Medical Management - First Aid Kit Location	OPS-EHS-WI-008	Initially	N/A	Manager	Required	Required	Required	Required
Incident Reporting and Investigation - Report Forms and Submittal	OPS-EHS-WI-004	Initially	N/A	Manager	Required	Required	Required	Required
Personal Protective Equipment - PPE Cabinet and Items	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required	Required	Required
Personal Protective Equipment - Safety Shoes Reimbursement	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required	Required	Required
Respiratory Protection - Issuance of Respirator, Cartridges and Storage Container	OPS-EHS-WI-017	Initially	N/A	Manager	Required	Required	Required	Required
Powered Industrial Trucks - Daily Inspection Sheets	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Battery Water Addition	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Proper Pallet Jack Usage	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Charging	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - Drum Dumper Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Powered Industrial Trucks - 2 Drum Handler Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Hazardous Chemicals in Laboratory - Proper Chemical Storage	OPS-EHS-WI-009	Initially	N/A	Manager	Required	Required	Required	Required
Static Electricity - Grounding and Bonding Equipment and Usage	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required
Secondary Containment - Sampling of Rainwater and Documentation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Required	Required	Required
Secondary Containment - Manhole Valves Close/Open Operation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Required	Required	Required
Bulk Tanker - Proper Hose Hook-Up, Connections, Fittings	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Loading and Unloading Inspection	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Use of Strainer	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Bulk Tanker - Vacuum Operation	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailer - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailers - Placarding	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailer - Wheels Chocked	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailers - Loading Dock Operation	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Proper Container Labeling - Internal Bar Code Label	TBD	Initially	N/A	Manager	Required	Required	Required	Required
Storage - Segregation of Waste and Use of Containment Pallets	TBD	Initially	N/A	Manager	Required	Required	Required	Required
Storage - Leaking Container Overpack Container Use	TBD	Initially	N/A	Manager	Required	Required	Required	Required
Storage - Handling Container Under Pressure	TBD	Initially	N/A	Manager	Required	Required	Required	Required
AGST - Pumping from RM 126 into Tanks	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from RM 126 into Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from Tanks to a Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from Tanker Vehicle to a Tank	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - No Cell Phones	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - Use of Non-Sparking Tools Only	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
RM 125 and RM 126 - No Portable Electrical Equipment (Fans, Tools, Etc.) Allowed	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Drum Cart Usage	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Floor Scrubber Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Equipment - Pressure Washer Proper Operation	N/A	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required
Building - Security System On/Off	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Building - Badge Card Access	N/A	Initially	N/A	Manager	Required	Required	Required	Required

TRAINING COURSES		TRAINING INFORMATION			TECHNICAL SERVICES			
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Technical Services Manager	Approval Specialist	Laboratory Chemist	Laboratory Technician
Building - Housekeeping	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Building - No Smoking on the Property	N/A	Initially	N/A	Manager	Required	Required	Required	Required
Waste Generation - Empty Container Recycling Trailer	TBD	Initially	N/A	Manager	Required	Required	Required	Required
Waste Generation - Satellite Accumulation Containers	WI-EHS-018	Initially	N/A	Manager	Required	Required	Required	Required



**Enviro-Safe Resource Recovery - Germantown**

**Training Matrix**

Last Updated: 6/23/2022

TRAINING COURSES		TRAINING INFORMATION			OPERATIONS				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Operation Manager	Operator Receiving	Operator Solid Waste	Operator Hazardous Waste	Operator Lab Packer
<b>DEPARTMENT OF TRANSPORTATION (DOT)</b>									
DOT: Driver - DMV Certification of Licenses	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - DMV Background Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - FMSCA Clearinghouse Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Medical Exam and Certification	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Supervisor - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Accident Procedures (43861)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Entry Level Operator (43001)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Hours of Service Basis (61324)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention for CMV Drivers (48454)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Injury Prevention Around Tankers (49838)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Manage Speed and Space (55757)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Straight Truck Operation (51254)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Tank Truck Operation (24456 & 24455)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: Driver - Vehicle Inspection Tractor Trailer (51916)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: HM General Awareness and Familiarization	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Hazard Classification Table	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Packaging	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Marking and Labeling	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Placarding	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Shipping Papers	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Loading/Unloading (Non-Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Loading/Unloading (Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Chemical Segregation	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Safety Training (51916)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Special Permits	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - ERG Book	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Incident Reporting	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required	Required	Required	Required
DOT: HM Function Specific - Material-of-Trade	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
DOT: HM Security Awareness	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
DOT: HM Security In-Depth	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Not Required	Not Required	Not Required	Not Required
<b>FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)</b>									
FEMA: Active Shooter (IS-00907)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required	Required
FEMA: Basic Workplace Security Awareness (IS-00906)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required	Required
FEMA: Theft and Diversion (IS-00916)	N/A	Initial	N/A	FEMA (Online)	Required	Required	Required	Required	Required
<b>OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)</b>									
OSHA: 10-Hour General Industry	N/A	Initial	N/A	Various	Required	Not Required	Not Required	Not Required	Not Required
OSHA: Bloodborne Pathogen - Training	OPS-EHS-WI-007	Initial	Annually	CEO/Operations	Required	Optional	Optional	Optional	Optional
OSHA: Bloodborne Pathogen - HBV Vaccination	OPS-EHS-WI-007	Initial	N/A	CEO/Operations	Optional	Optional	Optional	Optional	Optional
OSHA: Confined Spaces - General Awareness	OPS-EHS-WI-012	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Control of Hazardous Energy - Affected	OPS-EHS-WI-009	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Compressed Gas Safety	OPS-EHS-WI-020	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Contractor Safety	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Not Required	Not Required	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION			OPERATIONS				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Operation Manager	Operator Receiving	Operator Solid Waste	Operator Hazardous Waste	Operator Lab Packer
OSHA: Electrical Safety Related Work Practices	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Emergency Management Plan	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Emergency Management Plan - Critical Roles, Operations and Shut-Down	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Not Required	Not Required	Not Required	Not Required
OSHA: Employee Access to Medical Records	OPS-EHS-WI-013	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Fire Prevention	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Fire Extinguisher	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required	Required
OSHA: First Aid and CPR	OPS-EHS-WI-008	Initial	Every 2-Years	Safety Matters	Required	Optional	Optional	Optional	Optional
OSHA: Flammable and Combustible Liquids	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Hazard Chemicals in Laboratory	OPS-EHS-WI-006	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Hazard Communication	OPS-EHS-WI-010	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Hazwoper First Responder (Spill)	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Hazwoper 40-Hour	OPS-EHS-WI-005	Initial	N/A	Lindenberg Compliance	Required	Required	Required	Required	Required
OSHA: Hazwoper 24-Hour	OPS-EHS-WI-005	Initial	Annually	Lindenberg Compliance	Not Required	Not Required	Not Required	Not Required	Not Required
OSHA: Hazwoper 8-Hour	OPS-EHS-WI-005	N/A	Annually	Lindenberg Compliance	Required	Required	Required	Required	Required
OSHA: Hot Work - General Awareness	OPS-EHS-WI-019	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Incident Reporting and Investigation	OPS-EHS-WI-004	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Ladder Safety	OPS-EHS-WI-023	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Personal Protective Equipment	OPS-EHS-WI-001	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Powered Industrial Truck - Forklift	OPS-EHS-WI-002	Initial	Every 3-Years	Wisconsin Lift Truck	Required	Required	Required	Required	Required
OSHA: Powered Industrial Truck - Pallet Jack	OPS-EHS-WI-002	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Process Safety Management - General Awareness	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Process Safety Management - Hazard Analysis	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Process Safety Management - Information	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Process Safety Management - Operator Responsibility	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Respirator - Air-Purifying Fit Testing	OPS-EHS-WI-017	Initial	Annually	Concentra Medical	Optional	Required	Required	Required	Required
OSHA: Respirator - Air-Purifying Medical Release	OPS-EHS-WI-017	Initial	Expiration Date	Concentra Medical	Optional	Required	Required	Required	Required
OSHA: Respirator - Air-Purifying Training	OPS-EHS-WI-017	Initial	Every 2-Year	CEO/Operations	Optional	Required	Required	Required	Required
OSHA: Respirator - Dust Mask	OPS-EHS-WI-017	Initial	N/A	CEO/Operations	Optional	Required	Required	Required	Required
OSHA: Safety Orientation - Office	N/A	Initial	N/A	CEO/Operations	Not Required	Not Required	Not Required	Not Required	Not Required
OSHA: Safety Orientation - Technical and Operations	N/A	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Static Electricity (Grounding and Bonding)	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required	Required	Required	Required
OSHA: Visitor Safety	OPS-EHS-WI-025	Initial	N/A	CEO/Operations	Required	Not Required	Not Required	Not Required	Not Required

Wisconsin Department of Natural Resources (WDNR) and EPA									
WDNR: RCRA Hazardous Waste - McCoy 5-Day Course	OPS-EHS-WI-018	Initial	N/A	McCoy	Required	Not Required	Not Required	Not Required	Not Required
WDNR: Solid Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: Solid Waste Function Specific - Bulking, Consolidation and Depack/Repack	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: Used Oil Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: Electronic Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: Universal Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Hazardous Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Generator Classes	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Characterization and Determination (Profiling)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Sampling, Analytical Testing and Interpretation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Analysis Plan	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Waste Handling Limitations	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Manifest, Recordkeeping and Reporting	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Land Ban	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Container Management (Handling and Storage)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Bulking Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Consolidation Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required

TRAINING COURSES		TRAINING INFORMATION			OPERATIONS				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Operation Manager	Operator Receiving	Operator Solid Waste	Operator Hazardous Waste	Operator Lab Packer
WDNR: RCRA Function Specific - Depack/Repack Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Aerosol Puncturing Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Fuel Blending Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Acid and Base Neutralization Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Chemical Segregation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Ignitable, Reactive and Incompatibles	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Air Emissions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Exclusions and Exemptions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Preparedness, Prevention and Contingency Planning	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: RCRA Function Specific - Inspections	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required	Not Required	Not Required	Not Required
WDNR: RCRA Function Specific - Transportation 10-Day Transfer Facility	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR - RCRA Function Specific - Waste Minimization and Pollution Prevention	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required	Required	Required	Required
WDNR: Storm Water Management	OPS-EHS-WI-026	Initial	Annually	CEO/Operations	Required	Required	Required	Required	Required
EPA: Spill Prevention, Control and Countermeasure	OPS-EHS-WI-016	Initial	Annually	CEO/Operations	Required	Required	Required	Required	Required

Standard Operating Procedures (SOPs)									
Administrative - Human Resources - SOPs	ADM-HR-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required	Required
Administrative - Information Technology - SOPs	ADM-IT-SOP-XXX	Initially	N/A	Department Manager	Required	Required	Required	Required	Required
Sales and Marketing - Sales - SOPs	SAM-SAL-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Marketing - SOPs	SAM-MKT-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Customer Service - SOPs	SAM-CST-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Sales and Marketing - Finance - SOPs	SAM-FIN-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Technical Services - Regulatory - SOPs	TSS-REG-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Technical Services - Approvals - SOPs	TSS-APP-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Technical Services - Laboratory - SOPs	TSS-LAB-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Operations - Scheduling - SOPs	OPS-SCH-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Receiving - SOPs	OPS-REC-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Solid Waste Management - SOPs	OPS-NH-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - RCRA Hazardous Waste Management - SOPs	OPS-HAZ-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Used Oil Management - SOPs	OPS-OIL-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Universal Waste Small Quantity Handler Management - SOPs	OPS-UNV-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Solvent Continue Use Management - SOPs	OPS-SCU-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Transportation - SOPs	OPS-TRN-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Total Preventative Maintenance - SOPs	OPS-TPM-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required
Operations - Environmental, Health and Safety - SOPs	OPS-EHS-SOP-XXX	Initially	N/A	Operations Manager	Required	Required	Required	Required	Required

On-The-Job (OTJ)									
Emergency Management - Evacuation Routes and Meeting Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Emergency Management - Alarm System Operation	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Emergency Management - Location and Operations of Two-Way Walkie Talkies	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Emergency Management - Spill Kit Locations and Items	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Emergency Management - Fire Extinguishers and Fire Hoses Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Emergency Management - Emergency Eyewash and Shower Location and Use	OPS-EHS-WI-010	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bloodborne Pathogens - Bloodborne Pathogen Clean-Up Kit Location	OPS-EHS-WI-007	Initially	N/A	Manager	Required	Optional	Optional	Optional	Optional
Medical Management - First Aid Kit Location	OPS-EHS-WI-008	Initially	N/A	Manager	Required	Required	Required	Required	Required
Incident Reporting and Investigation - Report Forms and Submittal	OPS-EHS-WI-004	Initially	N/A	Manager	Required	Required	Required	Required	Required
Personal Protective Equipment - PPE Cabinet and Items	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required	Required	Required	Required
Personal Protective Equipment - Safety Shoes Reimbursement	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required	Required	Required	Required
Respiratory Protection - Issuance of Respirator, Cartridges and Storage Container	OPS-EHS-WI-017	Initially	N/A	Manager	Not Required	Required	Required	Required	Required
Powered Industrial Trucks - Daily Inspection Sheets	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required	Required	Required	Required
Powered Industrial Trucks - Battery Water Addition	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Required	Required	Required	Required

TRAINING COURSES		TRAINING INFORMATION			OPERATIONS				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Operation Manager	Operator Receiving	Operator Solid Waste	Operator Hazardous Waste	Operator Lab Packer
Powered Industrial Trucks - Proper Pallet Jack Usage	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Required	Required	Required	Required
Powered Industrial Trucks - Charging	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Required	Required	Required	Required
Powered Industrial Trucks - Drum Dumper Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Required	Required	Required	Required
Powered Industrial Trucks - 2 Drum Handler Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Not Required	Required	Required	Required	Required
Hazardous Chemicals in Laboratory - Proper Chemical Storage	OPS-EHS-WI-009	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Static Electricity - Grounding and Bonding Equipment and Usage	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required	Required	Required	Required
Secondary Containment - Sampling of Rainwater and Documentation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Required	Required	Required	Required
Secondary Containment - Manhole Valves Close/Open Operation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Proper Hose Hook-Up, Connections, Fittings	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Loading and Unloading Inspection	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Use of Strainer	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Wheels Chocked	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Placarding	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Bulk Tanker - Vacuum Operation	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required	Not Required
Straight Trucks and Semi-Trailer - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Straight Trucks and Semi-Trailers - Placarding	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Straight Trucks and Semi-Trailer - Wheels Chocked	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Straight Trucks and Semi-Trailers - Loading Dock Operation	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Proper Container Labeling - Internal Bar Code Label	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Storage - Segregation of Waste and Use of Containment Pallets	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Storage - Leaking Container Overpack Container Use	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Storage - Handling Container Under Pressure	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
AGST - Pumping from RM 126 into Tanks	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
AGST - Pumping from RM 126 into Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Not Required	Not Required	Not Required	Not Required
AGST - Pumping from Tanks to a Tanker Vehicle	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
AGST - Pumping from Tanker Vehicle to a Tank	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
RM 125 and RM 126 - No Cell Phones	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
RM 125 and RM 126 - Use of Non-Sparking Tools Only	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
RM 125 and RM 126 - No Portable Electrical Equipment (Fans, Tools, Etc.) Allowed	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Equipment - Drum Cart Usage	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Equipment - Floor Scrubber Proper Operation	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Equipment - Pressure Washer Proper Operation	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Building - Security System On/Off	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Building - Badge Card Access	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Building - Housekeeping	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Building - No Smoking on the Property	N/A	Initially	N/A	Manager	Required	Required	Required	Required	Required
Waste Generation - Empty Container Recycling Trailer	TBD	Initially	N/A	Manager	Required	Required	Required	Required	Required
Waste Generation - Satellite Accumulation Containers	WI-EHS-018	Initially	N/A	Manager	Required	Required	Required	Required	Required





**Enviro-Safe Resource Recovery - Germantown**

**Training Matrix**

Last Updated: 6/23/2022

TRAINING COURSES		TRAINING INFORMATION			TRANSPORTATION	
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Coordinator	Drivers
<b>DEPARTMENT OF TRANSPORTATION (DOT)</b>						
DOT: Driver - DMV Certification of Licenses	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Required
DOT: Driver - DMV Background Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Required
DOT: Driver - FMSCA Clearinghouse Check	OPS-EHS-WI-014	Initial	Annually	CEO/Operations	Not Required	Required
DOT: Driver - Medical Exam and Certification	OPS-EHS-WI-014	Initial	Expiration Date	CEO/Operations	Not Required	Required
DOT: Driver - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Not Required	Required
DOT: Supervisor - Alcohol and Drug Testing	OPS-EHS-WI-014	Initial	N/A	CEO/Operations	Required	Required
DOT: Driver - Accident Procedures (43861)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Entry Level Operator (43001)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Hours of Service Bacis (61324)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Injury Prevention for CMV Drivers (48454)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Injury Prevention Around Tankers (49838)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Manage Speed and Space (55757)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Straight Truck Operation (51254)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Tank Truck Operation (24456 & 24455)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: Driver - Vehicle Inspection Tractor Trailer (51916)	OPS-EHS-WI-014	Initial	N/A	J.J. Keller (Online)	Not Required	Required
DOT: HM General Awareness and Familiarization	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Hazard Classification Table	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Packaging	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Marking and Labeling	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Placarding	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Shipping Papers	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Loading/Unloading (Non-Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Loading/Unloading (Bulk)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Chemical Segregation	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Safety Training (51916)	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Special Permits	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - ERG Book	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Incident Reporting	OPS-EHS-WI-003	Initial	Every 3-Years	Technical Service Manager	Required	Required
DOT: HM Function Specific - Material-of-Trade	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required
DOT: HM Security Awareness	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Required	Required
DOT: HM Security In-Depth	OPS-EHS-WI-003	Initial	Every 3-Years	CEO/Operations	Not Required	Not Required
<b>FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)</b>						
FEMA: Active Shooter (IS-00907)	N/A	Initial	N/A	FEMA (Online)	Required	Required

TRAINING COURSES		TRAINING INFORMATION				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Transportation Coordinator	Transportation Drivers
FEMA: Basic Workplace Security Awareness (IS-00906)	N/A	Initial	N/A	FEMA (Online)	Required	Required
FEMA: Theft and Diversion (IS-00916)	N/A	Initial	N/A	FEMA (Online)	Required	Required
OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA)						
OSHA: 10-Hour General Industry	N/A	Initial	N/A	Various	Not Required	Not Required
OSHA: Bloodborne Pathogen - Training	OPS-EHS-WI-007	Initial	Annually	CEO/Operations	Required	Optional
OSHA: Bloodborne Pathogen - HBV Vaccination	OPS-EHS-WI-007	Initial	N/A	CEO/Operations	Optional	Optional
OSHA: Confined Spaces - General Awareness	OPS-EHS-WI-012	Initial	N/A	CEO/Operations	Required	Required
OSHA: Control of Hazardous Energy - Affected	OPS-EHS-WI-009	Initial	N/A	CEO/Operations	Required	Required
OSHA: Compressed Gas Safety	OPS-EHS-WI-020	Initial	N/A	CEO/Operations	Required	Required
OSHA: Contractor Safety	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Not Required
OSHA: Electrical Safety Related Work Practices	OPS-EHS-WI-021	Initial	N/A	CEO/Operations	Required	Required
OSHA: Emergency Management Plan	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Require	Required
OSHA: Emergency Management Plan - Critical Roles, Operations and Shut-Down	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Not Required	Not Required
OSHA: Employee Access to Medical Records	OPS-EHS-WI-013	Initial	N/A	CEO/Operations	Required	Required
OSHA: Fire Prevention	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Require	Required
OSHA: Fire Extinguisher	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Require	Required
OSHA: First Aid and CPR	OPS-EHS-WI-008	Initial	Every 2-Years	Safety Matters	Required	Optional
OSHA: Flammable and Combustible Liquids	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required
OSHA: Hazard Chemicals in Laboratory	OPS-EHS-WI-006	Initial	N/A	CEO/Operations	Not Required	Not Required
OSHA: Hazard Communication	OPS-EHS-WI-010	Initial	N/A	CEO/Operations	Required	Required
OSHA: Hazwoper First Responder (Spill)	OPS-EHS-WI-005	Initial	Annually	CEO/Operations	Require	Required
OSHA: Hazwoper 40-Hour	OPS-EHS-WI-005	Initial	N/A	Lindenberg Compliance	Require	Required
OSHA: Hazwoper 24-Hour	OPS-EHS-WI-005	Initial	Annually	Lindenberg Compliance	Not Required	Not Required
OSHA: Hazwoper 8-Hour	OPS-EHS-WI-005	N/A	Annually	Lindenberg Compliance	Require	Required
OSHA: Hot Work - General Awareness	OPS-EHS-WI-019	Initial	N/A	CEO/Operations	Required	Required
OSHA: Incident Reporting and Investigation	OPS-EHS-WI-004	Initial	N/A	CEO/Operations	Required	Required
OSHA: Ladder Safety	OPS-EHS-WI-023	Initial	N/A	CEO/Operations	Required	Required
OSHA: Personal Protective Equipment	OPS-EHS-WI-001	Initial	N/A	CEO/Operations	Required	Required
OSHA: Powered Industrial Truck - Forklift	OPS-EHS-WI-002	Initial	Every 3-Years	Wisconsin Lift Truck	Required	Required
OSHA: Powered Industrial Truck - Pallet Jack	OPS-EHS-WI-002	Initial	Every 3-Years	CEO/Operations	Required	Required
OSHA: Process Safety Management - General Awareness	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required
OSHA: Process Safety Management - Hazard Analysis	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - Information	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Not Required
OSHA: Process Safety Management - Operator Responsibility	OPS-EHS-WI-015	Initial	Every 3-Years	CEO/Operations	Required	Required
OSHA: Respirator - Air-Purifying Fit Testing	OPS-EHS-WI-017	Initial	Annually	Concentra Medical	Not Required	Not Required
OSHA: Respirator - Air-Purifying Medical Release	OPS-EHS-WI-017	Initial	Expiration Date	Concentra Medical	Not Required	Not Required
OSHA: Respirator - Air-Purifying Training	OPS-EHS-WI-017	Initial	Every 2-Year	CEO/Operations	Not Required	Not Required
OSHA: Respirator - Dust Mask	OPS-EHS-WI-017	Initial	N/A	CEO/Operations	Not Required	Not Required
OSHA: Safety Orientation - Office	N/A	Initial	N/A	CEO/Operations	Not Required	Not Required

TRAINING COURSES		TRAINING INFORMATION				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Transportation Coordinator	Transportation Drivers
OSHA: Safety Orientation - Technical and Operations	N/A	Initial	N/A	CEO/Operations	Required	Required
OSHA: Static Electricity (Grounding and Bonding)	OPS-EHS-WI-005	Initial	N/A	CEO/Operations	Required	Required
OSHA: Visitor Safety	OPS-EHS-WI-025	Initial	N/A	CEO/Operations	Required	Not Required
<b>Wisconsin Department of Natural Resources (WDNR) and EPA</b>						
WDNR: RCRA Hazardous Waste - McCoy 5-Day Course	OPS-EHS-WI-018	Initial	N/A	McCoy	Required	Not Required
WDNR: Solid Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Solid Waste Function Specific - Bulking, Consolidation and Depack/Repack	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required
WDNR: Used Oil Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Electronic Management - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Universal Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Hazardous Waste - General Awareness and Familiarization	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Generator Classes	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Waste Characterization and Determination (Profiling)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Sampling, Analytical Testing and Interpretation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Not Required	Not Required
WDNR: RCRA Function Specific - Waste Analysis Plan	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Waste Handling Limitations	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Manifest, Recordkeeping and Reporting	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Land Ban	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Container Management (Handling and Storage)	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Bulking Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Consolidation Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Depack/Repack Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Aerosol Puncturing Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Fuel Blending Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Acid and Base Neutralization Activities	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Chemical Segregation	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Ignitable, Reactive and Incompatibles	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Air Emissions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Exclusions and Exemptions	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Preparedness, Prevention and Contingency Planning	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: RCRA Function Specific - Inspections	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Not Required
WDNR: RCRA Function Specific - Transportation 10-Day Transfer Facility	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR - RCRA Function Specific - Waste Minimization and Pollution Prevention	OPS-EHS-WI-018	Initial	Annually	Technical Approval Manager	Required	Required
WDNR: Storm Water Management	OPS-EHS-WI-026	Initial	Annually	CEO/Operations	Required	Required
EPA: Spill Prevention, Control and Countermeasure	OPS-EHS-WI-016	Initial	Annually	CEO/Operations	Required	Required
<b>Standard Operating Procedures (SOPs)</b>						
Administrative - Human Resources - SOPs	ADM-HR-SOP-XXX	Initially	N/A	Department Manager	Required	Required
Administrative - Information Technology - SOPs	ADM-IT-SOP-XXX	Initially	N/A	Department Manager	Required	Required

TRAINING COURSES		TRAINING INFORMATION				
	Associated Program	Initial Training	Retraining	Trainer/Responsibility	Transportation Coordinator	Transportation Drivers
Sales and Marketing - Sales - SOPs	SAM-SAL-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required
Sales and Marketing - Marketing - SOPs	SAM-MKT-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required
Sales and Marketing - Customer Service - SOPs	SAM-CST-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required
Sales and Marketing - Finance - SOPs	SAM-FIN-SOP-XXX	Initially	N/A	Sales & Marketing Manager	Not Required	Not Required
Technical Services - Regulatory - SOPs	TSS-REG-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required
Technical Services - Approvals - SOPs	TSS-APP-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required
Technical Services - Laboratory - SOPs	TSS-LAB-SOP-XXX	Initially	N/A	Technical Services Manager	Not Required	Not Required
Operations - Scheduling - SOPs	OPS-SCH-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Receiving - SOPs	OPS-REC-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Solid Waste Management - SOPs	OPS-NH-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - RCRA Hazardous Waste Management - SOPs	OPS-HAZ-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Used Oil Management - SOPs	OPS-OIL-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Universal Waste Small Quantity Handler Management - SOPs	OPS-UNV-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Solvent Continue Use Management - SOPs	OPS-SCU-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Transportation - SOPs	OPS-TRN-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Total Preventative Maintenance - SOPs	OPS-TPM-SOP-XXX	Initially	N/A	Operations Manager	Required	Required
Operations - Environmental, Health and Safety - SOPs	OPS-EHS-SOP-XXX	Initially	N/A	Operations Manager	Required	Required

On-The-Job (OTJ)						
Emergency Management - Evacuation Routes and Meeting Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Alarm System Operation	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Location and Operations of Two-Way Walkie Talkies	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Spill Kit Locations and Items	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Fire Extinguishers and Fire Hoses Location	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Emergency Management - Emergency Eyewash and Shower Location and Use	OPS-EHS-WI-010	Initially	N/A	Manager	Required	Required
Bloodborne Pathogens - Bloodborne Pathogen Clean-Up Kit Location	OPS-EHS-WI-007	Initially	N/A	Manager	Optional	Optional
Medical Management - First Aid Kit Location	OPS-EHS-WI-008	Initially	N/A	Manager	Required	Required
Incident Reporting and Investigation - Report Forms and Submittal	OPS-EHS-WI-004	Initially	N/A	Manager	Required	Required
Personal Protective Equipment - PPE Cabinet and Items	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required
Personal Protective Equipment - Safety Shoes Reimbursement	OPS-EHS-WI-001	Initially	N/A	Manager	Required	Required
Respiratory Protection - Issuance of Respirator, Cartridges and Storage Container	OPS-EHS-WI-017	Initially	N/A	Manager	Not Required	Not Required
Powered Industrial Trucks - Daily Inspection Sheets	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Powered Industrial Trucks - Battery Water Addition	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Powered Industrial Trucks - Proper Pallet Jack Usage	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Powered Industrial Trucks - Charging	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Powered Industrial Trucks - Drum Dumper Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Powered Industrial Trucks - 2 Drum Handler Attachment Operation	OPS-EHS-WI-002	Initially	N/A	Manager	Required	Required
Hazardous Chemicals in Laboratory - Proper Chemical Storage	OPS-EHS-WI-009	Initially	N/A	Manager	Not Required	Not Required
Static Electricity - Grounding and Bonding Equipment and Usage	OPS-EHS-WI-005	Initially	N/A	Manager	Required	Required
Secondary Containment - Sampling of Rainwater and Documentation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Not Required


TRAINING COURSES		TRAINING INFORMATION			Transportation Coordinator	Transportation Drivers
	Associated Program	Initial Training	Retraining	Trainer/Responsibility		
Secondary Containment - Manhole Valves Close/Open Operation	OPS-EHS-WI-016	Initially	N/A	Manager	Required	Required
Bulk Tanker - Proper Hose Hook-Up, Connections, Fittings	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Loading and Unloading Inspection	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Use of Strainer	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Wheels Chocked	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Placarding	TBD	Initially	N/A	Manager	Required	Required
Bulk Tanker - Vacuum Operation	TBD	Initially	N/A	Manager	Not Required	Required
Straight Trucks and Semi-Trailer - Loading and Unloading Procedures	TBD	Initially	N/A	Manager	Required	Required
Straight Trucks and Semi-Trailers - Placarding	TBD	Initially	N/A	Manager	Required	Required
Straight Trucks and Semi-Trailer - Wheels Chocked	TBD	Initially	N/A	Manager	Required	Required
Straight Trucks and Semi-Trailers - Loading Dock Operation	TBD	Initially	N/A	Manager	Required	Required
Proper Container Labeling - Internal Bar Code Label	TBD	Initially	N/A	Manager	Required	Required
Storage - Segregation of Waste and Use of Containment Pallets	TBD	Initially	N/A	Manager	Required	Required
Storage - Leaking Container Overpack Container Use	TBD	Initially	N/A	Manager	Required	Required
Storage - Handling Container Under Pressure	TBD	Initially	N/A	Manager	Required	Required
AGST - Pumping from RM 126 into Tanks	TBD	Initially	N/A	Manager	Required	Required
AGST - Pumping from RM 126 into Tanker Vehicle	TBD	Initially	N/A	Manager	Not Required	Required
AGST - Pumping from Tanks to a Tanker Vehicle	TBD	Initially	N/A	Manager	Required	Required
AGST - Pumping from Tanker Vehicle to a Tank	TBD	Initially	N/A	Manager	Required	Required
RM 125 and RM 126 - No Cell Phones	TBD	Initially	N/A	Manager	Required	Required
RM 125 and RM 126 - Use of Non-Sparking Tools Only	TBD	Initially	N/A	Manager	Required	Required
RM 125 and RM 126 - No Portable Electrical Equipment (Fans, Tools, Etc.) Allowed	TBD	Initially	N/A	Manager	Required	Required
Equipment - Drum Cart Usage	N/A	Initially	N/A	Manager	Required	Required
Equipment - Floor Scrubber Proper Operation	N/A	Initially	N/A	Manager	Required	Required
Equipment - Pressure Washer Proper Operation	N/A	Initially	N/A	Manager	Required	Required
Building - Security System On/Off	N/A	Initially	N/A	Manager	Required	Required
Building - Badge Card Access	N/A	Initially	N/A	Manager	Required	Required
Building - Housekeeping	N/A	Initially	N/A	Manager	Required	Required
Building - No Smoking on the Property	N/A	Initially	N/A	Manager	Required	Required
Waste Generation - Empty Container Recycling Trailer	TBD	Initially	N/A	Manager	Not Required	Not Required
Waste Generation - Satellite Accumulation Containers	WI-EHS-018	Initially	N/A	Manager	Not Required	Not Required

**APPENDIX M: PERSONAL PROTECTIVE EQUIPMENT PLAN AND RESPIRATORY PROTECTION PLAN**

M-01 Personal Protective Equipment Plan

M-02 Respiratory Protection Plan

**Enviro-Safe Resource Recovery**  
**Appendix M-01 - Personal Protective Equipment Plan**

Document No.: <b>EHS-WI-001</b>	Revision Date: <b>2/2/2022</b>	Revision No.: <b>003</b>	
Document Title: <b>PERSONAL PROTECTIVE EQUIPMENT PLAN</b>			
Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/2/2022</b>	

**1.0 PURPOSE**

1.1 The purpose of this procedure is to define the minimum safety requirements for the use of personal protective equipment during daily operation at the facility.

**2.0 SCOPE**

2.1 This program applies to full-time, part-time and temporary employees, as well as, contractors and subcontractors that may become present on-site for which the organization assumes direct supervision.

**3.0 LEGAL COMPLIANCE**

3.1 This program has been prepared in accordance with OSHA 29 CFR 1910.132 (general), 1910.133 (eye and face), 1910.135 (head), 1910.136 (feet) and 1910.138 (hand) governing the general requirements for protective equipment in an industrial setting.

3.2 The requirements for respirator protection can be found under separate plan.

**4.0 DEFINITIONS**

4.1 Health Hazard. A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees per Hazard Communication Standard (29 CFR 1910.1200).

4.2 Physical Hazard. A type of occupational hazard that involves environmental hazards that can cause harm with or without contact.

4.3 Personal Protective Equipment (PPE). Specialized clothing worn by employees to protect the body from health and safety hazards.

**5.0 ORGANIZATION AND PERSONNEL RESPONSIBILITIES**

5.1 Operations Manager. The Operations Manager, along with the Technical Service Manager, shall be responsible for implementing and enforcing the personal protective equipment requirements at the facility. This includes providing the respective personal protective equipment for employees, training employees in their use and enforce its use when required.

5.2 Technical Service Manager. The Technical Service Manager, along with the Operations Manager, shall be responsible for implementing and enforcing the personal protective equipment requirements at the facility. This includes providing the respective personal protective equipment for employees, training employees in their use and enforce its use when required.


5.3 Employees. Employees are responsible for following, wearing and maintaining the integrity of the personal protective equipment required to be worn.

**6.0 HAZARD ASSESSMENT and EQUIPMENT SELECTION**

6.1 An assessment of the facility shall be performed to determine if hazards are present, or likely to be present, which necessitate the use of PPE. The workplace hazard assessment shall be documented through a written certification (Appendix A - Personal Protective Equipment Hazard Assessment).

6.2 All personal protective clothing and equipment will be of safe design and construction for the work to be performed and shall be maintained in a sanitary and reliable condition.



Document No.: <b>EHS-WI-001</b>	Revision Date: <b>2/2/2022</b>	Revision No.: <b>003</b>	
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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/2/2022</b>	

Only those items of protective clothing and equipment that meets NIOSH, ANSI and/or ASTM standards, or their equivalent, will be procured or accepted for use. The selection guide used to assist in choosing the correct personal protective equipment can be found at [www.safetyequipment.org](http://www.safetyequipment.org).

**7.0 EYE AND FACE PROTECTION**


- 7.1 Safety eyewear shall be worn in those areas, as determined appropriate by the organization through the hazard assessment. At the present time safety eyewear is required to be worn by employees whenever they become present within the warehouse. This includes office employees, visitors, guests, vendors, contractor and other personal that may be come present within the warehouses. In addition, safety goggles may be required when working directly with chemicals that may present a higher hazard. Safety eyewear shall be issued to all driver's operating transportation vehicles should they become present at a site for which eye protection is required. Safety eyewear shall comply with the American National Standard for Eyewear Protection (ANSI Z87.1-2010).
- 7.2 Safety eyewear shall be provided by the organization which complies with the American National Standard for Personal Protection - Eyewear Protection (ANSI Z87.1-2010) shall be deemed appropriate safety eyewear by the organization. Employees requiring prescription eyewear may receive reimbursement benefits from the organization on a case-by-case basis.
- 7.3 Emergency showers and eyewash units meeting the requirements of American National Standard for Emergency Eyewash and Drench Showers (ANSI Z358.1) shall be provided in areas where the eyes of an employee may be exposed to hazardous materials. All such emergency facilities will be located where they are easily accessible in an emergency situation.

**8.0 HEAD PROTECTION**

- 8.1 Under normal circumstances, head protection is not required. However, head protection shall be issued to all driver's operating transportation vehicles should they become present at a site for which head protection is required. Head protection shall comply with the American National Standard for Head Protection (ANSI Z89.1-1986).

**9.0 FOOT PROTECTION**

- 9.1 Safety footwear shall be worn in those areas, as determined appropriate by the organization through the hazard assessment. At the present time safety footwear is required to be worn by employees conducting work within the warehouse and by driver's operating transportation vehicles. Office employees, visitors, guests, vendors and other personal are not required to wear safety footwear provided they do not conduct physical work within the warehouse or operate transportation vehicles.
- 9.2 Employees required to wear safety footwear shall receive reimbursement benefits from the organization as outline within the Safety Footwear Reimbursement Policy and Form (Appendix B). Safety footwear which complies with the American National Standard for Personal Protection - Protective Footwear (ANSI Z41.1-1991) or American Society of Testing Materials - Specification for Performance Requirements for Foot Protection (ASTM F2413-05) shall be deemed appropriate safety footwear by the organization and subject to reimbursement.

Document No.: <b>EHS-WI-001</b>	Revision Date: <b>2/2/2022</b>	Revision No.: <b>003</b>	
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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/2/2022</b>	

## 10.0 HAND PROTECTION

- 10.1 Hand protection shall be worn when required to provide protection from chemicals, cuts, lacerations, and/or abrasions. Glove selection shall be based on the performance characteristics of the gloves, conditions, duration of use and hazards present. See Appendix D: Glove Selection Guide (Appendix D) for assistance.
- 10.2 At the present time gloves are not required to be worn by employees conducting routine warehouse activities. However, any time a container is open or there is any interaction (i.e., consolidation or bulking activities) with chemicals, gloves are required. This includes non-route events such as cleaning up chemical leaks and spills. Gloves are provided by the organization for employee's use. In addition, gloves shall be issued to all transportation drivers should they be needed at a site for loading or unloading activities. Since there are no ANSI standards for gloves, selection shall be based upon the performance characteristics of the glove in relation to the task(s) to be performed.

## 11.0 BODY PROTECTION


- 11.1 Body protection shall be used when required to provide protection from non-hazardous and hazardous waste. At the present time, disposal Tyvek coveralls are required to be worn when there is exposure to non-hazardous particulates (waste, oil, grease, lubricants) and liquid splashing. Disposal Tychem coveralls are required to be worn when there is exposure to hazardous dry powders and solids (dry pharma chemicals), light chemical splashes and aerosol (inorganic acids and bases) and moderate liquid chemical splashes (organic solvents).
- 11.2 Cotton uniforms are provided as part of the Uniform Policy (WI-HR-003) and are required to be worn within specific departments to provide for uniformity, reflect good appearance and provide ease of recognition and/or identification for organizational employees to both internal and external parties. The cotton uniforms are not regarded as personal protective equipment. If body protection is required from hazard present, the appropriate disposal Tyvek or Tychem coverall should be worn.

## 12.0 CLEANING AND MAINTENANCE

- 12.1 Cleaning and Maintenance. PPE should be inspected, cleaned, and maintained at regular intervals to ensure that the personal protective equipment provides the requisite protection. Personal protective equipment should not be shared between employees until it has been properly cleaned and sanitized. Personal protective equipment will be distributed for individual use whenever possible. Contaminated personal protective equipment, which cannot be decontaminated, shall be disposed of in a manner that protects employees from exposure to hazards.
- 12.2 Damaged or Malfunctioning Equipment. Equipment shall only be used as intended and when the PPE has become damaged, broken, or otherwise it shall be discarded. It is the responsibility of the wearer to discard damaged PPE. Extra personal protective equipment stocks are maintained and damaged PPE shall be replaced.

## 13.0 INVENTORY

- 13.1 An inventory of personal protective equipment will be readily available which will include:
- Safety Glasses with Side Shields
  - Safety Goggles
  - Face Shield
  - General Purpose Work Gloves
  - Chemical Resistant Boots/Covers
  - Tyvek and Tychem Coveralls
  - Dust Mask (separate program)
  - Respirator Cartridges (separate program)

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- Leather Gloves
- Chemical Resistant Gloves
- Ear Plugs
- Insulated Gloves (for cold weather)

13.2 Personalized and specialized personal protective equipment is issued to employees on an individual basis (e.g., safety shoes, safety glasses, air-purifying respirators).

**14.0 TRAINING**

14.1 All employees within the organization must complete personal protective equipment training before conducting work. This training will ensure that employees are knowledgeable on the use of personal protective equipment while performing their specific duties.

**15.0 RELATED DOCUMENTS**


- 15.1 Appendix A - Personal Protective Equipment Hazard Assessment
- 15.2 Appendix B - Safety Footwear Reimbursement Policy and Form
- 15.3 Appendix C - Glove Selection Guide
- 15.4 Appendix D - Personal Protective Equipment Training Protocol

**16.0 REFERENCED DOCUMENTS**

- 16.1 Personal Protective Equipment - General Requirements (OSHA 29 CFR 1910.132)
- 16.2 Personal Protective Equipment - Eye and Face Protection (OSHA 29 CFR 1910.133)
- 16.3 Personal Protective Equipment - Head Protection (OSHA 29 CFR 1910.135)
- 16.4 Personal Protective Equipment - Feet Protection (OSHA 29 CFR 1910.136)
- 16.5 Personal Protective Equipment - Hand Protection (OSHA 29 CFR 1910.138)
- 16.6 Hazard Communication Standard (OSHA 29 CFR 1910.1200)
- 16.7 American National Standard for Hand Protection (ANSI Z87.1-1986)
- 16.8 American National Standard for Emergency Eyewash and Drench Showers (ANSI Z358.1)
- 16.9 American National Standard for Head Protection (ANSI Z89.1-1986).
- 16.10 American National Standard for Personal Protection - Protective Footwear (ANSI Z41.1-12.11 1991) American Society of Testing Materials - Specification for Performance Requirements for Foot Protection (ASTM F2413-05)
- 16.11 Uniform Policy (HR-WI-004)


**17.0 REVISION SUMMARY**


Date	Revisions	Revised By
8/31/2016	New Document	D. Zellmer
4/11/2019	Reviewed and Revised PPE Assessment as Needed	D. Zellmer
9/3/2021	WDNR requested changes.	D. Zellmer
2/2/2022	Reviewed and updated to provide clarification of PPE required to be worn.	D. Zellmer


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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT –  
LABORATORY – CHEMISTS AND TECHNICIANS**


The primary risk when working in the laboratory is dealing with hazardous chemicals that come in as samples for analysis. Various characterization tests are performed which may expose those in the room to chemical splashes, projectiles, fires, vapor formation, or other hazards. For this reason, the correct PPE is necessary.


<b>BODY HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Laboratory Coat	Required
	Chemical Exposure: Other	Yes	Tyvek Suit	N/A


<b>EYE/FACE HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	Required
	Impact: Flying Objects/Debris	Yes	Safety Glasses with Side-Shield	N/A
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	Required
	Chemical: Splashing	Yes	Safety Goggles	As Needed


<b>HAND HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	As Needed
	Penetration: Sharp Objects	Yes	Leather Gloves	As Needed
	Chemicals	Yes	Chemical Resistant Gloves	As Needed
	Extreme Cold	Yes	Insulated Gloves	As Needed


<b>HEAD HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
	Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A

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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	Yes	Chemical Resistant Boots/Covers	As Needed
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	N/A

RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	As Needed
	Chemical: Vapors	Yes	Air-Purifying Respirator	As Needed
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A


PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION	
	I certify that the personal protective equipment hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.
	Workplace Evaluated: Enviro-Safe Resource Recovery
	Assessor's Name and Title: Dawn Zellmer, CEO
	Date of the Assessment: February 2, 2022

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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
RECEIVING**

The primary risk when conducting receiving operations is the exposure to chemical splashes, vapors, dust, and other hazards while conducting sampling and other receiving activities. For this reason, the correct PPE is necessary.


**BODY HAZARD and PROTECTION**

	Hazard		Required Protection	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coveralls - Tyvek 400	As Needed
	Chemical Exposure: Other	Yes	Tyvek Coveralls - Tyvek 400	As Needed


**EYE/FACE HAZARD and PROTECTION**


	Hazard		Required Protection	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	Required
	Impact: Flying Objects/Debris	Yes	Safety Glasses with Side-Shield	Required
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	Required
	Chemical: Splashing	Yes	Safety Goggles	As Needed


**HAND HAZARD and PROTECTION**


	Hazard		Required Protection	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	As Needed
	Penetration: Sharp Objects	Yes	Leather Gloves	As Needed
	Chemicals	Yes	Chemical Resistant Gloves	As Needed
	Extreme Cold	Yes	Insulated Gloves	As Needed


**HEAD HAZARD and PROTECTION**

	Hazard		Required Protection	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
	Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A


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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	Yes	Chemical Resistant Boots/Covers	As Needed
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	N/A

RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	As Needed
	Chemical: Vapors	Yes	Air-Purifying Respirator	As Needed
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A

PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION	
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	Assessor's Name and Title: Dawn Zellmer, CEO
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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
SOLID WASTE - CONSOLIDATION, BULKING, LAB PACK/DEPACKING**

The primary risk when working with solid waste during consolidation, bulking and lab pack/depacking operations is the exposure to chemical splashes, vapors, dust, and other hazards. For this reason, the correct PPE is necessary.


**BODY HAZARD and PROTECTION**

	Hazard		Required Protection	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coveralls - Tyvek 400	Required
	Chemical Exposure: Other	Yes	Tyvek Coveralls - Tyvek 400	Required


**EYE/FACE HAZARD and PROTECTION**

	Hazard		Required Protection	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	Required
	Impact: Flying Objects/Debris	Yes	Safety Glasses with Side-Shield	Required
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	Required
	Chemical: Splashing	Yes	Safety Goggles	Required


**HAND HAZARD and PROTECTION**


	Hazard		Required Protection	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	N/A
	Penetration: Sharp Objects	Yes	Leather Gloves	N/A
	Chemicals	Yes	Chemical Resistant Gloves	Required
	Extreme Cold	Yes	Insulated Gloves	N/A


**HEAD HAZARD and PROTECTION**


	Hazard		Required Protection	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
	Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A




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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	Yes	Chemical Resistant Boots/Covers	As Needed
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	N/A


RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	As Needed
	Chemical: Vapors	Yes	Air-Purifying Respirator	As Needed
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A


PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION	
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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
HAZARDOUS WASTE - CONSOLIDATION, BULKING LAB PACK/DEPACKING, ELEMENTRY  
NEUTRALIZATION AND AEROSOL CAN PUNCTURING**


The primary risk when working with hazardous waste during consolidation, bulking, lab pack/depacking, elementary neutralization and aerosol can puncturing operations is the exposure to chemical splashes, vapors, dust, and other hazards. For this reason, the correct PPE is necessary.

<b>BODY HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coverall - Tychem 2000 or 4000	Required
	Chemical Exposure: Other	Yes	Tyvek Coverall - Tychem 2000 or 4000	Required

<b>EYE/FACE HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	N/A
	Impact: Flying Objects/Debris	Yes	Safety Glasses with Side-Shield	N/A
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	N/A
	Chemical: Splashing	Yes	Safety Goggles	Required

<b>HAND HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	N/A
	Penetration: Sharp Objects	Yes	Leather Gloves	N/A
	Chemicals	Yes	Chemical Resistant Gloves	Required
	Extreme Cold	Yes	Insulated Gloves	N/A


<b>HEAD HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
	Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A

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**FOOT HAZARD and PROTECTION**


	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	Yes	Chemical Resistant Boots/Covers	As Needed
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	N/A

**RESPIRATORY HAZARD and PROTECTION**

	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	As Needed
	Chemical: Vapors	Yes	Air-Purifying Respirator	As Needed
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A


**PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION**


	I certify that the personal protective equipment hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.	
	Workplace Evaluated:	Enviro-Safe Resource Recovery
	Assessor's Name and Title:	Dawn Zellmer, CEO
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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
HAZARDOUS WASTE - FUEL BLENDING**


The primary risk when working with hazardous waste during fuel blending operations is the exposure to chemical splashes, vapors, and other hazards. For this reason, the correct PPE is necessary.


<b>BODY HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coveralls - Tyvek 4000	Required
Chemical Exposure: Other	Yes	Tyvek Coveralls - Tychem 4000	Required	


<b>EYE/FACE HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	N/A
	Impact: Flying Objects/Debris	Yes	Safety Glasses with Side-Shield	N/A
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	N/A
Chemical: Splashing	Yes	Safety Goggles	Required	


<b>HAND HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	N/A
	Penetration: Sharp Objects	Yes	Leather Gloves	N/A
	Chemicals	Yes	Chemical Resistant Gloves	Required
Extreme Cold	Yes	Insulated Gloves	N/A	


<b>HEAD HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A	

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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	Yes	Chemical Resistant Boots/Covers	Required
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	N/A


RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	As Needed
	Chemical: Vapors	Yes	Air-Purifying Respirator	As Needed
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A


PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION	
	I certify that the personal protective equipment hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.
	Workplace Evaluated: Enviro-Safe Resource Recovery
	Assessor's Name and Title: Dawn Zellmer, CEO
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**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
STRAIGHT TRUCK/SEMI-TRUCK DRIVERS**


The primary risk while working as a straight truck driver is handling of containers as they are loaded and unloaded from the transportation vehicle. The driver ensures the containers are not compromised prior to loading, ensures the loads are secure during actual transportation and ensure no damage has occurred to the containers during transportation during unloading activities. During handling the containers can fall or tip, which can cause exposure to chemicals. For these reasons the proper PPE is required.

<b>BODY HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coveralls	N/A
	Chemical Exposure: Other	No	Tyvek Coveralls	N/A


<b>EYE/FACE HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	As Needed
	Impact: Flying Objects/Debris	No	Safety Glasses with Side-Shield	N/A
	Chemical: Irritating Mists	No	Safety Glasses with Side-Shield	N/A
	Chemical: Splashing	No	Safety Goggles	N/A


<b>HAND HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	As Needed
	Penetration: Sharp Objects	Yes	Leather Gloves	As Needed
	Chemicals	No	Chemical Resistant Gloves	N/A
	Extreme Cold	No	Insulated Gloves	N/A


<b>HEAD HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
	Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A

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Other: Customer Requirements	Yes	Protective Helmet: Class C	Yes
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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	No	Chemical Resistant Boots/Covers	N/A
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	No	Insulated Boots or Shoes	N/A

RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	N/A
	Chemical: Vapors	Yes	Air-Purifying Respirator	N/A
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
	Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A


PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION		
	I certify that the personal protective equipment hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.	
	Workplace Evaluated:	Enviro-Safe Resource Recovery
	Assessor's Name and Title:	Dawn Zellmer, CEO
	Date of the Assessment:	February 2, 2022





Document No.: <b>EHS-WI-001</b>	Revision Date: <b>2/2/2022</b>	Revision No.: <b>003</b>	
Document Title: <b>PERSONAL PROTECTIVE EQUIPMENT PLAN</b>			
Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/2/2022</b>	


**APPENDIX A  
PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION OF HAZARD ASSESSMENT  
TANKER TRUCK DRIVERS**

The primary risk while working as a tanker truck driver is exposure to chemicals during the loading and unloading of material or waste from the transportation vehicle. The driver affixes and removes all hoses and other attachments from the transportation vehicle to the above ground storage tanks when loading or unloading material of waste. While conducting connections or unconnecting equipment, leaks or spills can occur causing exposure to chemicals. For these reasons the proper PPE is required for the safety of all those in the warehouse.


<b>BODY HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Impact: Flying Objects	No	Long Sleeves	N/A
	Electrical Static Discharge	No	Static Control Shirt/Pants	N/A
	Chemical Exposure: Nuisance	Yes	Tyvek Coveralls - Tychem 4000	As Needed
Chemical Exposure: Other	Yes	Tyvek Suit - Tychem 4000	As Needed	

<b>EYE/FACE HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Nuisance Dust	Yes	Safety Glasses with Side-Shield	As Needed
	Impact: Flying Objects/Debris	No	Safety Glasses with Side-Shield	N/A
	Chemical: Irritating Mists	Yes	Safety Glasses with Side-Shield	As Needed
Chemical: Splashing	Yes	Goggles	As Needed	


<b>HAND HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Penetration: Rough Objects	Yes	General Purpose Work Gloves	As Needed
	Penetration: Sharp Objects	Yes	Leather Gloves	As Needed
	Chemicals	Yes	Chemical Resistant Gloves	As Needed
Extreme Cold	Yes	Insulated Gloves	As Needed	


<b>HEAD HAZARD and PROTECTION</b>				
	<b>Hazard</b>		<b>Required Protection</b>	
	Falling Objects	No	Protective Helmet: Class B	N/A
	Low Fixed Objects	No	Protective Helmet: Class C	N/A
Low Hanging Pipe/Beams	No	Protective Helmet: Class C	N/A	





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Other: Customer Requirement	Yes	Protective Helmet: Class C	As Needed
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FOOT HAZARD and PROTECTION				
	Hazard		Required Protection	
	Impact: Heavy Objects	Yes	Steel Toe Safety Shoes	Required
	Compression: Vehicle Roll Over	No	Steel Toes with Metatarsal Shoes	N/A
	Penetration: Sharp Objects	No	Puncture Resistant Shoes	N/A
	Electrical Hazard	No	Electrical Hazard Shoes	N/A
	Explosive Atmosphere	No	Static Dissipative Shoes	N/A
	Penetration: Chemicals	No	Chemical Resistant Boots/Covers	N/A
	Slippery Surfaces	No	Slip-Resistant Soles	N/A
	Exposure to Extreme Cold	Yes	Insulated Boots or Shoes	As Needed

RESPIRATORY HAZARD and PROTECTION				
	Hazard		Required Protection	
	Particulates/Dust	Yes	Dust Mask	N/A
	Chemical: Vapors	Yes	Air-Purifying Respirator	N/A
	Chemical: Gases	No	Powered Air-Purifying Respirator	N/A
Chemical: Specific Chemical	No	Self-Contained Breathing Apparatus	N/A	

PERSONAL PROTECTIVE EQUIPMENT CERTIFICATION		
	I certify that the personal protective equipment hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.	
	Workplace Evaluated:	Enviro-Safe Resource Recovery
	Assessor's Name and Title:	Dawn Zellmer, CEO
	Date of the Assessment:	February 2, 2022

Document No.: <b>EHS-WI-001</b>	Revision Date: <b>2/2/2022</b>	Revision No.: <b>003</b>	
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**APPENDIX B  
SAFETY FOOTWEAR REIMBURSEMENT POLICY AND FORM**

Due to the nature of the operations conducted, designated operation, and transportation (drivers) employees are required to wear safety shoes and therefore, are eligible for reimbursement for safety footwear.


Safety footwear is defined as boots or shoes that conforms to the ASTM F2412-05 or ASTM F2413-05 (previously ANSI Z41-1999) standard and which the employing department requires to be worn while carrying out the duties of the employee's position.

Such reimbursement is subject to the following conditions:

1. Reimbursement for designated operation and transportation (drivers) personnel shall be for the actual cost of the safety footwear plus tax, not to exceed \$90.00 once every 12-months. Reimbursement for non-designated operation employees shall be for the actual cost of the safety footwear plus tax, not to exceed \$90.00 once every 36-months. Shoes damaged at work, other than normal wear and tear, may be replaced in kind at no cost to the employee at the discretion of their manager.
2. If the employee selects safety footwear for which the total cost (including sales tax) exceeds this allowance, the difference must be paid by the employee at the time of purchase. Reimbursement shall be paid within two weeks of approval.
3. Reimbursement will only be authorized for safety footwear that conforms to the ASTM F2412-05 or ASTM F2413-05 standard. The ASTM designation must appear on the shoe tag or the box.
4. Reimbursement shall be authorized and payable after the 90-day orientation period upon the completion of a safety shoes reimbursement form with original receipt attached and returned to the employee's respective manager for approval.

Other employees within the organization may become eligible for reimbursement of safety footwear or be provided with additional monies at the discretion of their manager.

Exception: Visitors (i.e. salesmen, customers, auditors) whose visit is cursory in nature and for a limited period are not required to wear safety footwear provided that the person(s) are not conducting physical work and remains in designated aisles.

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**APPENDIX B  
SAFETY FOOTWEAR REIMBURSEMENT POLICY AND FORM**

This is a request for reimbursement for safety footwear purchased under the safety footwear program.

The **original receipt** for purchase is attached.

Amount to be reimbursed \$ \_\_\_\_\_ (purchase price including tax). Maximum reimbursement amount not-to-exceed \$90.00 (safety footwear plus tax) within the specific approved time period.


I understand reimbursement will be authorized and payable after my 90-day orientation period.

\_\_\_\_\_  
Employee's Name (Printed)

\_\_\_\_\_  
Employee's Signature

\_\_\_\_\_  
Date


\_\_\_\_\_  
Manager's Signature

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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/2/2022</b>	

### APPENDIX C GLOVE SELECTION GUIDE

Below is a summary of the various types of gloves available and their intended use.


Glove Material	Intended Use	Advantages and Disadvantages	Example
Latex (natural rubber)	Incidental Contact	Poor for organic solvents. Little chemical protection. Hard to detect puncture holes. May cause or trigger latex allergies.	
Nitrile	Incidental contact or extended contact (thicker reusable glove).	Excellent general use glove. Good for solvents, oils, greases, and some acids and bases. Clear indication of tears and breaks.	
Butyl Rubber	Extended Contact	Good for ketones and esters. Poor for gasoline and aliphatic, aromatic and halogenated hydrocarbons.	
Neoprene	Extended Contact	Good for acids, bases, alcohols, fuels, peroxides, hydrocarbons, and phenols. Poor for halogenated and aromatic hydrocarbons. Good for most hazardous chemicals.	
Viton	Extended Contact	Good for chlorinated and aromatic solvents. Good resistant to cuts and abrasions. Poor for ketones.	
Kevlar or Leather	Cut-Resistant	Good when moving materials around or working with cardboard, drums, or other containers.	

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**APPENDIX D  
PERSONAL PROTCTIVE EQUIPMENT TRIANING PROTOCOL**

<b>PURPOSE</b>	To ensure employees conducting work are properly protected from the hazards associated with the task being performed or the environment present.
<b>SCOPE</b>	Employees conducting work in areas that have been identified as requiring specific personal protective equipment.
<b>REQUIREMENT</b>	Training is required at the initial time of use. No reoccurring training is required.
<b>EQUIPMENT</b>	<p>Employees shall be knowledgeable in personal protective equipment including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Safety Glasses/Goggles/Face Shields</li> <li>• Safety Shoes</li> <li>• Gloves (Various Types)</li> <li>• Hearing Protection (Various Types)</li> <li>• Tyvek/Tychem Coveralls (Various Types)</li> </ul>
<b>TRAINING MATERIALS</b>	<p>The below materials should be used to meet the training requirements:</p> <ul style="list-style-type: none"> <li>• PPE Training Video</li> <li>• PPE Training Video Quiz</li> </ul>
<b>TRAINING TOPICS</b>	<p>The elements covered within the training program includes:</p> <ul style="list-style-type: none"> <li>• When is personal protective equipment necessary?</li> <li>• The type of personal protective equipment necessary.</li> <li>• The proper use of personal protective equipment.</li> <li>• The limitations of personal protective equipment.</li> <li>• The proper care and maintenance of personal protective equipment.</li> <li>• The proper useful life and disposal of personal protective equipment.</li> </ul>
<b>DOCUMENTATION</b>	Maintain the sign-in sheet and completed quiz as documentation of training and comprehension.
<b>ADDITIONAL COMMENTS</b>	<p>It should be noted that training for dust mask and air-purifying respirators are addressed under separate training. In addition, it has been determined that a hearing conservation program is not required at the organization and therefore, hearing protection is only provided on a voluntary basis for employee use.</p> <p>Situations may occur during non-routine tasks when additional personal protective equipment may be required. These will be addressed on a case-by-case basis.</p>

**Enviro-Safe Resource Recovery**  
**Appendix M-02 - Respiratory Protection Plan**

Document No.: <b>EHS-WI-017</b>	Revision Date: <b>2/1/2022</b>	Revision No.: <b>002</b>	
Document Title: <b>RESPIRATOR PROTECTION - VOLUNTARY USE PLAN</b>			
Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

## **1.0 PURPOSE**

- 1.1 The purpose of this plan is to ensure the protection of employee's health even though it has been determined that respirators including filtering face pieces (dust masks) are not required to be used at the organization.
- 1.2 Engineering controls such as ventilation and substitution for less toxic materials are the first line of defense within the organization. However, when engineering controls are not feasible or do not completely control the identified hazards, respiratory protection maybe required.

## **2.0 SCOPE**

- 2.1 This program applies to all employees who choose to wear a respirator or filtering face piece (dust mask) on a voluntary basis.
- 2.2 Employees participating in the respiratory protection program do so at no cost to them. The expense associated with medical evaluations, training, fit testing and respiratory protection equipment will be borne by the organization.

## **3.0 LEGAL COMPLIANCE**

- 3.1 This program has been prepared in accordance with OSHA 29 CFR 1910.134 governing the use of respirators within the workplace.

## **4.0 DEFINITIONS**


- 4.1 Air-Purifying Respirator. A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
- 4.2 Filtering Facepiece (Dust Mask). A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

## **5.0 ORGANIZATION AND PERSONNEL RESPONSIBILITIES**

- 5.1 Operation Manager. The Operation Manager shall be the designated Program Administrator, along with Technical Service Manager, shall be responsible for implementing and enforcing the respirator protection requirements at the facility. This includes providing the appropriate respiratory protection, ensuring user are medically cleared to use such equipment, ensuring they have been property fit-tested when necessary, and training employees in their use.
- 5.2 Technical Service Manager. The Technical Service Manager, along with Operation Manager, shall be responsible for implementing and enforcing the respirator protection requirements at the facility. This includes providing the appropriate respiratory protection, ensuring user are medically cleared to use such equipment, ensuring they have been property fit-tested when necessary, and training employees in their use.
- 5.3 Employees. Employees are responsible for following the requirements of the respiratory protection program, which include, but are not limited to, wearing their respirator in the manner in which they were trained, care for and maintain their respirators as instructed, and store their respirator appropriately.

## **6.0 VOLUTARY USE OF RESPIRATORS**

- 6.1 Employees who voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation or fit-testing provisions of this program. However, the Dust Mask Voluntary Respirator Training Protocol must be followed which includes the acknowledgement of the Dust Mask Voluntary Use Information.

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6.2 The Program Administrator shall authorize voluntary use of all other respiratory protective equipment, as requested by employee's, on a case-by-case basis. Authorization will depend on specific workplace conditions and the results of the employee's medical evaluation. Voluntary respiratory users are subject to all elements of this Respirator Protection Program.

**6.0 HAZARD EXPOSURE ASSESSMENT**

6.1 A hazard assessment has been conducted and it has been determined that respirators including filtering face pieces (dust masks) are not required for any activities conducted on-site. However, the organization will allow the use of air-purifying respirators and filtering face pieces (dust masks) on a voluntary use basis by employees.

6.2 The hazardous assessment and determination was based upon effective engineering controls established within the workplace, knowledge of the work being performed, chemicals and materials handled, and actual industrial hygiene air monitoring test results. The hazard assessment shall be reviewed when changes become present within the workplace.

**7.0 RESPIRATOR SELECTION PROCEDURE**

7.1 The appropriate air-purifying and filtering face piece (dust mask) to be used by employees shall be selected by organization on a voluntary basis.

7.2 The below listed respirators have been selected for use at the organization:

Respirator	Required or Voluntary	Contaminate	Respirator Selection
Filtering Face Piece (Disposal Dust Mask)	Voluntary	Particulate Matter (Dust)	3M 8271 P95 Particulate
Half-Mask Air-Purifying Respirator	Voluntary	Organic Vapors and Particulate Matter	3M 6000 Series Half-Mask Air-Purifying Respirator with Vapor Organic Cartridge and N95 Filter

7.3 All respirators used shall be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced at any time while it is in use. The respirators and filtering face piece (dust mask) will be made available to employees at no cost.


**8.0 MEDICAL EVALUATION**

8.1 Employees who choose to wear an air-purifying respirator voluntarily must pass a medical evaluation prior to being permitted to wear a respirator while performing work. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

8.2 A licensed physician will provide the medical evaluations. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using a questionnaire compliant with the Respiratory Protection standard. The organization shall provide a copy of this questionnaire to all employees to be completed and routed to the consulting physician. Employees will be permitted to complete the questionnaire on company time.



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- To the extent feasible, the organization shall assist employees who are unable to read the questionnaire (providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for medical evaluation.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the consulting physician.
- All employees will be granted the opportunity to speak with the physician about their medical evaluation, if requested.

8.3 The person scheduling the appointment shall ensure the consulting physician is provided with a copy of the written program, a copy of the respiratory protection standard, identification of hazardous substance exposure, and for each employee requiring evaluation:

- their area or job title,
- proposed respirator type and weight, length of time required to wear respirator,
- expected physical work load (light, moderate, or heavy),
- potential temperature and humidity extremes, and
- any additional protective clothing required.

8.4 After an employee has received clearance and begun to wear their respirator, additional medical evaluations will be provided under the following circumstances:

- Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- The consulting physician or their direct supervisor informs the V.P. of Operations and Compliance that the employee needs to be reevaluated.
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for re-evaluation.
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.


8.5 All examinations and questionnaires are to remain confidential between the employee and the physician. A Medical Clearance Form for each employee will be the only documentation provided to the organization by the consulting physician.

## 9.0 FIT TESTING

9.1 Fit testing is required for employees voluntarily wearing air-purifying respirators.

9.2 Employees who voluntarily wear air-purifying respirators shall be fit tested prior to being allowed to wear any respirator with a tight-fitting face piece and annually thereafter. A new fit test is also required when there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

9.3 Employees shall be fit tested with the make, model, and size of respirator that they will actually wear. Employees will be provided with several models and sizes of respirators so that they may find an optimal fit.

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9.3 The CEO, or their designate, will conduct fit tests following an OSHA or state approved method.

**10.0 RESPIRATOR USE**

10.1 Normal Use. Employees shall use their respirators under conditions specified by this program, and in accordance with the training received on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.

Employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection standard. Employees are not permitted to wear any items that may interfere with the face piece-to face seal.

10.2 Emergency Procedures. No foreseeable emergency conditions that would result in employee exposures to hazardous substances are expected to occur since employees are not allowed to respond to emergencies involving hazardous chemicals. In the event a hazardous substance is involved in an emergency situation, employees are to evacuate the area immediately and call 911. The organization's Emergency Management Plan should be consulted for specific emergency response procedures.

10.3 Respirator Malfunction. For any malfunction of an air purifying respirator, such as vapor breakthrough, face leakage, or improperly working valve, the respirator wearer shall leave the area where the hazard is present immediately. The respirator shall not be used until properly functioning.


10.4 IDLH Procedures. Although respirators provide protection from exposure to air contaminants, employees are prohibited from entering any work area in which conditions exist that are immediately dangerous to life and health, including rescue operations.

**11.0 CLEANING, MAINTENANCE AND CHANGE SCHEDULE AND STORAGE**

11.1 Cleaning. Respirators are to be regularly cleaned and disinfected. Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary, but at least once after each shift.

When cleaning and disinfecting respirators, conduct the following:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face piece and associated parts with mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean, warm water.
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs.
- Air-dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry, plastic bag or other airtight container.

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Note: The Operation Manager shall ensure an adequate supply of appropriate cleaning and disinfecting materials are available for employee's use.

- 11.2 Maintenance. Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use.

No components will be replaced or repairs made beyond those recommended by the manufacturer. Some of the items to check shall include the face piece, head straps, valves, filters, and cartridges.

Employees shall be permitted to leave the work area to maintain their respirator such as to clean their respirator if the respirator is impeding their ability to work or to change filters or cartridges, replace parts, or to inspect the respirator if it stops functioning as intended.


- 11.3 Change Schedules. If a cartridge air-purifying respirator is being used for protection against gases and/or vapors and does not have an End-Of-Service-Life Indicator (ESLI), then a cartridge change schedule must be established. The change schedule must be based on objective information that will ensure that the cartridges are changed before the end of their service life. The data and information relied upon to establish the schedule must be documented.
- 11.4 Storage. Respirators must be stored in a clean, dry area, and in accordance with manufacturer's recommendations. Each employee will clean and inspect their own respirator in accordance with the provisions of this program and will store their respirator in a plastic bag when not in immediate use. Each employee will have their name on the container and that container will only be used to store that employee's respirator.
- 11.5 Defective Respirators  
Respirators that are defective or have defective parts shall be taken out of service immediately and discarded. The employee should contact the Operation Manager or Technical Service Manager to request a new respirator.

## **12.0 TRAINING**

- 12.1 The Operation Manager, or their designate, will provide training to respirator users on the contents of the organization's Respiratory Protection Program, their responsibilities under the program, and on the OSHA Respiratory Protection Standard. Employees will be trained prior to using a respirator in the workplace.
- 12.2 The training shall include the Respiratory Protection Standard, elements of the organization's Respiratory Protection Program, respiratory hazards encountered and their health effects, proper selection and use of respirators, limitations of respirators, respirator donning and user seal checks, fit testing, emergency use procedure, maintenance and storage, and medical signs and symptoms limiting the effective use of a respirator.
- 12.3 Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Training shall be documented.

## **13.0 PROGRAM EVALUATION**

- 13.1 The Operation Manager, or their designate, will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators, site inspections, air monitoring, and/or a review of the records.

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13.2 Problems identified will be documented and a plan established to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

**14.0 DOCUMENTATION AND RECORDKEEPING**

14.1 A written copy of this program and the standard shall be maintained electronically and available to all employees upon request. Employee medical clearance, fit-testing and training records shall be maintained in the in accordance with the records management procedure established within the organization.

**15.0 RELATED DOCUMENTS**


- 15.1 Appendix A - Industrial Air Monitoring Reports
- 15.2 Appendix B - Hazard Exposure Assessment
- 15.2 Appendix C - OSHA Voluntary Use Respirator Information (OSHA 1910.134 Appendix D)
- 15.3 Appendix D - Respirator Protection: Dust Mask Voluntary Use Training Protocol
- 15.4 Appendix E - Respirator Protection: Half-Mask Respirator Training Protocol
- 15.5 Appendix F - Manufacturer Respirator Information

**16.0 REFERENCED DOCUMENTS**

- 16.1 Respiratory Protection Standard (OSHA 1910.134)
- 16.2 Fit Testing Procedure (OSHA 1910.134 Appendix A)
- 16.3 User Seal Check Procedure (OSHA 1910.134 Appendix B-1)
- 16.4 Respiratory Cleaning Procedure (OSHA 1910.134 Appendix B-2)
- 16.5 Medical Evaluation Questionnaire (OSHA 1910.134 Appendix C)
- 16.6 Information for Employees Using Respirators When Not Required Under the Standard (OSHA 1910.134 Appendix D)

**17.0 REVISIONS**

Date	Revision	Revised By
3/28/2016	New Document	D. Zellmer
8/31/2017	Reviewed and updated to include the voluntary use of air-purifying respirators.	D. Zellmer
2/1/2022	Updated to reflect current responsibilities.	D. Zellmer

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**APPENDIX A  
INDUSTRIAL AIR MONITORING REPORTS**

Industrial Air Monitoring Reports are maintained electronically and available upon request from the Operation Manager.

Wisconsin State Laboratory of Hygiene - Wisconsin OSHA  
Consultation Program - November 10, 2015



2015 Industrial  
Monitoring Report -

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**APPENDIX B  
RESPIRATOR HAZARD EXPOSURE ASSESSMENT  
LABORATORY - CHEMISTS AND TECHNICIANS**

The primary risk when working in the laboratory is dealing with hazardous chemicals that come in as samples for analysis. Various characterization tests are performed which may expose those in the room to chemical splashes, projectiles, fires, vapor formation, or other hazards. For this reason, respiratory protection may be required.

**TYPICAL WORK ACTIVITIES:**

<input checked="" type="checkbox"/> Sampling	<input type="checkbox"/> Haz Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Aerosol Can Puncturing
<input type="checkbox"/> Solid Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Elementary Neutralization	<input type="checkbox"/> Haz Waste - Fuel Blending
<input type="checkbox"/> Solid Waste - Labpack Depacking	<input type="checkbox"/> Haz Waste - Labpack Depacking	<input type="checkbox"/> Other

**HAZARDOUS MATERIAL(S) USAGE/EXPOSURE:**

<input type="checkbox"/> Mist	<input type="checkbox"/> Acid Gas Vapors	<input type="checkbox"/> Mercury Vapors
<input checked="" type="checkbox"/> Dust Particulate	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Chlorine Gas
<input type="checkbox"/> Fumes	<input type="checkbox"/> Methylamine	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Organic Vapors	<input type="checkbox"/> Formaldehyde	

**EXPECTED PHYSICAL WORK EFFORT:**

<input type="checkbox"/> Heavy Work	<input type="checkbox"/> Moderate Work	<input checked="" type="checkbox"/> Light Work
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**TEMPERATURE AND HUMIDITY ENCOUNTERED:**

<input type="checkbox"/> Extreme Heat	<input type="checkbox"/> Extreme Cold	<input type="checkbox"/> Light Work
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**HAZARD ENGINEERING CONTROLS:**

<input checked="" type="checkbox"/> Fume Hood	<input type="checkbox"/> Gas Detection System	<input type="checkbox"/> Ventilation System (6-Air Exchanges)
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**RESPIRATOR USE:**

**IH TESTING CONDUCTED:**

<input checked="" type="checkbox"/> Voluntary Use <input type="checkbox"/> Mandatory Use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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**RESPIRATOR TYPE (check all that apply):**

<input checked="" type="checkbox"/> Dust Mask	<input checked="" type="checkbox"/> Full-Face Air Purifying Mask	Other:
<input type="checkbox"/> Half-Mask Air Purifying Mask	<input type="checkbox"/> Air Supplied Respirator	

**RESPIRATOR CARTRIDGES (check all that apply):**


<input checked="" type="checkbox"/> Organic Vapor (Black)	<input type="checkbox"/> Ammonia/Methylamine (Green)	<input type="checkbox"/> Mercury Vapor/Chlorine Gas (Orange)
<input type="checkbox"/> Acid Gases (White)	<input type="checkbox"/> Multi-Gas/Vapor (Olive)	<input type="checkbox"/> Formaldehyde/Organic Vapor
<input type="checkbox"/> Organic Vapor/Acid Gases (Yellow)	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Particulate Filter

**DURATION AND FREQUENCY OF RESPIRATOR USE:**

<input type="checkbox"/> Full Shift (4-8 hours/day)	<input type="checkbox"/> Moderate Use (1-4 hours/day)	<input type="checkbox"/> Low Use (<1 hour/day)
<input type="checkbox"/> High Use (daily or weekly)	<input checked="" type="checkbox"/> Moderate Use (monthly)	<input type="checkbox"/> Infrequent use (less than monthly)

**CERTIFICATION**

I certify that the respiratory protection hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.			
Name:	Dawn Zellmer	Date:	March 31, 2022

Document No.: <b>EHS-WI-017</b>	Revision Date: <b>2/1/2022</b>	Revision No.: <b>002</b>	
Document Title: <b>RESPIRATOR PROTECTION - VOLUNTARY USE PLAN</b>			
Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

**APPENDIX B  
RESPIRATOR HAZARD EXPOSURE ASSESSMENT  
OPERATOR - RECEIVING**

The primary risk when conducting receiving operations is the exposure to chemical splashes, vapors, dust, and other hazards while conducting sampling and other receiving activities. For this reason, respiratory protection may be required.

**TYPICAL WORK ACTIVITIES:**

<input checked="" type="checkbox"/> Sampling	<input type="checkbox"/> Haz Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Aerosol Can Puncturing
<input type="checkbox"/> Solid Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Elementary Neutralization	<input type="checkbox"/> Haz Waste - Fuel Blending
<input type="checkbox"/> Solid Waste - Labpack Depacking	<input type="checkbox"/> Haz Waste - Labpack Depacking	<input type="checkbox"/> Other

**HAZARDOUS MATERIAL(S) USAGE/EXPOSURE:**

<input type="checkbox"/> Mist	<input type="checkbox"/> Acid Gas Vapors	<input type="checkbox"/> Mercury Vapors
<input checked="" type="checkbox"/> Dust Particulate	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Chlorine Gas
<input type="checkbox"/> Fumes	<input type="checkbox"/> Methylamine	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Organic Vapors	<input type="checkbox"/> Formaldehyde	

**EXPECTED PHYSICAL WORK EFFORT:**

<input type="checkbox"/> Heavy Work	<input type="checkbox"/> Moderate Work	<input checked="" type="checkbox"/> Light Work
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**TEMPERATURE AND HUMIDITY ENCOUNTERED:**

<input type="checkbox"/> Extreme Heat	<input type="checkbox"/> Extreme Cold	<input type="checkbox"/> Light Work
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**HAZARD ENGINEERING CONTROLS:**

<input type="checkbox"/> Fume Hood	<input type="checkbox"/> Gas Detection System	<input type="checkbox"/> Ventilation System (6-Air Exchanges)
------------------------------------	---	---

**RESPIRATOR USE:**

**IH TESTING CONDUCTED:**

<input checked="" type="checkbox"/> Voluntary Use <input type="checkbox"/> Mandatory Use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

**RESPIRATOR TYPE (check all that apply):**

<input checked="" type="checkbox"/> Dust Mask	<input checked="" type="checkbox"/> Full-Face Air Purifying Mask	Other:
<input type="checkbox"/> Half-Mask Air Purifying Mask	<input type="checkbox"/> Air Supplied Respirator	

**RESPIRATOR CARTRIDGES (check all that apply):**


<input checked="" type="checkbox"/> Organic Vapor (Black)	<input type="checkbox"/> Ammonia/Methylamine (Green)	<input type="checkbox"/> Mercury Vapor/Chlorine Gas (Orange)
<input type="checkbox"/> Acid Gases (White)	<input type="checkbox"/> Multi-Gas/Vapor (Olive)	<input type="checkbox"/> Formaldehyde/Organic Vapor
<input type="checkbox"/> Organic Vapor/Acid Gases (Yellow)	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Particulate Filter

**DURATION AND FREQUENCY OF RESPIRATOR USE:**

<input type="checkbox"/> Full Shift (4-8 hours/day)	<input type="checkbox"/> Moderate Use (1-4 hours/day)	<input type="checkbox"/> Low Use (<1 hour/day)
<input type="checkbox"/> High Use (daily or weekly)	<input checked="" type="checkbox"/> Moderate Use (monthly)	<input type="checkbox"/> Infrequent use (less than monthly)

**CERTIFICATION**

I certify that the respiratory protection hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.			
Name:	Dawn Zellmer	Date:	March 31, 2022

Document No.: <b>EHS-WI-017</b>	Revision Date: <b>2/1/2022</b>	Revision No.: <b>002</b>	
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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

**APPENDIX B  
RESPIRATOR HAZARD EXPOSURE ASSESSMENT  
OPERATOR - SOLID WASTE**

The primary risk when working with solid waste during consolidation, bulking and lab pack/depacking operations is the exposure to dust particulate and potentially odorous waste. For this reason, respiratory protection may be required.

**TYPICAL WORK ACTIVITIES:**

<input checked="" type="checkbox"/> Sampling	<input type="checkbox"/> Haz Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Aerosol Can Puncturing
<input checked="" type="checkbox"/> Solid Waste - Consolidation/Bulking	<input type="checkbox"/> Haz Waste - Elementary Neutralization	<input type="checkbox"/> Haz Waste - Fuel Blending
<input checked="" type="checkbox"/> Solid Waste - Labpack Depacking	<input type="checkbox"/> Haz Waste - Labpack Depacking	<input type="checkbox"/> Other

**HAZARDOUS MATERIAL(S) USAGE/EXPOSURE:**

<input type="checkbox"/> Mist	<input type="checkbox"/> Acid Gas Vapors	<input type="checkbox"/> Mercury Vapors
<input checked="" type="checkbox"/> Dust Particulate	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Chlorine Gas
<input type="checkbox"/> Fumes	<input type="checkbox"/> Methylamine	<input type="checkbox"/> Other
<input type="checkbox"/> Organic Vapors	<input type="checkbox"/> Formaldehyde	

**EXPECTED PHYSICAL WORK EFFORT:**

<input type="checkbox"/> Heavy Work	<input checked="" type="checkbox"/> Moderate Work	<input type="checkbox"/> Light Work
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**TEMPERATURE AND HUMIDITY ENCOUNTERED:**

<input type="checkbox"/> Extreme Heat	<input type="checkbox"/> Extreme Cold	<input type="checkbox"/> Light Work
---------------------------------------	---------------------------------------	-------------------------------------

**HAZARD ENGINEERING CONTROLS:**

<input type="checkbox"/> Fume Hood	<input type="checkbox"/> Gas Detection System	<input type="checkbox"/> Ventilation System (6-Air Exchanges)
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**RESPIRATOR USE:**

**IH TESTING CONDUCTED:**

<input checked="" type="checkbox"/> Voluntary Use <input type="checkbox"/> Mandatory Use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

**RESPIRATOR TYPE (check all that apply):**

<input checked="" type="checkbox"/> Dust Mask	<input checked="" type="checkbox"/> Full-Face Air Purifying Mask	Other:
<input type="checkbox"/> Half-Mask Air Purifying Mask	<input type="checkbox"/> Air Supplied Respirator	

**RESPIRATOR CARTRIDGES (check all that apply):**

<input type="checkbox"/> Organic Vapor (Black)	<input type="checkbox"/> Ammonia/Methylamine (Green)	<input type="checkbox"/> Mercury Vapor/Chlorine Gas (Orange)
<input type="checkbox"/> Acid Gases (White)	<input type="checkbox"/> Multi-Gas/Vapor (Olive)	<input type="checkbox"/> Formaldehyde/Organic Vapor
<input type="checkbox"/> Organic Vapor/Acid Gases (Yellow)	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Particulate Filter


**DURATION AND FREQUENCY OF RESPIRATOR USE:**

<input type="checkbox"/> Full Shift (4-8 hours/day)	<input type="checkbox"/> Moderate Use (1-4 hours/day)	<input type="checkbox"/> Low Use (<1 hour/day)
<input type="checkbox"/> High Use (daily or weekly)	<input checked="" type="checkbox"/> Moderate Use (monthly)	<input type="checkbox"/> Infrequent use (less than monthly)

**CERTIFICATION**

I certify that the respiratory protection hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.			
Name:	Dawn Zellmer	Date:	March 31, 2022



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**APPENDIX B  
RESPIRATOR HAZARD EXPOSURE ASSESSMENT  
OPERATOR – HAZARDOUS WASTE**

The primary risk when working with hazardous waste during consolidation, bulking, lab pack/depacking, elementary neutralization and aerosol can puncturing operations is the exposure to chemical splashes, vapors, dust, and other hazards. For this reason, respiratory protection may be required.

**TYPICAL WORK ACTIVITIES:**

<input checked="" type="checkbox"/> Sampling	<input checked="" type="checkbox"/> Haz Waste - Consolidation/Bulking	<input checked="" type="checkbox"/> Haz Waste - Aerosol Can Puncturing
<input type="checkbox"/> Solid Waste - Consolidation/Bulking	<input checked="" type="checkbox"/> Haz Waste - Elementary Neutralization	<input checked="" type="checkbox"/> Haz Waste - Fuel Blending
<input type="checkbox"/> Solid Waste - Labpack Depacking	<input checked="" type="checkbox"/> Haz Waste - Labpack Depacking	<input type="checkbox"/> Other

**HAZARDOUS MATERIAL(S) USAGE/EXPOSURE:**

<input type="checkbox"/> Mist	<input checked="" type="checkbox"/> Acid Gas Vapors	<input type="checkbox"/> Mercury Vapors
<input checked="" type="checkbox"/> Dust Particulate	<input checked="" type="checkbox"/> Ammonia	<input type="checkbox"/> Chlorine Gas
<input type="checkbox"/> Fumes	<input type="checkbox"/> Methylamine	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Organic Vapors	<input type="checkbox"/> Formaldehyde	

**EXPECTED PHYSICAL WORK EFFORT:**

<input type="checkbox"/> Heavy Work	<input checked="" type="checkbox"/> Moderate Work	<input type="checkbox"/> Light Work
-------------------------------------	---	-------------------------------------

**TEMPERATURE AND HUMIDITY ENCOUNTERED:**

<input type="checkbox"/> Extreme Heat	<input type="checkbox"/> Extreme Cold	<input type="checkbox"/> Light Work
---------------------------------------	---------------------------------------	-------------------------------------

**HAZARD ENGINEERING CONTROLS:**

<input type="checkbox"/> Fume Hood	<input checked="" type="checkbox"/> Gas Detection System	<input checked="" type="checkbox"/> Ventilation System (6-Air Exchanges)
------------------------------------	--	--

**RESPIRATOR USE:**

**IH TESTING CONDUCTED:**

<input checked="" type="checkbox"/> Voluntary Use <input type="checkbox"/> Mandatory Use	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--	---

**RESPIRATOR TYPE (check all that apply):**

<input checked="" type="checkbox"/> Dust Mask	<input checked="" type="checkbox"/> Full-Face Air Purifying Mask	Other:
<input type="checkbox"/> Half-Mask Air Purifying Mask	<input type="checkbox"/> Air Supplied Respirator	

**RESPIRATOR CARTRIDGES (check all that apply):**


<input checked="" type="checkbox"/> Organic Vapor (Black)	<input type="checkbox"/> Ammonia/Methylamine (Green)	<input type="checkbox"/> Mercury Vapor/Chlorine Gas (Orange)
<input checked="" type="checkbox"/> Acid Gases (White)	<input type="checkbox"/> Multi-Gas/Vapor (Olive)	<input type="checkbox"/> Formaldehyde/Organic Vapor
<input checked="" type="checkbox"/> Organic Vapor/Acid Gases (Yellow)	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Particulate Filter

**DURATION AND FREQUENCY OF RESPIRATOR USE:**

<input type="checkbox"/> Full Shift (4-8 hours/day)	<input type="checkbox"/> Moderate Use (1-4 hours/day)	<input type="checkbox"/> Low Use (<1 hour/day)
<input type="checkbox"/> High Use (daily or weekly)	<input checked="" type="checkbox"/> Moderate Use (monthly)	<input type="checkbox"/> Infrequent use (less than monthly)

**CERTIFICATION**

I certify that the respiratory protection hazard assessment has been performed to the best of my knowledge and ability based upon the hazards present at the time the assessment was performed.			
Name:	Dawn Zellmer	Date:	March 31, 2022

Document No.: <b>EHS-WI-017</b>	Revision Date: <b>2/1/2022</b>	Revision No.: <b>002</b>	
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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

**APPENDIX C  
OSHA VOLUNTARY USE RESPIRATOR INFORMATION**

**Mandatory Information for Employees Using Respirators When Not Required  
Under the Standard**

**To the employee:**

The following information is being provided, as required under the Respiratory Standard, for the voluntary use of respirators for protection against airborne contaminants. Employees using respirators on a voluntary basis are required to comply with the information provided within.

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.


You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

\_\_\_\_\_  
Name


\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

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Document Title: <b>RESPIRATOR PROTECTION - VOLUNTARY USE PLAN</b>			
Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	


**APPENDIX D  
RESPIRATOR PROTECTION: DUST MASK VOLUNTARY USE PROTOCOL**

<b>PURPOSE</b>	To ensure employees using dust masks on a voluntary basis are knowledgeable in their use, fit, storage and maintenance, as well as, limitations.
<b>SCOPE</b>	Exposure assessment, dust masks are used at the facility on a volunteer basis for protection against nuisance particles such as dust and debris at the discretion and upon the request of the employees.
<b>REQUIREMENT</b>	Training is required at the initial time of use. No reoccurring training is required.
<b>EQUIPMENT</b>	Employees that are wear dust masks on a voluntary basis shall be issued the following equipment: <ul style="list-style-type: none"> <li>• 3M 8271 P95 Particulate</li> <li>• Dust Mask Storage Bag/Container</li> </ul>
<b>TRAINING MATERIALS</b>	The below materials should be used to meet the training requirements: <ul style="list-style-type: none"> <li>• Respirator Protection: Dust Mask Training Video</li> <li>• Respirator Protection: Dust Mask Training Video Quiz</li> <li>• Respirator Protection: Dust Mask Voluntary Use Acknowledgement</li> <li>• Respirator Protection: Wear It Right Handout</li> </ul>
<b>TRAINING TOPICS</b>	The elements covered within the training program includes: <ul style="list-style-type: none"> <li>• Why these guidelines are vital to your safety.</li> <li>• Your respiratory system.</li> <li>• Respiratory hazard.</li> <li>• Respirator selection, fit and inspection.</li> <li>• Respirator care, maintenance and storage.</li> </ul>
<b>DOCUMENTATION</b>	Maintain the completed quiz and dust mask voluntary use acknowledgement form as documentation of training and comprehension.
<b>ADDITIONAL COMMENTS</b>	When an employee uses a respirator protection dust masks used on a voluntary basis, a medical evaluation and formal fit testing is not required.

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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

**APPENDIX E  
RESPIRATOR PROTECTION - HALF MASK RESPIRATOR PROTOCOL**

- PURPOSE** To ensure employees using half-mask air-purifying respirators on a voluntary or mandatory basis are medically fit to wear the personal protective equipment, are equipped with a proper fitting respirator, and are knowledgeable in their use, fit, storage and maintenance.
- SCOPE** Based upon air monitoring data performed, half-mask air-purifying respirators with organic vapor and particulate filter cartridges are required when conducting paint spraying operations within the designated spray booths.
- REQUIREMENT** A medical evaluation is required prior to the use of a respirator and conduct thereafter based upon the recommendation of the treating physician (which is typically one year in duration). Fit testing and training is required at the initial time of use **AND** annually thereafter.
- EQUIPMENT** Employees that are required to conduct paint spraying operations within designated spray booths shall be issued the following equipment:
- 3M 6000 Series Half-Mask Air-Purifying Respirator
  - Organic Vapor Cartridge (Black) with N95 Filter
  - Respirator Storage Bag/Container
- MEDICAL EVALUATION** Prior to wearing respirator, employees must first be medically evaluated to determine under what conditions they can safely wear respirators using the mandatory questionnaire or an equivalent method. An appointment should be scheduled at:
- Concentra Medical Clinic  
5500 W. Brown Deer Road, Suite 400  
Milwaukee, WI 53223  
Phone: (414) 355-4300
- Prior to the scheduled appointment, the employee should be provided and complete the **Concentra Respirator Medical Evaluation Form**.
- After the scheduled medical evaluation appointment, a determination will be provided stating if the employee is medically fit to wear a respirators and under what conditions. In addition, the next re-evaluation date will be established by the medical provider.
- RESPIRATOR FIT TEST** Prior to wearing a half-mask air-purifying respirator, a mask-to-face seal needs to be verified annually with a qualitative fit test procedure to determine whether the mask provides an acceptable fit to the employee.
- Fit testing will not be conducted on employees with facial hair that passes between the respirator seal and the face or interferes with valve function. Such facial hair includes stubble, beards and long sideburns.
- The fit testing shall be documented on the Fit Testing Record Form.

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**TRAINING MATERIALS**

The below materials should be used to meet the training requirements:

- Respirator Protection: Air-Purifying Training Video
- Respirator Protection: Air-Purifying Training Video Quiz
- OSHA General Respirator Protection Guidance Handout

**TRAINING TOPICS**

The elements covered within the training program includes:


- Why these guidelines are vital to your safety.
- Your respiratory system.
- Respiratory hazards and why it is necessary.
- Medical evaluations and recognized medical signs and symptoms related to respirator use.
- Respirator limitations and capabilities.
- Respirator selection, inspection, put on and remove, use and seal check.
- Respirator care, maintenance and storage.
- General requirements of the standard.

**DOCUMENTATION**

Maintain the medical clearance, fit testing confirmation, and completed quiz as documentation of compliance and training comprehension.



**ADDITIONAL COMMENTS**



Temporary employees who will conduct activities on-site that require the voluntary or mandatory use of a half-mask air-purifying respirator must comply with these requirements, as well.

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Certified By: <b>CEO/OPERATION MANAGER</b>		Certified Date: <b>2/1/2022</b>	

**APPENDIX F  
MANUFACTURER RESPIRATOR INFORMATION and CHANGE SCHEDULE**

Below is information provided by the manufacturer for the use of the respirators being used within the organization, which includes a change-out schedule.

Respirator	Required or Voluntary	Respirator Selection	Manufacture Information
Filtering Face Piece (Disposal Dust Mask)	Voluntary	3M 8271 P95 Particulate	 Dust Mask Information.pdf
Full-Mask Air-Purifying Respirator	Voluntary	3M 6000 Series Half-Mask Air-Purifying Respirator with Vapor Organic Cartridge and N95 Filter	 Full Face Mask Information.pdf

Respirator	Required or Voluntary	Respirator Selection	Change Form
Filtering Face Piece (Disposal Dust Mask)	Voluntary	3M 8271 P95 Particulate	 Dust Mask Change Schedule.pdf
Full-Mask Air-Purifying Respirator	Voluntary	3M 6000 Series Half-Mask Air-Purifying Respirator with Vapor Organic Cartridge and N95 Filter	 Full-Mask Respirator Change S

**APPENDIX N: APPENDIX INTENTIONALLY LEFT BLANK**

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APPENDIX O: CERTIFICATE OF INSURANCE





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

7/29/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b>		<b>CONTACT NAME:</b> Deborah Madsen	
R & R Insurance Services Inc		<b>PHONE (A/C, No, Ext):</b> (262)574-7000	<b>FAX (A/C, No):</b> (262)574-7080
N14 W23900 Stone Ridge Dr		<b>E-MAIL ADDRESS:</b> Debbie.Madsen@rrins.com	
Waukesha WI 53188		<b>INSURER(S) AFFORDING COVERAGE</b>	
		<b>INSURER A:</b> Starr Surplus Lines Insurance Company	<b>NAIC #</b> 13604
		<b>INSURER B:</b> Starr Indemnity & Liability Company	38318
		<b>INSURER C:</b> Encova Insurance	13331
		<b>INSURER D:</b>	
		<b>INSURER E:</b>	
		<b>INSURER F:</b>	

**COVERAGES** **CERTIFICATE NUMBER:** CL2272931199 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY			1000067544221 CG2010 12-19 (AI Ongoing) CG2037 12-19 (AI-Comp Ops) SL 023 06-11 (PNC & WOS)	7/31/2022	7/31/2023	EACH OCCURRENCE	\$ 1,000,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 50,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						MED EXP (Any one person)	\$ 5,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PERSONAL & ADV INJURY	\$ 1,000,000
	OTHER:						GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
B	<b>AUTOMOBILE LIABILITY</b>			1000638046221 SICA-1017 09-19 (AI/PNC) SICA-1020 09-19 (WOS)	7/31/2022	7/31/2023	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person)	\$
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per accident)	\$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident)	\$
								\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR		1000337735221 SL 100 10-08 (AI/PNC/WOS)	7/31/2022	7/31/2023	EACH OCCURRENCE	\$ 5,000,000
	<input type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE					AGGREGATE	\$ 5,000,000
	DED	RETENTION \$	0					\$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>			WCB1036286	7/31/2022	7/31/2023	<input checked="" type="checkbox"/> PER STATUTE	<input type="checkbox"/> OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N	N/A				E.L. EACH ACCIDENT	\$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
A	Professional Liability			1000067544221	7/31/2022	7/31/2023	Each Wrongful Act	1,000,000
A	Transportation Pollution			1000067544221	7/31/2022	7/31/2023	Each Pollution Condition	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
Dawn Zellmer-Vilione & Jeffrey Vilione are Excluded from Workers Compensation Coverage

**CERTIFICATE HOLDER****CANCELLATION**

For Information Only	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE  Daniel Scheider/DM586

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## Additional Named Insureds

### Other Named Insureds

Enviro Safe Transportation LLC

JDV Real Estate Holdings LLC

**APPENDIX P: INCOMPATIBLE, REACTIVE AND IGNITABLE SEGREGATION AND  
COMPATIBILITY CHARTS**

P-01 DOT Hazardous Material Load and Segregation Chart

P-02 Storage Compatibility Chart

**Enviro-Safe Resource Recovery**  
**Appendix P-01 – DOT Hazardous Material Load and Segregation Chart**

# HAZARDOUS MATERIALS LOAD AND SEGREGATION CHART

CLASS	PLACARDS	CLASS OR DIVISION	PLACARD WEIGHT	NOTES	1.1		1.3		1.4		1.5		1.6		2.1		2.2		2.3 GAS		2.3 GAS		3		4.1		4.2		4.3		5.1		5.2		6.1 LIQUIDS PG I ZONE A		7		8 LIQUIDS	
					1.2	1.3	1.4	1.5	1.6	2.1	2.2	ZONE A	ZONE B	3	4.1	4.2	4.3	5.1	5.2	7	8																			
CLASS 1		1.1	ANY QUANTITY	A	*	*	*	*	*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		1.2			*	*	*	*	*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		1.3	ANY QUANTITY		*	*	*	*	*	X					X	X	X								X	X	X	X	X	X	X	X	X	X			X			
		1.4	1,001 lbs.		*	*	*	*	*	O						O	O	O								O								O			O			
		1.5	1,001 lbs.	A	*	*	*	*	*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
		1.6	1,001 lbs.		*	*	*	*	*																															
CLASS 2		2.1	1,001 lbs.		X	X	O	X							X	O																		O	O					
		2.2	1,001 lbs.	B	X			X																																
		2.3	ANY QUANTITY		X	X	O	X		X										X	X	X	X	X	X											X				
		2.3	ANY QUANTITY		X	X	O	X		O										O	O	O	O	O	O											O				
CLASS 3		3	1,001 lbs.		X	X	O	X							X	O																			X					
CLASS 4		4.1	1,001 lbs.		X			X							X	O																			X	O				
		4.2	1,001 lbs.		X	X	O	X							X	O																			X	X				
		4.3	ANY QUANTITY		X	X		X							X	O																			X	O				
CLASS 5		5.1	1,001 lbs.	A	X	X		X							X	O	O																	X	O					
		5.2	1,001 lbs.	F	X	X		X							X	O																		X	O					
CLASS 6		6.1	ANY QUANTITY	E H	X	X	O	X		O									X	X	X	X	X	X												X				
CLASS 7		7	ANY QUANTITY (yellow III label)		X			X		O																														
CLASS 8		8	1,001 lbs.		X	X	O	X							X	O									O	X	O	O	O	O	O	O	O	X						

**§177.848(e) INSTRUCTIONS FOR USING THE SEGREGATION TABLE FOR HAZARDOUS MATERIALS ARE AS FOLLOWS:**

CLASS 3	COMBUSTIBLE LIQUIDS		IN BULK	C G	(1) The absence of any hazard class or division or a blank space in the Table indicates that no restrictions apply. (2) The letter "X" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation.
CLASS 6	OTHER THAN POISONOUS LIQUIDS PG I ZONE A	  	1,001 lbs.	E H	(3) The letter "O" in the Table indicates that these materials may not be loaded, transported, or stored together in the same transport vehicle or storage facility during the course of transportation unless separated in a manner that, in the event of leakage from packages under conditions normally incident to transportation, commingling of hazardous materials would not occur. Notwithstanding the methods of separation employed, Class 8 (corrosive) liquids may not be loaded above or adjacent to Class 4 (flammable) or Class 5 (oxidizing) materials; except that shippers may load truckload shipments of such materials together when it is known that the mixture of contents would not cause a fire or a dangerous evolution of heat or gas. (4) The "*" in the Table indicates that segregation among different Class 1 (explosive) materials is governed by the compatibility table in paragraph (f) of this section.
CLASS 9	MISCELLANEOUS		1,001 lbs.	C D	(5) The note "A" in the third column of the Table means that, notwithstanding the requirements of the letter "X", ammonium nitrate (UN 1942) and ammonium nitrate fertilizer may be loaded or stored with Division 1.1 (explosive) or Division 1.5 materials. (6) When the §172.101 Table or §172.402 of this subchapter requires a package to bear a subsidiary hazard label, segregation appropriate to the subsidiary hazard must be applied when that segregation is more restrictive than that required by the primary hazard. However, hazardous materials of the same class may be stowed together without regard to segregation required for any secondary hazard if the materials are not capable of reacting dangerously with each other and causing combustion or dangerous evolution of heat, evolution of flammable, poisonous, or asphyxiant gases, or formation of corrosive or unstable materials.

**NOTES**

**§177.848(c) ADDITIONAL SEGREGATION REQUIREMENTS**

<p>A. See instructions §177.848(e)(5).</p> <p>B. For domestic transportation of oxygen, compressed or oxygen, refrigerated liquid, the oxygen placard may be used in place of NON-FLAMMABLE GAS placard (§172.504(f)(7)).</p> <p>C. No applicable segregation restrictions in §177.848.</p> <p>D. For domestic transportation, a Class 9 placard is not required. A bulk packaging containing a Class 9 material must be marked with the identification number displayed on a Class 9 placard, or an orange panel, or a white square-on-point display configuration (§172.504(f)(9)).</p> <p>E. Packages with POISON or POISON INHALATION HAZARD labels, or a POISON label displaying "PG III," or "PG III" marked next to a POISON label may not be transported with foodstuffs, feed or any other edible material, intended for humans or animals. For exceptions see §177.841(e).</p> <p>F. Placard any quantity of a 5.2, ORGANIC PEROXIDE, TYPE B, LIQUID OR SOLID, TEMPERATURE CONTROLLED.</p> <p>G. No placard is required for combustible liquids in non-bulk packages (119 gal. or less).</p> <p>H. See §177.848(c) for restrictions.</p>	<p>In addition to the provisions of paragraph (d) of this section and except as provided in §173.12(e) of this subchapter, cyanides, cyanide mixtures or solutions may not be stored, loaded and transported with acids if a mixture of the materials would generate hydrogen cyanide; Division 4.2 materials may not be stored, loaded and transported with Class 8 liquids; and Division 6.1 Packing Group 1, Hazard Zone A material may not be stored, loaded and transported with Class 3 material, Class 8 liquids, and Division 4.1, 4.2, 4.3, 5.1 or 5.2 materials.</p> <p>See §173.12(e) for segregation exceptions for waste materials.</p>
--	--

# HAZARDOUS MATERIALS LOAD AND SEGREGATION CHART

## COMPATIBILITY TABLE FOR CLASS 1 (EXPLOSIVE) MATERIALS

COMPATIBILITY GROUP	A	B	C	D	E	F	G	H	J	K	L	N	S
A		X	X	X	X	X	X	X	X	X	X	X	X
B	X		X	X <sup>(4)</sup>	X	X	X	X	X	X	X	X	4/5
C	X	X		2	2	X	6	X	X	X	X	3	4/5
D	X	X <sup>(4)</sup>	2		2	X	6	X	X	X	X	3	4/5
E	X	X	2	2		X	6	X	X	X	X	3	4/5
F	X	X	X	X	X		X	X	X	X	X	X	4/5
G	X	X	6	6	6	X		X	X	X	X	X	4/5
H	X	X	X	X	X	X	X		X	X	X	X	4/5
J	X	X	X	X	X	X	X	X		X	X	X	4/5
K	X	X	X	X	X	X	X	X	X		X	X	4/5
L	X	X	X	X	X	X	X	X	X	X		1	X
N	X	X	3	3	3	X	X	X	X	X	X		4/5
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5	

## CLASS 1 EXPLOSIVE PLACARDS

DIVISIONS  
1.1, 1.2 & 1.3



The Division number and compatibility group are printed in black ink where the \* is shown. Placard any quantity of Division 1.1, 1.2 or 1.3 material.

\* Division Numbers and Compatibility Group

1.1A	1.2B	1.2L
1.1B	1.2C	1.3C
1.1C	1.2D	1.3F
1.1D	1.2E	1.3G
1.1E	1.2F	1.3H
1.1F	1.2G	1.3J
1.1G	1.2H	1.3K
1.1J	1.2J	1.3L
1.1L	1.2K	

DIVISION 1.4



The compatibility group is printed in black ink, where the \* is shown. Placard 454 kg. (1,001 lbs.) or more of 1.4 Explosives.

\* Compatibility Group

B  
C  
D  
E  
F  
G  
S

DIVISION 1.5



The compatibility group is D. Placard 454 kg. (1,001 lbs.) or more of 1.5 Blasting Agents.

DIVISION 1.6



The compatibility group is N. Placard 454 kg. (1,001 lbs.) or more of 1.6 Explosives.

### §177.848

(g) Instructions for using the compatibility table for Class 1 (explosive) materials are as follows:

(1) A blank space in the Table indicates that no restrictions apply.

(2) The letter "X" in the Table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.

(3) The numbers in the Table mean the following:

(i) "1" means an explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.

(ii) "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.

(iii) "3" means any combination of explosives from compatibility groups C, D, or E with those in compatibility group N is assigned to compatibility group D.

(iv) "4" means 'see §177.835(g)' when transporting detonators.

(v) "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (explosive) materials.

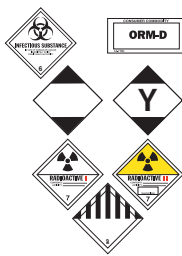
(vi) "6" means explosive articles in compatibility group G, other than fireworks and those requiring special handling, may be loaded, transported and stored with other explosive articles of compatibility groups C, D and E, provided that explosive substances (such as those not contained in articles) are not carried in the same transport vehicle.

(h) Except as provided in paragraph (i) of this section, explosives of the same compatibility group but of different divisions may be transported together provided that the whole shipment is transported as though its entire contents were of the lower numerical division (i.e., Division 1.1 being lower than Division 1.2). For example, a mixed shipment of Division 1.2 (explosive) materials and Division 1.4 (explosive) materials, both of compatibility group D, must be transported as Division 1.2 (explosive) materials.

(i) When Division 1.5 materials, compatibility group D, are transported in the same freight container as Division 1.2 (explosive) materials, compatibility group D, the shipment must be transported as Division 1.1 (explosive) materials, compatibility group D.

### PLACARDS NOT REQUIRED FOR:

1. Infectious substances (Division 6.2).
2. Combustible liquids in non-bulk packagings.
3. ORM-D materials.
4. Limited quantities identified on shipping papers or marked per §172.315.
5. Radioactive (Class 7) I or II labels.
6. Small quantities per §173.4.
7. Excepted quantities per §173.4a.
8. Class 9 materials in domestic transport.
9. Materials prepared per §173.13.



### DANGEROUS PLACARD FOR MIXED LOADS

A freight container, unit load device, transport vehicle, or rail car which contains non-bulk packages with two or more categories of hazardous materials that require different placards, as specified in Table 2, may be placarded with a DANGEROUS placard instead of the separate placarding specified for each of the materials in Table 2. However, when 1,000 kg (2,205 pounds) aggregate gross weight or more of one category of material is loaded therein at one loading facility on a freight container, unit load device, transport vehicle, or rail car, the placard specified in Table 2 for that category must be applied.

- Division 1.4  
Division 1.5  
Division 1.6  
Division 2.1  
Division 2.2  
Class 3  
Combustible liquid  
Division 4.1



- Division 4.2  
Division 5.1  
Division 5.2, other than Type B, liquid or solid, temperature controlled  
Division 6.1, other than material poisonous by inhalation  
Class 8  
Class 9

### §172.504(g) COMPATIBILITY GROUP LETTER

For shipments of Class 1 (explosive materials) by aircraft or vessel, the applicable compatibility group letter must be displayed on the placards, or labels when applicable, required by this section. When more than one compatibility group placard is required for Class 1 materials, only one placard is required to be displayed, as provided in paragraphs (g)(1) through (g)(4) of this section. For the purposes of paragraphs (g)(1) through (g)(4), there is a distinction between the phrases *explosive articles* and *explosive substances*. *Explosive article* means an article containing an explosive substance; examples include a detonator, flare, primer or fuse. *Explosive substance* means a substance contained in a packaging that is not contained in an article; examples include black powder and smokeless powder.

- (1) Explosive articles of compatibility groups C, D or E may be placarded displaying compatibility group E.
- (2) Explosive articles of compatibility groups C, D, or E, when transported with those in compatibility group N, may be placarded displaying compatibility group D.
- (3) Explosive substances of compatibility groups C and D may be placarded displaying compatibility group D.
- (4) Explosive articles of compatibility groups C, D, E or G, except for fireworks, may be placarded displaying compatibility group E.



### §172.505 PLACARDING FOR SUBSIDIARY HAZARDS



(a) Each transport vehicle, freight container, portable tank, unit load device, or rail car that contains a poisonous material subject to the "Poison Inhalation Hazard" shipping description of §172.203(m) must be placarded with a POISON INHALATION HAZARD or POISON GAS placard, as appropriate, on each side and each end, in addition to any other placard required for that material in §172.504. Duplication of the POISON INHALATION HAZARD or POISON GAS placard is not required.

(b) In addition to the RADIOACTIVE placard which may be required by §172.504(e) of this subpart, each transport vehicle, portable tank or freight container that contains 454 kg (1,001 pounds) or more gross weight of non-fissile, fissile-excepted, or fissile uranium hexafluoride must be placarded with a CORROSIVE placard on each side and each end.

(c) Each transport vehicle, portable tank, freight container or unit load device that contains a material which has a subsidiary hazard of being dangerous when wet, as defined in §173.124 of this subchapter, shall be placarded with DANGEROUS WHEN WET placards, on each side and each end, in addition to the placards required by §172.504.

(d) Hazardous materials that possess secondary hazards may exhibit subsidiary placards that correspond to the placards described in this part, even when not required by this part (see also §172.519(b)(4) of this subpart).

**Enviro-Safe Resource Recovery**  
**Appendix P-02 - Storage Compatibility Chart**

## STORAGE COMPATIBILITY CHART









The below segregation chart was created based upon the DOT Hazardous Material Load and Segregation Chart (49 CFR 177.878) and includes only the applicable DOT classes of containers that will be accepted and stored at the facility. The Storage Locations listed on the chart below are depicted on Container Storage Map [G-08].

A = Indicates containers of either of these two materials are acceptable to be stored within the same designated storage location area (indicated below) with no restrictions.







O = Indicates containers of either of these two materials are acceptable to be stored within the same designated storage location area (indicated below) provided they are stored on separate containment pallets so in the event of leakage from the containers no commingling of hazardous materials would not occur. Class 8 (corrosive) liquids may not be stored above or adjacent Class 5 (oxidizing) materials.

X = Indicates containers of these two materials may not be stored in the same designated storage location area (indicated below).

L = Indicates containers of the DOT class on the left side of the table is only received in lab packs and therefore, the DOT storage segregation requirements (49 CFR 173.12(e)) will be followed. See special lab pack requirements below.

DOT Class	DOT Label(s)	Storage Location Area	2.1	2.2	2.3 Zone A	2.3 Zone B	3	4.1	4.2	4.3	5.1	5.2	6.1	8	9
2.1	Flammable Gases 	RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A
2.2	Non-Toxic Non-Flammable Gases  	RM125-4	A	A	X	X	A	A	A	A	X	X	X	X	A
2.3	Poisonous Gas Zone B 	RM125-2	L	L	L	L	L	L	L	L	L	L	X	L	L
3	Flammable Liquids 	RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A
4.1	Flammable Solids 	RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A
4.2	Spontaneously Combustible 	RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A
4.3	Dangerous When Wet Materials 	RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A



5.1	Oxidizers		RM125-3	X	X	X	X	X	X	X	X	X	A	A	X	O	X
5.2	Organic Peroxides	 	RM125-3	X	X	X	X	X	X	X	X	X	A	A	X	O	X
6.1	Poisonous Liquids PG I Zone A		RM125-2	A	A	A	A	A	A	L	A	L	L	A	L	A	
8	Corrosive Liquids		RM125-1	X	X	X	X	X	X	X	X	X	O	O	X	A	X
9	Environmentally Hazard		RM125-4 or RM 126	A	A	X	X	A	A	A	A	X	X	X	X	A	

**1. Special Requirements for Storage of Lab Packs**

Lab Pack Segregation Requirements. DOT Hazardous Material Load and Segregation Chart (49 CFR 177.878) segregation requirements are not applicable to waste lab packs provided the incompatible materials are separated by a minimum of 4 feet and the containers are stored on containment pallets. However, additional lab pack requirements are applicable, as stated below.

**2. Waste Cyanides and Waste Acids.** For cyanide (pure) lab pack stored with acids, the cyanide (pure) lab pack may not exceed 4.4 pounds per inner containers and the outer container may not exceed 22 pounds. For cyanide mixture lab pack stored with acids, the cyanide mixture may not exceed 0.6 gallons per inner containers and the outer container may not exceed 3 gallons. When stored with cyanide (pure) or cyanide (mixture), the acid must be packed as a lab pack or in a single packaging not to exceed 55-gallon capacity.

**3. Spontaneous Combustibles (4.2) Lab Pack.** For spontaneous combustibles lab pack stored with corrosive liquids (8), the spontaneous combustible lab pack may not exceed 4.4 pounds per inner containers and the outer container may not exceed 22 pounds. The corrosive liquid must be packed as a lab pack or in a single packaging not to exceed 55-gallon capacity.

**4. Poisonous Liquids PG I Zone A (6.1) Lab Pack.** For Poisonous Liquid PGI Zone lab pack being stored, they must be packaged in accordance with 49 CFR 173.226(c) and overpacked in a UN standard steel or plastic drum meeting Packaging Group I. If stored with corrosive liquids (8), the corrosive liquid must be a lab pack or in a single packaging not to exceed 55-gallon capacity. If stored with spontaneously combustible (4.2), the spontaneous combustible must be a lab pack may not exceed 4.4 pounds inner containers and the outer container may not exceed 22 pounds. If stored with oxidizer (5.1), the oxidizer lab pack may not exceed 4.4 pound per inner containers and the outer container may not exceed 22 pounds. The total oxidizers being stored in the lab pack area may not exceed 220 pounds. If stored with organic peroxide (5.2), the organic peroxide must be a lab pack not exceed 2.2 pounds inner container and the outer container may not exceed 11 pounds. If stored with organic peroxide Type B, the organic peroxide Type B must be a lab pack not exceeding 1.1 pound per inner containers and the outer container may not exceed 5.5 pounds. The total organic peroxide – Type B being stored in the lab pack area may not exceed 110 pounds.

**5. Corrosive Liquids (8).** Acids and bases should not be stored together on the same containment pallet or in the same row.

**APPENDIX Q: ENDANGERED SPECIES REVIEW**



**State of Wisconsin / DEPARTMENT OF NATURAL RESOURCES**

Tony Evers, Governor  
Preston D. Cole, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711

101 S. Webster St.  
Box 7921  
Madison, WI 53707-7921

February 29, 2020

Dawn Zellmer  
Enviro-Safe Consulting, LLC  
W130 N10500 Washington Drive  
Germantown, WI 53002

SUBJECT: Endangered Resources Review (ERR Log # 20-124)

Proposed WDNR Hazardous Waste License, Ozaukee, Washington County, WI (T09N R21E S30, T09N R20E S25)

Dear Dawn Zellmer,

The Bureau of Natural Heritage Conservation has reviewed the proposed project described in the Endangered Resources (ER) Review Request received February 21, 2020. The complete ER Review for this proposed project is attached and follow-up actions are summarized below:

Required Actions: 0 species

Recommended Actions: 1 species

No Follow-Up Actions: 2 species

Additional Recommendations Specified: Yes

This ER Review may contain Natural Heritage Inventory data (<http://dnr.wi.gov/topic/NHI>), including specific locations of endangered resources, which are considered sensitive and are not subject to Wisconsin's Open Records Law. Information contained in this ER Review may be shared with individuals who need this information in order to carry out specific roles in the planning, permitting, and implementation of the proposed project. **Specific locations of endangered resources may not be released or reproduced in any publicly disseminated documents.**

The attached ER Review is for informational purposes and only addresses endangered resources issues. **This ER Review does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.**

Please contact me at 608-264-8968 or via email at [anna.rossler@wi.gov](mailto:anna.rossler@wi.gov) if you have any questions about this ER Review.

Sincerely,

*Anna Rossler*

Endangered Resources Review Program

cc: Douglas Coenen

**Endangered Resources Review for the Proposed WDNR Hazardous Waste License, Ozaukee, Washington County  
(ER Log # 20-124)**

**Section A. Location and brief description of the proposed project**

Based on information provided by the ER Review Request form and attached materials, the proposed project consists of the following:

<b>Location</b>	Ozaukee, Washington County - T09N R21E S30, T09N R20E S25
<b>Project Description</b>	The project is the addition onto an existing building on the current 5.61 acre property. the current building imprint is approximately 11,700 sq ft and the addition will add approximately 28,589 sq ft. The building currently resides in the Village of Germantown Industrial Park.
<b>Project Timing</b>	5/1/2020- 12/31/2020
<b>Current Habitat</b>	Currently located in the Village of Germantown Industrial Park. The property is 100% zoned industrial use. Aerial photos show open and wooded areas with wetlands and potential intermittent streams.
<b>Impacts to Wetlands or Waterbodies</b>	Wetlands and intermittent stream on property
<b>Property Type</b>	Private
<b>Federal Nexus</b>	No

*It is best to request ER Reviews early in the project planning process. However, some important project details may not be known at that time. Details related to project location, design, and timing of disturbance are important for determining both the endangered resources that may be impacted by the project and any necessary follow-up actions. Please contact the ER Review Program whenever the project plans change, new details become available, or more than a year has passed to confirm if results of this ER Review are still valid.*

**Section B. Endangered resources recorded from within the project area and surrounding area**

	<b>Group</b>	<b>State Status</b>	<b>Federal Status</b>
██████████ ██████████	Bird~	SC/M	
██████████ ██████████	Frog~	████	
██████████	Other~	SC	

*For additional information on the rare species, high-quality natural communities, and other endangered resources listed above, please visit our Biodiversity (<http://dnr.wi.gov/topic/EndangeredResources/biodiversity.html>) page. For further definitions of state and federal statuses (END=Endangered, THR=Threatened, SC=Special Concern), please refer to the Natural Heritage Inventory (NHI) Working List (<http://dnr.wi.gov/topic/nhi/Wlist.html>).*

**Section C. Follow-up actions**

**Actions that need to be taken to comply with state and/or federal endangered species laws:** None

**Actions recommended to help conserve Wisconsin's Endangered Resources:**

- ██████████ - Bird~

**State Status:** SC/M

<b>Impact Type</b>	Impact possible
--------------------	-----------------

<b>Recommended Measures</b>	Time of year restriction
<b>Description of Recommended Measures</b>	Suitable habitat may be present at the project site. While not required, it is recommended to avoid disturbance within 300 feet of all suitable habitat during the nesting season (15 May - 15 August) to avoid impacts to the species. [REDACTED] [REDACTED] [REDACTED]

Remember that although these actions are not required by state or federal endangered species laws, they may be required by other laws, permits, granting programs, or policies of this or another agency. Examples include the federal Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, State Natural Areas law, DNR Chapter 30 Wetland and Waterway permits, DNR Stormwater permits, and Forest Certification.

**Additional Recommendations**

The project site is located near wetlands and intermittent streams and we strongly recommend implementing erosion and runoff prevention measures during the course of the project.

Please note that erosion control netting (also known as erosion control blankets, erosion mats or erosion mesh netting) used to prevent erosion during the establishment of vegetation can have detrimental effects on local snake and other wildlife populations. Plastic netting without independent movement of strands can easily entrap snakes moving through the area, leading to dehydration, desiccation, and eventually mortality. Netting that contains biodegradable thread with the "leno" or "gauze" weave (contains strands that are able to move independently) appears to have the least impact on snakes and should be used in areas adjacent to or near any waterbody.

If erosion matting will be used for this project, use the following matting (or something similar): American Excelsior "FibreNet" or "NetFree" products; East Coast Erosion biodegradable jute products; Erosion Tech biodegradable jute products; ErosionControlBlanket.com biodegradable leno weave products; North American Green S75BN, S150BN, SC150BN or C125BN; or Western Excelsior "All Natural" products.

**No actions are required or recommended for the following endangered resources:**

- [REDACTED] - Frog~

**State Status:** [REDACTED]

<b>Impact Type</b>	No impact or no/low broad ITP/A
<b>Reason</b>	Other - Justification Required
<b>Justification</b>	Suitable habitat may be present at the project site. However, the [REDACTED] frog has been in decline over the past several decades throughout most of Wisconsin. Per the [REDACTED], we do not believe [REDACTED] frogs are still present in this area, and the project does not need to be altered to avoid impacts to this species.  However, if [REDACTED] frogs are observed on site during the course of the project, please contact the Endangered Resources Review Program (608-266-5241) immediately.  [REDACTED] [REDACTED] [REDACTED]

- [REDACTED] - Other~

**State Status:** SC

<b>Impact Type</b>	No impact or no/low broad ITP/A
<b>Reason</b>	Lack of Suitable Habitat within Project Boundary
<b>Justification</b>	The known [REDACTED] is not within or adjacent to the project site. No impacts are anticipated.  [REDACTED]

**Section D. Next Steps**

1. Evaluate whether the 'Location and brief description of the proposed project' is still accurate. All recommendations in this ER Review are based

on the information supplied in the ER Review Request. If the proposed project has changed or more than a year has passed and you would like your letter renewed, please contact the ER Review Program to determine if the information in this ER Review is still valid.

2. Determine whether the project can incorporate and implement the **'Follow-up actions'** identified above:

- 'Actions that need to be taken to comply with state and/or federal endangered species laws' represent the Department's best available guidance for complying with state and federal endangered species laws based on the project information that you provided and the endangered resources information and data available to us. If the proposed project has not changed from the description that you provided us and you are able to implement all of the 'Actions that need to be taken to comply with state and/or federal endangered species laws', your project should comply with state and federal endangered species laws. Please remember that if a violation occurs, the person responsible for the taking is the liable party. Generally this is the landowner or project proponent. For questions or concerns about individual responsibilities related to Wisconsin's Endangered Species Law, please contact the ER Review Program.
- If the project is unable to incorporate and implement one or more of the 'Actions that need to be taken to comply with state and/or federal endangered species laws' identified above, the project may potentially violate one or more of these laws. Please contact the ER Review Program immediately to assist in identifying potential options that may allow the project to proceed in compliance with state and federal endangered species laws.
- 'Actions recommended to help conserve Wisconsin's Endangered Resources' may be required by another law, a policy of this or another Department, agency or program; or as part of another permitting, approval or granting process. Please make sure to carefully read all permits and approvals for the project to determine whether these or other measures may be required. Even if these actions are not required by another program or entity for the proposed project to proceed, the Department strongly encourages the implementation of these conservation measures on a voluntary basis to help prevent future listings and protect Wisconsin's biodiversity for future generations.

3. No federally-protected species or habitats are involved.

## Section E. Standard Information to help you better understand this ER Review

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**Endangered Resources (ER) Reviews** are conducted according to the protocols in the guidance document *Conducting Proposed Endangered Resources Reviews: A Step-by-Step Guide for Wisconsin DNR Staff*.

**How endangered resources searches are conducted for the proposed project area:** An endangered resources search is performed as part of all ER Reviews. A search consists of querying the Wisconsin Natural Heritage Inventory (NHI) database for endangered resources records for the proposed project area. The project area evaluated consists of both the specific project site and a buffer area surrounding the site. A 1 mile buffer is considered for terrestrial and wetland species, and a 2 mile buffer for aquatic species. Endangered resources records from the buffer area are considered because most lands and waters in the state, especially private lands, have not been surveyed. Considering records from the entire project area (also sometimes referred to as the search area) provides the best picture of species and communities that may be present on your specific site if suitable habitat for those species or communities is present.

**Categories of endangered resources considered in ER Reviews and protections for each:** Endangered resources records from the NHI database fall into one of the following categories:

- Federally-protected species include those federally listed as Endangered or Threatened and Designated Critical Habitats. Federally-protected animals are protected on all lands; federally-protected plants are protected only on federal lands and in the course of projects that include federal funding (see Federal Endangered Species Act of 1973 as amended).
- Animals (vertebrate and invertebrate) listed as Endangered or Threatened in Wisconsin are protected by Wisconsin's Endangered Species Law on all lands and waters of the state (s. 29.604, Wis. Stats.).
- Plants listed as Endangered or Threatened in Wisconsin are protected by Wisconsin's Endangered Species Law on public lands and on land that the person does not own or lease, except in the course of forestry, agriculture, utility, or bulk sampling actions (s. 29.604, Wis. Stats.).
- Special Concern species, high-quality examples of natural communities (sometimes called High Conservation Value areas), and natural features (e.g., caves and animal aggregation sites) are also included in the NHI database. These endangered resources are not legally protected by state or federal endangered species laws. However, other laws, policies (e.g., related to Forest Certification), or granting/permitting processes may require or strongly encourage protection of these resources. The main purpose of the Special Concern classification is to focus attention on species about which some problem of abundance or distribution is suspected before they become endangered or threatened.
- State Natural Areas (SNAs) are also included in the NHI database. SNAs protect outstanding examples of Wisconsin's native

landscape of natural communities, significant geological formations, and archeological sites. Endangered species are often found within SNAs. SNAs are protected by law from any use that is inconsistent with or injurious to their natural values (s. 23.28, Wis. Stats.).

**Please remember** the following:

1. This ER Review is provided as information to comply with state and federal endangered species laws. By following the protocols and methodologies described above, the best information currently available about endangered resources that may be present in the proposed project area has been provided. However, the NHI database is not all inclusive; systematic surveys of most public lands have not been conducted, and the majority of private lands have not been surveyed. As a result, NHI data for the project area may be incomplete. Occurrences of endangered resources are only in the NHI database if the site has been previously surveyed for that species or group during the appropriate season, and an observation was reported to and entered into the NHI database. As such, absence of a record in the NHI database for a specific area should not be used to infer that no endangered resources are present in that area. Similarly, the presence of one species does not imply that surveys have been conducted for other species. Evaluations of the possible presence of rare species on the project site should always be based on whether suitable habitat exists on site for that species.
2. This ER Review provides an assessment of endangered resources that may be impacted by the project and measures that can be taken to avoid negatively impacting those resources based on the information that has been provided to ER Review Program at this time. Incomplete information, changes in the project, or subsequent survey results may affect our assessment and indicate the need for additional or different measures to avoid impacts to endangered resources.
3. This ER Review does not exempt the project from actions that may be required by Department permits or approvals for the project. Information contained in this ER Review may be shared with individuals who need this information in order to carry out specific roles in the planning, permitting, and implementation of the proposed project.

## Dawn Zellmer

---

**From:** White, Angela L - DNR <AngelaL.White@wisconsin.gov>  
**Sent:** Monday, February 24, 2020 8:11 AM  
**To:** Dawn Zellmer  
**Cc:** Rossler, Anna C - DNR  
**Subject:** ER Review Request

Dear Dawn:

On 2/21/20, the Bureau of Natural Heritage Conservation received your request for an Endangered Resources Review for the proposed WDNR Hazardous Waste License project in Washington County, WI.

Our response to you will entail a letter listing any rare species, high-quality natural communities, and other significant natural resources that have been found at or near the proposed project area. The review will also detail any specific measures required for the project to be in compliance with Wisconsin Endangered Species Laws, as well as recommendations to further enhance potential conservation measures.

We recommend that you include a copy of this review letter with any applications for permits or formal approvals for the project that you submit to other DNR programs.

Your project has been assigned an ERR Log # 20-124. Please reference this log number in any correspondence or inquiries to us regarding this project.

Please contact me with any questions.

Angela

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### Angela White

ER Certification Program Coordinator  
Bureau of Natural Heritage Conservation  
Wisconsin Department of Natural Resources  
Phone: 608-266-5241  
AngelaL.White@Wisconsin.gov



[dnr.wi.gov](http://dnr.wi.gov)





**Notice:** Pursuant to s. 23.27(3)(b), Wis. Stats., this form must be completed and submitted to the Department of Natural Resources (DNR) to request an Endangered Resources (ER) Review of proposed development, management, planning or similar type of project. An ER Review provides the requester with information from Wisconsin's Natural Heritage Inventory (NHI) database and other sources on rare plants and animals, high quality natural communities, and other endangered resources that may be impacted by the proposed project. The ER Review will also include specific recommendations and requirements to help projects comply with Wisconsin's Endangered Species Law (s. 29.604, Wis. Stats.) and other laws and regulations protecting endangered resources. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.).

**Instructions:** The following materials are required to process this request. Submit all materials by mail to the address above or email (DNRERReview@wisconsin.gov). Do not include payment with this form.

- Completed, signed form
- Map(s) delineating the project area, preferably an aerial photo

Submission of the following materials are strongly encouraged and will facilitate review of your project:

- [NHI Public Portal Preliminary Assessment Printout](#)
- Photographs that clearly show the project area, including natural features and vegetation present on site
- Additional relevant information and reports (e.g., detailed project and habitat descriptions, wetland delineation, and site plans)

**Section 1: Requester Information (ER Review, correspondence and invoice will be sent to this person)**

Name		Organization	
Enviro-Safe Consulting, LLC. (dBa Enviro-Safe Resource Recove			
Mailing Address		City	State   ZIP Code
W130 N10500 Washington Drive		Germantown	WI   53022
Telephone Number		Email Address	
(262) 790-2500		dzellmer@enviro-safe.com	

**Section 2: Landowner Information (if different than Section 1)**

Name		Organization	
JDV Real Estate			
Mailing Address		City	State   ZIP Code
W130 N10500 Washington Drive		Germantown	WI   53022
Telephone Number		Email Address	
(262) 790-2500		dzellmer@enviro-safe.com	

**Section 3: Project Information**

Project Name	Project Address (if applicable)
WDNR Hazardous Waste License	W130 N10500 Washington Drive, Germantown, WI 53022

Project Types:

Residential   
  Commercial   
  Industrial   
  Utility/Energy   
  Transportation (roads, railroads, trails, harbors, airports)  
 NRCS   
  Other: \_\_\_\_\_

PSC Approval (Utility/Energy only)	DOT or FHWA Administered
<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown

Start Date (on-site disturbance)	End Date (on-site disturbance)	Federal Land, Funding or Permit
5/1/2020	12/31/2020	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown

County	<input type="radio"/> City <input type="radio"/> Town <input checked="" type="radio"/> Village of:	Land Types (Select all that apply)
Washington	Germantown	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Public (e.g. road ROWs, schools, city/county land, etc.)

Township	Range	Direction	Section	Additional Comments on TRS Location (attach additional information if necessary)
09	N 20	<input checked="" type="radio"/> E <input type="radio"/> W	25	
	N	<input type="radio"/> E <input type="radio"/> W		

# Endangered Resources Review Request

Form 1700-047 (R 12/17)

Page 2 of 2

## Section 3: Project Information, *continued*

Provide a detailed description of the proposed project and associated disturbance, including acres to be disturbed. Attach additional pages as needed.

The project is the addition onto an existing building on the current 5.61 acre property (244,196 sq. ft.). The current building imprint is approximately 11,700 sq. ft. and the addition will add approximately 28,589 sq. ft. The building current resides in the Village of Germantown Industrial Park.

Provide a detailed description of the habitat types and current land use within the limits of the project area (e.g., 50% in active agriculture-currently corn, 20% floodplain forest, 15% industrial area, 10% hardwood swamp dominated by black ash, 5% fallow field - in active agriculture until one year ago). Attach additional pages as needed.

Currently located in the Village of Germantown Industrial Park. The property is 100% zoned industrial use.

List all wetlands and waterbodies (e.g., rivers, intermittent streams, lakes, marshes) within or adjacent to the project area. List any known or suspected impacts of the proposed project to these wetlands and waterbodies. Indicate the location(s) of any point source discharge(s) into wetlands or waterbodies.

See attached report.

List any reports or correspondence concerning endangered resources or habitat that may be impacted by the proposed project (e.g., wetland delineation, endangered resources reviews, habitat assessments, and rare species surveys). Attach copies if available.

None

## Section 4: Related Permits, Licenses or Regulatory Approvals (DNR or other state/federal agency)


Permit, License or Approval	Permitting Agency Contact Person	Status
Hazardous Waste TSD License	Douglas Coenen Phone: (608) 264-9258	<input checked="" type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received
		<input type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received

## Section 5: Terms and Conditions

The requested ER Review may contain NHI data and information (including specific locations of endangered resources) which are considered sensitive and are not subject to Wisconsin's Open Records Law (per s. 23.27, Wis. Stats.). The information contained in the ER Review is solely for planning and implementation of the proposed project. As such, the information contained in the ER Review shall only be shared with individuals who need this information to carry out specific roles in the planning, permitting, and implementation of the proposed project. The requester must agree to not reproduce or disseminate the ER Review or the specific locations of endangered resources contained in the ER Review to any other parties or individuals without prior written permission from the DNR Bureau of Natural Heritage Conservation. (Contact the Endangered Resources Review Program at 608-267-0862 if you have any questions about sharing information contained in the ER Review.)

## Section 6: Certification by Requester

I agree to pay, within 30 days of receipt of an invoice, the \$75/hour fee charged by the Department per s. NR 29.04(1), Wis. Adm. Code, for this ER review. I am the owner, authorized representative of the owner, or utility representative of the property for which I am requesting an Endangered Resources (ER) Review. I accept the terms and conditions outlined in Section 5 (above). To the best of my knowledge, the information I have provided is complete and accurate.

  
Signature of Requester

2/17/2020  
Date Signed

Dawn Zellmer  
Printed Name



WIDNR - Natural Heritage Inventory (NHI) Public Portal

Results

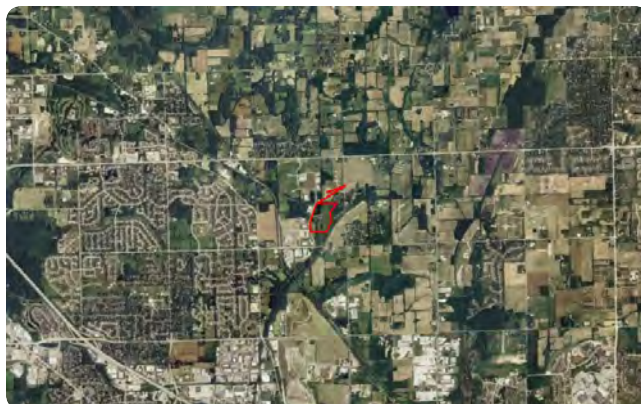
A search was conducted of the NHI Portal within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area. Based on these search results, below are your follow-up actions.

**Further actions are required to ensure compliance** with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). One or more of the following situations apply:

- The species recorded are state or federal threatened or endangered animals.
- The project site overlaps the Karner Blue Butterfly High Potential Range.
- The project overlaps the Rusty Patched Bumble Bee High Potential Zone.
- The species recorded are state threatened or endangered plants on public land.
- The species recorded are federal threatened or endangered plants on federal land or involve federal funds or a federal permit.

Therefore you should request an Endangered Resources Review <https://dnr.wi.gov/topic/ERReview/Review.html> (<https://dnr.wi.gov/topic/ERReview/Review.html>). An ER Review is the mechanism to ensure compliance with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). The ER Review will list the endangered resources that have been recorded within the vicinity of the project area and follow-up actions may be necessary.

*A copy of this document can be kept on file and submitted with any other necessary DNR permit applications to show that the need for an ER Review has been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.*



The information shown on these maps has been obtained from various sources, and is of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. Users of these maps should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/> (<http://dnr.wi.gov/legal/>).

Print/Save Results (print)

Start over (start)

The information shown on these maps has been obtained from various sources, and is of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. Users of these maps should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/> (<http://dnr.wi.gov/legal/>).



## Endangered Resources Preliminary Assessment

Created on **12/17/2019**. This report is good for one year after the created date.

### Results

A search was conducted of the NHI Portal within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area. Based on these search results, below are your follow-up actions.

**Further actions are required to ensure compliance** with Wisconsin’s Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). One or more of the following situations apply:

- The species recorded are state or federal threatened or endangered animals.
- The project site overlaps the Karner Blue Butterfly High Potential Range.
- The project overlaps the Rusty Patched Bumble Bee High Potential Zone.
- The species recorded are state threatened or endangered plants on public land.
- The species recorded are federal threatened or endangered plants on federal land or involve federal funds or a federal permit.

Therefore you should request an Endangered Resources Review <https://dnr.wi.gov/topic/ERReview/Review.html>. An ER Review is the mechanism to ensure compliance with Wisconsin’s Endangered Species Law (s. 29.604 Wis. Stats.) and the Federal Endangered Species Act (16 USC ss 1531-43). The ER Review will list the endangered resources that have been recorded within the vicinity of the project area and follow-up actions may be necessary.

*A copy of this document can be kept on file and submitted with any other necessary DNR permit applications to show that the need for an ER Review has been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.*

### Project Information

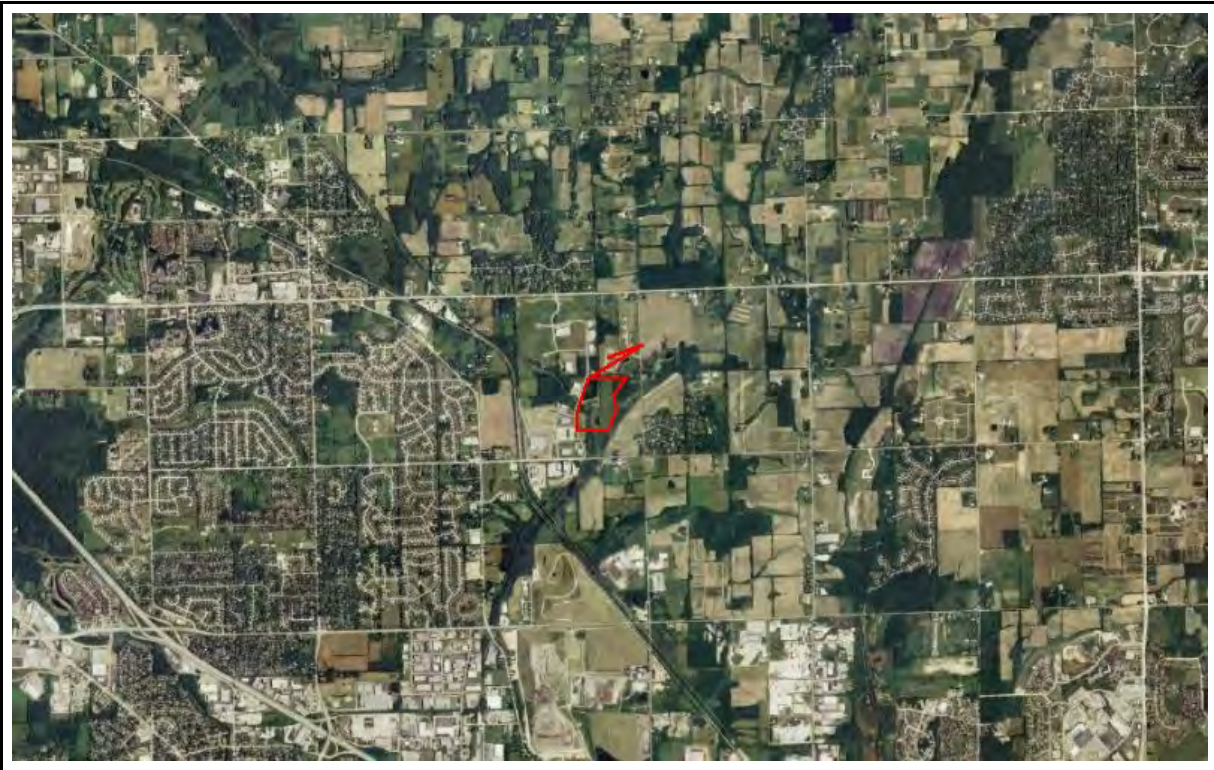
Landowner name	<b>JDV Real Estate</b>
Project address	<b>W130 N10500 Washington Drive, Germantown, WI 53022</b>
Project description	<b>Submittal for a WDNR Hazardous Waste License at the existing property location. Includes an addition to the existing building.</b>

### Project Questions

Does the project involve a public property?	<b>No</b>
Is there any federal involvement with the project?	<b>No</b>
Is the project a utility, agricultural, forestry or bulk sampling (associated with mining) project?	<b>No</b>
Is the project property in Managed Forest Law or Managed Forest Tax Law?	<b>No</b>
Project involves tree removal?	<b>Yes</b>
Does project have urban/residential habitat?	<b>No</b>

Does project have manicured lawn?	Yes
Does project have artificial/paved surface?	Yes
Does project involve agricultural land?	No
Does project have areas covered in crushed stone or gravel?	No
Is project near (within 300 ft) a waterbody or a shoreline?	Yes
Is project within a waterbody or along the shoreline?	Yes





The information shown on these maps has been obtained from various sources, and is of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. Users of these maps should confirm the ownership of land through other means in order to avoid trespassing. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>.

<https://dnrx.wisconsin.gov/nhiportal/public>

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921

**APPENDIX R: WETLAND DELINEATION REPORT (STANTEC - SEPT-2018) AND  
VILLAGE OF GERMANTOWN ARTIFICIAL WETLAND DETERMINATION LETTER**

R-01 Wetland Delineation Report (Stantec - Sept-2018)

R-02 Village of Germantown Artificial Wetland Determination (Jun-2020)

**Enviro-Safe Resource Recovery**  
**Appendix R-01 - Wetland Delineation Report**



**Dawn Zellmer**

---

**From:** Microsoft Outlook  
**To:** calvin.lawrence@wisconsin.gov  
**Sent:** Monday, May 3, 2021 10:22 AM  
**Subject:** Relayed: Enviro-Safe - Wetland Delineation Report -

**Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:**

[calvin.lawrence@wisconsin.gov](mailto:calvin.lawrence@wisconsin.gov) ([calvin.lawrence@wisconsin.gov](mailto:calvin.lawrence@wisconsin.gov))

Subject: Enviro-Safe - Wetland Delineation Report -

**Dawn Zellmer**

---

**From:** Microsoft Outlook  
**To:** Gunderson-Inden, Kristen  
**Sent:** Monday, May 3, 2021 10:22 AM  
**Subject:** Relayed: Enviro-Safe - Wetland Delineation Report -

**Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:**

[Gunderson-Inden, Kristen \(Kristen.Gunderson-Inden@stantec.com\)](mailto:Kristen.Gunderson-Inden@stantec.com)

Subject: Enviro-Safe - Wetland Delineation Report -

## Dawn Zellmer

---

**From:** Dawn Zellmer  
**Sent:** Monday, May 3, 2021 10:22 AM  
**To:** calvin.lawrence@wisconsin.gov  
**Cc:** Gunderson-Inden, Kristen  
**Subject:** Enviro-Safe - Wetland Delineation Report -  
**Attachments:** Attachment N - Wetland Delineation Report.pdf; 193706367\_wetlands.zip

Hi Calvin,

In September-2018 a Wetland Delineation Report was completed by Stantec Consulting Services on the behalf of Enviro-Safe located in Germantown, Wisconsin (report attached).

In the response of receipt of this report by the WDNR in the letter dated November 21, 2018, the WDNR requested that the department be supplied with a polygon shapefile of the wetland boundaries delineated with the project area (attached). Neither Enviro-Safe or Stantec could find confirmation that this information was submitted as required under Chapter 23.321 and therefore, it is being sent again at this time. If you previously received this information, please disregard. However, if you have not we apologize for this oversight and hope this fulfills the requirement at this time.

If you have any questions, please do not hesitate to contact me at any time.

Thank-you.

**Dawn Zellmer**  
CEO/Operations  
**Enviro-Safe Resource Recovery**  
**Enviro-Safe Consulting, LLC.**  
W130 N10500 Washington Drive  
Germantown, WI 53022

T: (262) 790-2500  
F: (262) 790-2560  
C: (262) 613-2542

[enviro-safe.com](http://enviro-safe.com)



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November 21, 2018

WIC-SE-2018-67-03412

Enviro-Safe Consulting, LLC  
Attention: Jeff Vilione  
W130 N10500 Washington Drive  
Germantown, WI 53022

RE: Wetland Delineation Confirmation for 5.59 Acre Property located in the SW1/4 of the SE1/4 of Section 25, Township 09 North, Range 20 East, Village of Germantown, Washington County

Dear Mr. Vilione:

We have reviewed the wetland delineation report from Stantec Consulting Services, Inc. prepared for the above-mentioned site. This letter will serve as confirmation that the wetland boundaries as shown on the enclosed wetland delineation figure are acceptable. This finding is based upon a 10/17/2018 field visit by the Department's Wetland Identification Specialist, Neil Molstad. Any filling or grading within these areas may require DNR approvals. Our wetland confirmation is valid for five years. Be sure to send a copy of the report, as well as any approved revisions, to the U.S. Army Corps of Engineers.

In order to comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate what system the data are projected to. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756, or [calvin.lawrence@wisconsin.gov](mailto:calvin.lawrence@wisconsin.gov)).

If you are planning development on the property, you are required to avoid take of endangered and threatened species, or obtain an incidental take authorization, to comply with the state's Endangered Species Law. To insure compliance with the law, you should submit an endangered resources review form (Form 1700-047), available at <https://dnr.wi.gov/topic/ERReview/Review.html>. The Endangered Resources Program will provide a review response letter identifying any endangered and threatened species and any conditions that must be followed to address potential incidental take.

In addition to contacting WDNR, be sure to contact your local zoning office and U.S. Army Corps of Engineers to determine if any local or federal permits may be required for your project.

If you have any questions, please contact me at (715) 839-1638 or email [Travis.Holte@wisconsin.gov](mailto:Travis.Holte@wisconsin.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Travis Holte', written over a horizontal line.

Travis Holte  
Wetland Identification Specialist

Enclosure: Wetland Delineation Figure

CC (via email):

April Marcangeli, Project Manager, U.S. Army Corps of Engineers  
Jeffrey Retzlaff, Village of Germantown  
Michelle Scott, DNR Water Management Specialist  
Brian Lennie, Stantec Consulting Services, Inc.





- Legend**
- Approximate Project Boundary
  - 2ft Elevation Contour
  - Sample Point
  - Field Delineated Wetland
  - ~ DNR 24k Hydrography
  - ~ Perennial Stream
  - - - Intermittent Stream
  - Waterbody

Figure No. **5**  
 Title **Field Collected Data**

---

Client/Project  
 Enviro-Safe Consulting, LLC.  
 5.6 Acre Parcel Wetland Delineation

---

Project Location 193706347  
 T9N, R20E, S25, Prepared by MEH on 2018-09-07  
 V. of Germantown, Technical Review by AS on 2018-09-10  
 Washington Co., WI Independent Review by BSL on 2018-09-21

**Notes**

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WisDOT, WDNR
3. Orthophotography: 2017 NAIP

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0 100 200 Feet  
 1:2,400 (at original document size of 8.5x11)

**Stantec**

Page 1 of 1



September 28, 2018

WIC-SE-2018-67-03412

Enviro-Safe Consulting, LLC  
Jeff Vilione  
W130 N10500 Washington Drive  
Germantown, WI 53022

Dear Mr. Vilione:

This acknowledges receipt of your request for a Wetland Delineation Confirmation for a project area located in the Village of Germantown in Washington County. The property in question is located in the SW1/4 of the SE1/4 of Section 25, Township 09 North, Range 20 East.

Our field staff are currently reviewing your request, and we will be contacting you for permission to access the above mentioned property in the near future to perform a field evaluation.

If you would like to know more about this project or would like to see the application and plans, please visit the Department's permit tracking website at <https://permits.dnr.wi.gov/water/SitePages/Permit%20Search.aspx> and search for WP-WDC-SE-2018-67-X09-21T14-16-05.

If you have any questions, please contact your local Wetland Identification Specialist, Neil Molstad at (608) 261-6430 or email [Neil.Molstad@wisconsin.gov](mailto:Neil.Molstad@wisconsin.gov).

Sincerely,

A handwritten signature in cursive script that reads 'Evan Hunsader'.

Evan Hunsader  
Waterway and Wetland Permit Intake Specialist

cc: Neil Molstad, Wetland Identification Specialist



## Wetland Delineation Report

5.6 Acre Parcel Wetland Delineation  
Village of Germantown,  
Washington County, Wisconsin

Lead Delineator: Brian Lennie



**Prepared for:**

Jeff Vilione  
Enviro-Safe Consulting, LLC  
W130N10500 Washington Drive  
Germantown, WI 53022

**Prepared by:**

Stantec Consulting Services Inc.  
12075 North Corporate Parkway,  
Suite 200  
Mequon, Wisconsin 53092

Stantec Project #: 193706367

September 24, 2018

# WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

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# WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

## 1.0 INTRODUCTION

---

Stantec Consulting Services Inc. (Stantec) completed a wetland investigation on a 5.59-acre Parcel (the "Property") located on Washington Road, in the Village of Germantown, Wisconsin. The Property is comprised of two parcels with the parcel ID numbers GTNV254280 and GTNV25481, more specifically located in Section 25, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin. The Property location is shown on Figure 1 (Appendix A).

The purpose and objective of this investigation was to identify the extent and spatial arrangement of wetlands within the Property. The investigation was completed by Brian Lennie of Stantec on September 11, 2018. Two wetland areas were identified on the Property.

Wetlands and waterways that are considered Waters of the U.S. are subject to regulation under Section 404 of the Clean Water Act (CWA) and the jurisdictional regulatory authority lies with the USACE. Additionally, the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapters 30 and 281 Wisconsin State Statutes and Wisconsin Administrative Codes NR 103, 299, 350, and 353. Finally, counties, townships, and municipalities may have local zoning authority over certain types of wetlands and waterways. Stantec recommends this report be submitted to local authorities, WDNR, and USACE for final jurisdictional review and concurrence.

# WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

## 2.0 METHODS

---

### 2.1 WETLANDS

Wetland determinations were based on the criteria and methods outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (1987) and subsequent guidance documents (USACE 1991, 1992), and the applicable Regional Supplement to the *Corps of Engineers Wetland Delineation Manual*.

The wetland determination involved the use of available resources to assist in the assessment such as U.S. Geological Survey (USGS) topographic maps, U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey, WDNR Surface Water Web Viewer Wisconsin Wetland Inventory (WWI) mapping, and aerial photography.

On-site wetland determinations were made using the three criteria (vegetation, soil, and hydrology) and the technical approach defined in the USACE 1987 Manual and applicable Regional Supplement. According to procedures described in the 1987 Manual and applicable Regional Supplement areas that, under normal circumstances, reflect a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands.

Additionally, as climate plays an important role in the formation and identification of wetlands, the antecedent precipitation in the months leading up to the field investigation was reviewed. The current year's precipitation data were compared to long-term (30-year) precipitation averages and standard deviation to determine if precipitation was normal, wet, or dry for the area using a WETS analysis, as developed by the NRCS (Appendix D).

Wetland determination sample points were identified and surveyed using a Global Positioning System (GPS) capable of sub-meter accuracy and mapped using Geographical Information System (GIS) software.

### 2.2 WATERWAYS

Prior to field work, waterways in the vicinity of the Property were reviewed on existing maps and available aerial photographs. During the field work, evidence of channels, ditches, streams, ponds, or other water bodies that may be regulated by the USACE or WDNR within the parcel, were investigated as they relate to the wetlands mapped.

# WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

## 3.0 RESULTS

### 3.1 SITE DESCRIPTION

The Property that was investigated is comprised of a mowed lawn in an existing business park, a storm water pond and the wetlands. The Property is bordered to the north and east by wetlands, to the west by Washington Road and the business park, and to the south by a storm water pond. The Property is gradually sloped from north to south, with under 20 feet of grade difference. The wetlands on the Property have an elevation of approximately 795 feet above mean sea level (msl). The Property is approximately 802 feet above msl near the northern edge of the property, sloping down to 794 feet above msl in the southern edge of the Property.

According to the NRCS Web Soil Survey, (Appendix A, Figures 2 and 3), five soil types are present within the Property, soil types are also described in the table below.

MzkA: Mussey loam, 0 to 3 percent slopes	Mussey	100	Depressions on outwash plains, drainageways on outwash plains	Yes	2,3
DuB: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes	Ozaukee-High carbonate substratum	92-100	End moraines, ground moraines	No	-
	Ashkum-Drained	0-5	End moraines, ground moraines	Yes	2
	Orthents, clayey	0-3	Ground moraines	No	-
	Urban land	0-3	Ground moraines	No	-
DuB2: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded	Ozaukee-High carbonate substratum, eroded	92-100	End moraines, ground moraines	No	-
	Ashkum-Drained	0-5	End moraines, ground moraines	Yes	2
	Urban land	0-3	Ground moraines	No	-
	Orthents, clayey	0-3	Ground moraines	No	-
SeA: St. Charles silt loam, gravelly substratum, 0 to 2 percent slopes	St. Charles-Gravelly substratum	80-95	Outwash plains	No	-
	Fox	3-13	Outwash plains	No	-
	Mayville	2-7	Outwash plains	No	-
VsA: Virgil silt loam, gravelly substratum, 0 to 3 percent slopes	Virgil-Gravelly substratum	85-95	Outwash plains	No	-
	Drummer-Drained	2-6	Outwash plains	Yes	2
	Sebewa	2-5	Outwash plains	Yes	2,3
	Sable	1-4	Outwash plains	Yes	2

The WWI Map identifies wetlands on the Property (Appendix A, Figure 4) in the same general size and location as field delineated wetlands W1 and W2.

Average precipitation for the investigation area was obtained from the Germantown National Weather Service (NWS) weather station (GERW3) and used for the WETS analysis. A total of 16.06

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

inches of precipitation occurred in the three-month time period from February to April 2018, compared to 30-year average of 12.13 inches. Based on the WETS analysis, conditions were considered "normal" (Appendix D). However, 9.45 inches of rain had fallen in August with an additional 4.25 inches of rain in September prior to field work.

### 3.2 WETLANDS

Two wetlands were identified within the Property. Four wetland determination data forms were completed for the wetland and adjacent upland area and are included in Appendix B. The wetland and sample point locations are shown on Figure 5 (Appendix A).

#### Wetland W1

Wetland W1 is approximately 0.32 acres in size and consists of a fresh wet meadow wetland located in the eastern edge of the Property bordering the storm water pond, as shown in Figure 5. The wetland is identified on the WWI Map as an open water, standing water palustrine, excavated (W0Hx) wetland. Soils at the wetland sample point P2 met the Depleted Below Dark Surface (A11) hydric soil indicator. Hydrophytic vegetation was dominated by sandbar willow (*Salix interior*, FACW), black willow (*Salix nigra*, OBL), stalk-grain sedge (*Carex stipata*, OBL), and dark-green bulrush (*Scirpus atrovirens*, OBL). The hydrology indicators of High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), Drainage Patterns (B10), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Because all three wetland criteria were met at sample point P2, W1 was determined to be wetland.

#### Wetland W2

Wetland W2 is approximately 0.007 acres in size and consists of a floodplain forest wetland located in the northern edge of the Property, as shown in Figure 5. The wetland is identified on the WWI Map as a forested broad-leaved deciduous wet soil, palustrine (T3K) wetland. Soils at the wetland sample point P4 met the Redox Dark Surface (F6) hydric soil indicator. Hydrophytic vegetation was dominated by black willow, common buckthorn (*Rhamnus cathartica*, FAC). The hydrology indicators of Drift Deposits (B3), Drainage Patterns (B10), Geomorphic Position (D2), and the FAC Neutral Test (D5) were observed, which met the wetland hydrology criterion. Because all three wetland criteria were met at sample points P4, W2 was determined to be wetland.

### 3.3 UPLANDS

Uplands within the Property consisted of a business park with mowed upland lawn and some planted trees and shrubs. Dominant species present included, White oak (*Quercus alba*, FACU), common buckthorn, prickly ash (*Zanthoxylum americanum*, FACU), staghorn sumac (*Rhus typhina*, UPL), sideoats grama (*Bouteloua curtipendula*, UPL), Kentucky blue grass (*Poa pratensis*, FAC), and flat-stem blue grass (*Poa compressa*, FACU).

### 3.4 WATERWAYS

No waterways are identified by the WDNR Surface Water Web Viewer on the on the Property; and thus, no boundaries were marked in the field.

### 3.5 OTHER ENVIRONMENTAL CONSIDERATIONS

This report is limited to the identification of state and/or federally regulated wetlands within the Property. However, there may be other regulated environmental features within the Property, including, but not limited to, historical or archeological features, endangered or threatened species, jurisdictional waterways and/or floodplains, etc. Federal, state, and local units of government and regional planning organizations may have regulatory authority to control or

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

restrict land uses within or in close proximity to these features. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

### 4.0 CONCLUSION

---

Stantec completed a wetland investigation on a 5.59-acre Parcel (the "Property") located on Washington Road, in the Village of Germantown, Wisconsin. The Property is comprised of two parcels with the parcel ID numbers GTNV254280 and GTNV25481, more specifically located in Section 25, Township 9 North, Range 20 East, Village of Germantown, Washington County, Wisconsin.

The investigation was completed by Brian Lennie of Stantec on September 11, 2018. Two wetlands were identified on the Property totaling 0.33 acres. Adjacent uplands were comprised of a developed lot with gradually sloped uplands and mowed lawn with some planted landscape trees.

The USACE has regulatory authority over Waters of the U.S., including adjacent wetlands, and the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapters 30 and 281 Wisconsin State Statutes and Wisconsin Administrative Codes NR 103, 299, 350, and 353. Finally, counties, townships, and municipalities may have local zoning authority over certain types of wetlands and waterways.

Prior to beginning work at this Property or disturbing or altering wetlands, waterways, or adjacent lands in any way, Stantec recommends that the owner obtain the necessary permits or other agency regulatory review and concurrence with regard to the proposed work to comply with applicable regulations. Stantec can assist with identification and/or assessment of additional regulated resources at your request, to the extent that the work is within our range of expertise.

The information provided by Stantec regarding wetland boundaries is a scientific-based analysis of the wetland and upland conditions present within the Study Area at the time of the fieldwork. The delineation was performed by experienced and qualified professionals using standard practices and sound professional judgment. The ultimate decision on wetland boundaries rests with the USACE and, in some cases, the WDNR or a local unit of government. As a result, there may be adjustments to boundaries based upon review by a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to, recent precipitation patterns and the season of the year. In addition, the physical characteristics of the Property can change over time depending on the weather, vegetation patterns, drainage activities on adjacent parcels, or other events. Any of these factors can change the nature and extent of wetlands within the Property.



## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

### 5.0 REFERENCES

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## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
September 24, 2018

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## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
Appendix A – Figures  
September 24, 2018

### Appendix A – Figures

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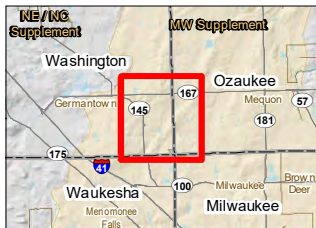
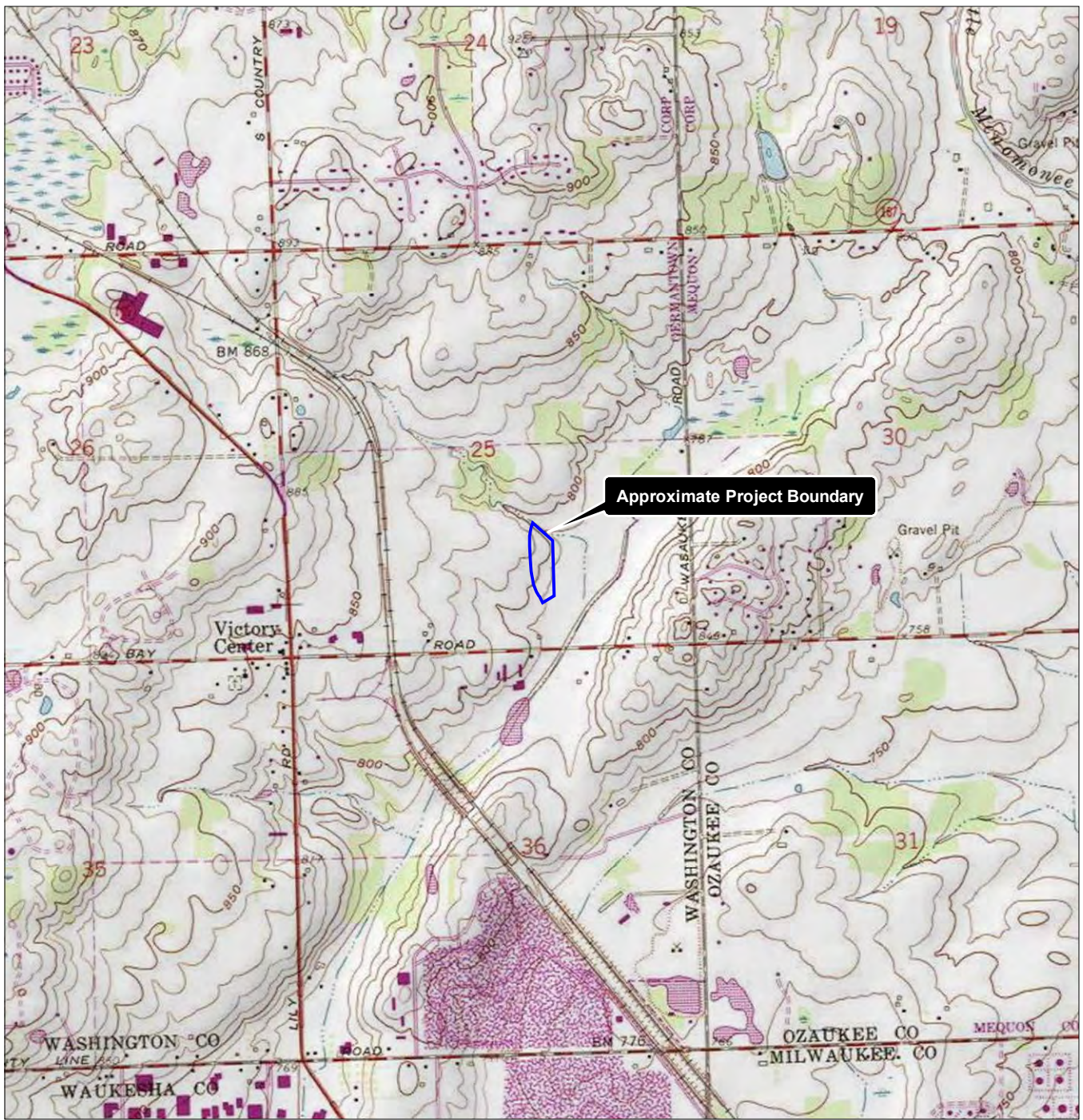
Figure 1. Project Location and Topography

Figure 2. NRCS Soil Survey Data – Hydric Ratings

Figure 3. NRCS Soil Survey Data – Wetland Indicator Soils

Figure 4. Wisconsin Wetland Inventory

Figure 5. Field Collected Data

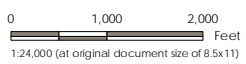


**Legend**  
 Approximate Project Boundary

Figure No. 1  
 Title: Project Location and Topography

Client/Project: Enviro-Safe Consulting LLC.  
 5.6 Acre Parcel Wetland Delineation

Project Location: 19376367  
 T9N, R20E, S25, Prepared by MEH on 2018-09-07  
 V. of Germantown, Technical Review by AS on 2018-09-10  
 Washington Co., WI, Independent Review by BSL on 2018-09-20

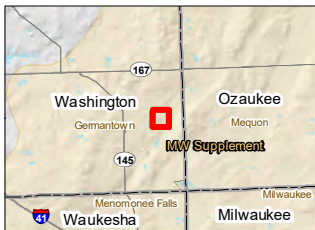


- Notes**
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
  2. Data Sources Include: Stantec, WDOT, WDNR
  3. Background: USGS 7.5' Topographic Quadrangles

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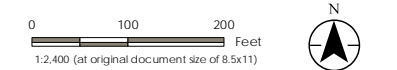
**Legend**

- Approximate Project Boundary
- ~ DNR 24k Hydrography
- ~ Perennial Stream
- - - Intermittent Stream
- Waterbody
- NRCS Soil Survey Data**
- Hydric Ratings**
- Predominantly Hydric Soil
- Partially Hydric Soil
- Non-Hydric Soil

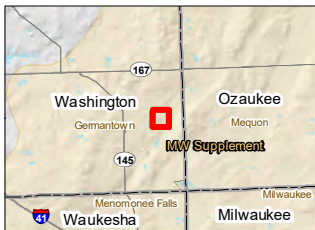
Figure No. **2**  
 Title: **NRCS Soil Survey Data Hydric Ratings**  
 Client/Project: **Enviro-Safe Consulting, LLC. 5.6 Acre Parcel Wetland Delineation**  
 Project Location: 193706367  
 T9N, R20E, S25, Prepared by MEH on 2018-09-07  
 V. of Germantown, Technical Review by AS on 2018-09-10  
 Washington Co., WI, Independent Review by BSL on 2018-09-20

**Notes**  
 1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet  
 2. Data Sources Include: Stantec, W&DOT, WDNR, NRCS  
 3. Orthophotography: 2017 NAP

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- Legend**
- Approximate Project Boundary
  - ~ DNR 24k Hydrography
  - ~ Perennial Stream
  - - - Intermittent Stream
  - Waterbody
  - NRCS Soil Survey Data
  - Wetland Indicator Soils
  - Poorly Drained
  - Somewhat Poorly Drained

Figure No. **3**  
 Title: **NRCS Soil Survey Data Wetland Indicator Soils**  
 Client/Project: **Enviro-Safe Consulting, LLC. 5.6 Acre Parcel Wetland Delineation**  
 Project Location: 193706367  
 T9N, R20E, S25, Prepared by MEH on 2018-09-07  
 V. of Germantown, Technical Review by AS on 2018-09-10  
 Washington Co., WI, Independent Review by BSL on 2018-09-20

**Notes**  
 1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet  
 2. Data Sources Include: Stantec, W&DOT, WDNR, NRCS  
 3. Orthophotography: 2017 NAP

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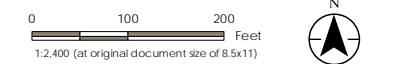
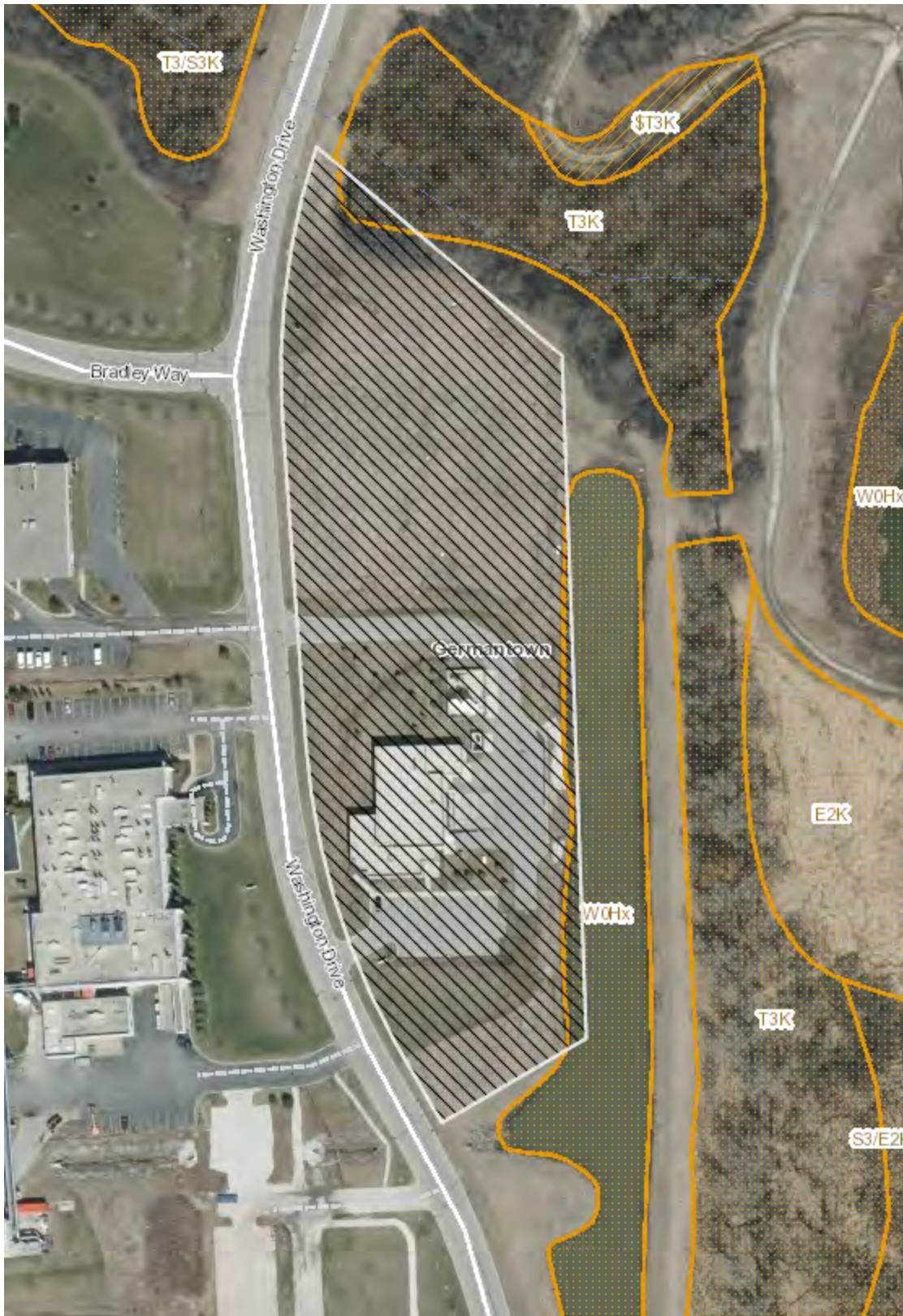






Figure 4 - Wisconsin Wetland Inventory



Legend

- ◆ Wetland Identifications and Confirmations
- Wetland Class Points**
  - ▲ Dammed pond
  - Excavated pond
  - Filled excavated pond
  - ▲ Filled/draind wetland
  - Wetland too small to delineate
- /// Filled Points
- Wetland Class Areas**
  - Wetland
  - Upland
- /// Filled Areas
- Wetland Class Points**
  - ▲ Dammed pond
  - Excavated pond
  - Filled excavated pond
  - ▲ Filled/draind wetland
  - Wetland too small to delineate
- /// Filled Points
- Wetland Class Areas**
  - Wetland
  - Upland
- /// Filled Areas
- Municipality
- State Boundaries
- County Boundaries
- Major Roads**
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads**
  - County HWY
  - Local Road
- + Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams

0.1                      0                      0.03                      0.1 Miles

1:1,980

NAD\_1983\_HARN\_Wisconsin\_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

Notes







## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation  
Appendix B – Wetland Determination Data Forms  
September 24, 2018

# Appendix B – Wetland Determination Data Forms

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## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Enviro-Safe Resource Recovery City/County: Germantown Sampling Date: 9/11/18  
 Applicant/Owner: Enviro-Safe Consulting, LLC. State: WI Sampling Point: P1  
 Investigator(s): Brian Lennie Section, Township, Range: S25, T9N, R20E  
 Landform (hillside, terrace, etc.): shoulder Local relief (concave, convex, none): none  
 Slope (%): 6 Lat: N/A Long: N/A Datum: N/A  
 Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation X, Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes      No X  
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>    </u> No <u>X</u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
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Remarks:  
 WETS analysis indicates that antecedent precipitation is within the normal range. However, August was extremely wet and an additional 4.25 inches of rain fell in September prior to the sampling date. Mowed Lawn Area.

### VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1.	_____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2.	_____	_____	_____	_____																	
3.	_____	_____	_____	_____																	
4.	_____	_____	_____	_____																	
5.	_____	_____	_____	_____																	
=Total Cover																					
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u> )																				
1.	<u>Fraxinus pennsylvanica</u>	<u>1</u>	<u>No</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>38</u></td> <td>x 4 = <u>152</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>109</u> (A)</td> <td><u>364</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.34</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>38</u>	x 4 = <u>152</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>109</u> (A)	<u>364</u> (B)	Prevalence Index = B/A = <u>3.34</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>1</u>	x 2 = <u>2</u>																				
FAC species <u>70</u>	x 3 = <u>210</u>																				
FACU species <u>38</u>	x 4 = <u>152</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>109</u> (A)	<u>364</u> (B)																				
Prevalence Index = B/A = <u>3.34</u>																					
2.	_____	_____	_____	_____																	
3.	_____	_____	_____	_____																	
4.	_____	_____	_____	_____																	
5.	_____	_____	_____	_____																	
=Total Cover																					
Herb Stratum	(Plot size: <u>5 ft radius</u> )																				
1.	<u>Poa pratensis</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2.	<u>Poa compressa</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>																	
3.	<u>Asclepias syriaca</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
4.	<u>Trifolium repens</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
5.	<u>Cichorium intybus</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
6.	<u>Cirsium arvense</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
7.	_____	_____	_____	_____																	
8.	_____	_____	_____	_____																	
9.	_____	_____	_____	_____																	
10.	_____	_____	_____	_____																	
=Total Cover																					
Woody Vine Stratum	(Plot size: <u>30 ft radius</u> )																				
1.	_____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>																
2.	_____	_____	_____	_____																	
=Total Cover																					

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point:      P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/2	100					Loamy/Clayey	
7-16	7.5YR 4/3	100					Loamy/Clayey	
16-20	7.5YR 3/3	100					Loamy/Clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Remarks:  
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Enviro-Safe Resource Recovery City/County: Germantown Sampling Date: 9/11/18  
 Applicant/Owner: Enviro-Safe Consulting, LLC. State: WI Sampling Point: P2  
 Investigator(s): Brian Lennie Section, Township, Range: S25, T9N, R20E  
 Landform (hillside, terrace, etc.): footslope Local relief (concave, convex, none): none  
 Slope (%): 2 Lat: N/A Long: N/A Datum: N/A  
 Soil Map Unit Name: Ozaukee silt loam, high carbonate substratum, 2 to 6 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
---	--

Remarks:  
 WETS analysis indicates that antecedent precipitation is within the normal range. However, August was extremely wet and an additional 4.25 inches of rain fell in September prior to the sampling date.

### VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1.	_____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>    4    </u> (A) Total Number of Dominant Species Across All Strata: <u>    4    </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2.	_____	_____	_____	_____																	
3.	_____	_____	_____	_____																	
4.	_____	_____	_____	_____																	
5.	_____	_____	_____	_____																	
				=Total Cover																	
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u> )																				
1.	<u>Salix interior</u>	15	Yes	FACW	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>    100    </u></td> <td>x 1 = <u>    100    </u></td> </tr> <tr> <td>FACW species <u>    25    </u></td> <td>x 2 = <u>    50    </u></td> </tr> <tr> <td>FAC species <u>    10    </u></td> <td>x 3 = <u>    30    </u></td> </tr> <tr> <td>FACU species <u>    0    </u></td> <td>x 4 = <u>    0    </u></td> </tr> <tr> <td>UPL species <u>    0    </u></td> <td>x 5 = <u>    0    </u></td> </tr> <tr> <td>Column Totals: <u>    135    </u> (A)</td> <td><u>    180    </u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>    1.33    </u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>    100    </u>	x 1 = <u>    100    </u>	FACW species <u>    25    </u>	x 2 = <u>    50    </u>	FAC species <u>    10    </u>	x 3 = <u>    30    </u>	FACU species <u>    0    </u>	x 4 = <u>    0    </u>	UPL species <u>    0    </u>	x 5 = <u>    0    </u>	Column Totals: <u>    135    </u> (A)	<u>    180    </u> (B)	Prevalence Index = B/A = <u>    1.33    </u>	
Total % Cover of:	Multiply by:																				
OBL species <u>    100    </u>	x 1 = <u>    100    </u>																				
FACW species <u>    25    </u>	x 2 = <u>    50    </u>																				
FAC species <u>    10    </u>	x 3 = <u>    30    </u>																				
FACU species <u>    0    </u>	x 4 = <u>    0    </u>																				
UPL species <u>    0    </u>	x 5 = <u>    0    </u>																				
Column Totals: <u>    135    </u> (A)	<u>    180    </u> (B)																				
Prevalence Index = B/A = <u>    1.33    </u>																					
2.	<u>Salix nigra</u>	15	Yes	OBL																	
3.	_____	_____	_____	_____																	
4.	_____	_____	_____	_____																	
5.	_____	_____	_____	_____																	
				=Total Cover																	
Herb Stratum	(Plot size: <u>5 ft radius</u> )																				
1.	<u>Carex stipata</u>	30	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2.	<u>Scirpus atrovirens</u>	30	Yes	OBL																	
3.	<u>Typha angustifolia</u>	20	No	OBL																	
4.	<u>Carex blanda</u>	10	No	FAC																	
5.	<u>Symphytotrichum lateriflorum</u>	5	No	FACW																	
6.	<u>Epilobium coloratum</u>	5	No	OBL																	
7.	<u>Mentha arvensis</u>	5	No	FACW																	
8.	_____	_____	_____	_____																	
9.	_____	_____	_____	_____																	
10.	_____	_____	_____	_____																	
				=Total Cover																	
Woody Vine Stratum	(Plot size: <u>30 ft radius</u> )																				
1.	_____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>																
2.	_____	_____	_____	_____																	
				=Total Cover																	

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point:     P2    

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Loamy/Clayey	
6-14	10YR 4/2	50	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 3/1	40						mixed matrix
14-21	10YR 5/3	90	10YR 5/6	10	C	M	Loamy/Clayey	Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

**Hydric Soil Present?**      Yes       No

**Remarks:**

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?    Yes     No     Depth (inches): \_\_\_\_\_  
 Water Table Present?    Yes     No     Depth (inches):     4      
 Saturation Present?    Yes     No     Depth (inches):     0      
 (includes capillary fringe)

**Wetland Hydrology Present?**    Yes     No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:**

## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Enviro-Safe Resource Recovery City/County: Germantown Sampling Date: 9/11/18  
 Applicant/Owner: Enviro-Safe Consulting, LLC. State: WI Sampling Point: P3  
 Investigator(s): Brian Lennie Section, Township, Range: S25, T9N, R20E  
 Landform (hillside, terrace, etc.): summit Local relief (concave, convex, none): none  
 Slope (%): 5 Lat: N/A Long: N/A Datum: N/A  
 Soil Map Unit Name: Virgil silt loam, gravelly substratum, 0 to 3 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation X, Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes      No X  
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>    </u> No <u>X</u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u>
---	--

Remarks:  
 WETS analysis indicates that antecedent precipitation is within the normal range. However, August was extremely wet and an additional 4.25 inches of rain fell in September prior to the sampling date. Vegetation disturbed from mowing.

### VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Quercus alba</u>		40	Yes	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)																
2. _____																					
3. _____																					
4. _____																					
5. _____																					
		40	=Total Cover																		
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u> )																				
1. <u>Rhamnus cathartica</u>		20	Yes	FAC	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>90</u></td> <td>x 5 = <u>450</u></td> </tr> <tr> <td>Column Totals: <u>210</u> (A)</td> <td><u>890</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.24</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>90</u>	x 5 = <u>450</u>	Column Totals: <u>210</u> (A)	<u>890</u> (B)	Prevalence Index = B/A = <u>4.24</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>10</u>	x 2 = <u>20</u>																				
FAC species <u>20</u>	x 3 = <u>60</u>																				
FACU species <u>90</u>	x 4 = <u>360</u>																				
UPL species <u>90</u>	x 5 = <u>450</u>																				
Column Totals: <u>210</u> (A)	<u>890</u> (B)																				
Prevalence Index = B/A = <u>4.24</u>																					
2. <u>Zanthoxylum americanum</u>		20	Yes	FACU																	
3. <u>Rhus typhina</u>		10	Yes	UPL																	
4. _____																					
5. _____																					
		50	=Total Cover																		
Herb Stratum	(Plot size: <u>5 ft radius</u> )																				
1. <u>Bouteloua curtipendula</u>		70	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Trifolium hybridum</u>		10	No	FACU																	
3. <u>Trifolium repens</u>		10	No	FACU																	
4. <u>Daucus carota</u>		10	No	UPL																	
5. <u>Elymus repens</u>		10	No	FACU																	
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
		110	=Total Cover																		
Woody Vine Stratum	(Plot size: <u>30 ft radius</u> )																				
1. <u>Vitis riparia</u>		10	Yes	FACW	<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>X</u>																
2. _____																					
		10	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point:     P3    

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/3	100					Loamy/Clayey	
4-12	7.5YR 4/3	100					Loamy/Clayey	
12-14	7.5YR 4/4	70					Loamy/Clayey	
	10YR 7/4	30						Sandy

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: <u>          hard sandy clay          </u> Depth (inches): <u>          14          </u>	<b>Hydric Soil Present?</b> Yes <u>    </u> No <u>  X  </u>
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Remarks:  
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes <u>    </u> No <u>  X  </u> Depth (inches): <u>          </u> Water Table Present?      Yes <u>    </u> No <u>  X  </u> Depth (inches): <u>          </u> Saturation Present?        Yes <u>    </u> No <u>  X  </u> Depth (inches): <u>          </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>  X  </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



## WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Enviro-Safe Resource Recovery City/County: Germantown Sampling Date: 9/11/18  
 Applicant/Owner: Enviro-Safe Consulting, LLC. State: WI Sampling Point: P4  
 Investigator(s): Brian Lennie Section, Township, Range: S25, T9N, R20E  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 2 Lat: N/A Long: N/A Datum: N/A  
 Soil Map Unit Name: Mussey loam, 0 to 3 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>0</u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u>
--	--

Remarks:  
 WETS analysis indicates that antecedent precipitation is within the normal range. However, August was extremely wet and an additional 4.25 inches of rain fell in September prior to the sampling date.

### VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Salix nigra</u>		30	Yes	OBL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80.0%</u> (A/B)																
2. _____																					
3. _____																					
4. _____																					
5. _____																					
		30	=Total Cover																		
Sapling/Shrub Stratum	(Plot size: <u>15 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Rhamnus cathartica</u>		75	Yes	FAC	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>30</u></td> <td>x 2 = <u>60</u></td> </tr> <tr> <td>FAC species <u>135</u></td> <td>x 3 = <u>405</u></td> </tr> <tr> <td>FACU species <u>10</u></td> <td>x 4 = <u>40</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>205</u> (A)</td> <td><u>535</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.61</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>30</u>	x 2 = <u>60</u>	FAC species <u>135</u>	x 3 = <u>405</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>205</u> (A)	<u>535</u> (B)	Prevalence Index = B/A = <u>2.61</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>30</u>	x 1 = <u>30</u>																				
FACW species <u>30</u>	x 2 = <u>60</u>																				
FAC species <u>135</u>	x 3 = <u>405</u>																				
FACU species <u>10</u>	x 4 = <u>40</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>205</u> (A)	<u>535</u> (B)																				
Prevalence Index = B/A = <u>2.61</u>																					
2. <u>Ribes americanum</u>		5	No	FACW																	
3. _____																					
4. _____																					
5. _____																					
		80	=Total Cover																		
Herb Stratum	(Plot size: <u>5 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Rhamnus cathartica</u>		60	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Thalictrum dasycarpum</u>		5	No	FACW																	
3. <u>Geum aleppicum</u>		5	No	FACW																	
4. <u>Symphotrichum lateriflorum</u>		5	No	FACW																	
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
		75	=Total Cover																		
Woody Vine Stratum	(Plot size: <u>30 ft radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Parthenocissus quinquefolia</u>		10	Yes	FACU	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>																
2. <u>Vitis riparia</u>		10	Yes	FACW																	
		20	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point:     P4    

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 2/1	100					Loamy/Clayey	
6-18	10YR 3/1	98	10YR 4/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
18-20	10YR 4/2	70	10YR 4/6	10	C	M	Loamy/Clayey	Prominent redox concentrations
	10YR 3/3	20						some sand and gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: <u>                    </u> sand/gravel Depth (inches): <u>                    </u> 20	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:  
 This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**HYDROLOGY**

Wetland Hydrology Indicators:	Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u> Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u> Saturation Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>                    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation

Appendix C – Site Photographs

September 24, 2018

### Appendix C – Site Photographs

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**Photo 1.** Sample Point P1, sample pit



**Photo 2.** Sample Point P1, view east



**Photo 3.** Sample Point P2, sample pit



**Photo 4.** Sample Point P2, view south





**Photo 5.** Sample Point P3, sample pit



**Photo 6.** Sample Point P3, view north



**Photo 7.** Sample Point P4, sample pit



**Photo 8.** Sample Point P4, view north

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation

Appendix D – WETS Analysis

September 24, 2018

### Appendix D – WETS Analysis

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## WETS Analysis Worksheet

Project Name: Enviro-Safe CSM  
 Project Number: 193706367  
 Period of interest: June - August  
 Station: Germantown, WI GERW3 (NWS LI)  
 County: Washington County, WI

**Long-term rainfall records (from WETS table)**

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	August	2.71	3.98	4.75
2nd month prior:	July	2.68	3.88	4.62
3rd month prior:	June	2.62	4.27	5.16
		Sum =	<b>12.13</b>	

**Site determination**

Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
9.45	Wet	3	3	9
2.63	Dry	1	2	2
3.98	Normal	2	1	2
Sum =			Sum*** =	<b>13</b>

\*Normal precipitation with 30% to 70% probability of occurrence

Determination: \_\_\_\_\_ Wet

\*\*Condition value:

Dry = 1  
 Normal = 2  
 Wet = 3

\*\*\*If sum is:

6 to 9 then period has been drier than normal  
 10 to 14 then period has been normal  
 15 to 18 then period has been wetter than normal

\_\_\_\_\_ Dry  
**X** \_\_\_\_\_ Normal

Precipitation data source: <http://agacis.rcc-acis.org/?fips=55131>

Reference: Donald E. Woodward, ed. 1997. *Hydrology Tools for Wetland Determination*, Chapter 19. Engineering Field Handbook. U.S. Department of Agriculture, Natural Resources Conservation Service, Fort Worth, TX.

WETS Table

WETS Station: GERMANTOWN,  
WI

Requested years: 1986 - 2018

Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	27.6	11.5	19.6	1.50	0.91	1.82	4	13.4
Feb	30.8	13.6	22.2	1.32	0.77	1.60	3	12.1
Mar	42.0	23.7	32.9	1.91	1.19	2.31	5	6.4
Apr	54.7	34.2	44.4	3.75	2.57	4.47	7	1.7
May	66.7	44.7	55.7	3.78	2.41	4.55	7	0.3
Jun	76.7	54.1	65.4	4.27	2.62	5.16	7	0.0
Jul	80.8	59.1	69.9	3.88	2.68	4.62	6	0.0
Aug	79.0	57.6	68.3	3.98	2.71	4.75	7	0.0
Sep	72.2	49.4	60.8	3.42	1.96	4.16	6	0.0
Oct	59.3	38.1	48.7	2.45	1.60	2.94	6	0.1
Nov	45.4	28.0	36.7	2.09	1.19	2.54	5	2.2
Dec	32.4	17.2	24.8	1.78	0.99	2.16	4	11.9
Annual:					31.78	36.09		
Average	55.6	35.9	45.8	-	-	-	-	-
Total	-	-	-	34.12			67	48.2

GROWING SEASON DATES

Years with missing data:	24 deg = 1	28 deg = 1	32 deg = 1
Years with no occurrence:	24 deg = 0	28 deg = 0	32 deg = 0
Data years used:	24 deg = 32	28 deg = 32	32 deg = 32
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	4/10 to 11/2: 206 days	4/27 to 10/14: 170 days	5/8 to 10/5: 150 days
70 percent *	4/4 to 11/8: 218 days	4/22 to 10/20: 181 days	5/3 to 10/10: 160 days

\* Percent chance of the growing season occurring between the Beginning and Ending dates.

STATS TABLE - total precipitation (inches)

Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1944						4.36	1.62	1.89	3.07	0.33	2.26	1.25	14.78
1945	0.48	1.38	1.20	2.87	4.29	3.29	1.21	7.49	5.76	0.86	3.37	1.10	33.30
1946	2.00	0.90	3.03	1.21	2.38	3.48	0.18	1.31	2.49	1.25	2.50	1.65	22.38
1947	1.51	M1.20	1.10	3.70	M4.54	2.90	2.67	2.50	5.54	1.73	2.85	1.21	31.45
1948	M0.84	1.80	3.15	2.93	3.07	3.15	1.34	1.05	1.49	0.62	3.32	2.10	24.86
1949	1.75	1.49	1.93	1.43	1.35	6.72	4.65	2.47	1.45	1.79	0.38	1.67	27.08
1950	2.24	0.82	2.27	3.23	2.34	4.27	6.10	M2.38	2.86	0.57	0.90	1.85	29.83
1951	1.87	1.73	3.74	5.39	1.58	1.82	3.62	2.78	3.35	6.03	3.01	M0.99	35.91
1952	1.88	0.58	2.02	1.88	3.33	M2.36	7.99	3.98	0.	0.	3.57	1.44	29.

										55	04		62
1953	0.79	1.36	M0.63	2.83	3.66	5.79	2.15	2.13	1.44	0.79	0.43	1.37	23.37
1954	0.61	0.76	M0.19	3.85	1.98	9.36	4.76	4.98	3.26	4.21	0.60	1.14	35.70
1955	0.66	1.13	0.67	4.09	3.23	4.68	2.52	0.53	1.55	2.69	0.81	0.45	23.01
1956	0.27	0.91	1.62	2.58	4.11	1.46	6.01	3.82	0.59	0.23	1.68	0.80	24.08
1957	0.41	0.37	0.82	3.03	4.06	3.99	2.23	2.89	0.95	1.32	2.09	1.58	23.74
1958	0.42	0.07	0.26	1.57	2.52	2.49	1.37	4.14	4.38	3.11	3.20	0.12	23.65
1959	1.04	1.22	2.77	2.52	M1.20	1.68	2.56	2.50	2.94	4.85	1.77	M1.85	26.90
1960	2.39	1.48	1.65	3.35	4.59	3.39	5.06	7.57	6.35	M2.46	1.83	T	40.12
1961	0.10	0.61	2.81	2.37	1.28	2.05	1.86	2.55	6.84	3.50	2.38	1.12	27.47
1962	M0.80	0.98	1.17	0.95	1.67	1.59	4.29	1.51	2.01	1.91	1.36	0.57	18.81
1963	0.55	0.14	1.31	0.98	3.43	3.78	1.65	4.15	2.37	0.61	2.47	0.44	21.88
1964	1.48	0.09	1.76	4.50	2.20	1.02	10.11	2.50	2.17	0.23	2.56	0.49	29.11
1965	1.51	0.81	2.88	2.86	1.45	1.41	3.27	3.87	10.03	3.96	1.65	3.06	36.76
1966	1.24	1.03	2.45	2.39	2.00	1.10	1.19	2.95	1.67	1.92	1.53	2.18	21.65
1967	1.02	0.84	1.35	2.13	2.34	4.76	1.30	1.89	1.02	3.38	2.22	1.18	23.43
1968	0.59	0.35	0.39	4.36	4.04	5.56	2.86	3.10	3.84	1.35	1.92	1.94	30.30
1969	1.91	0.04	0.73	2.46	3.07	6.55	3.34	3.50	1.24	3.92	1.32	2.09	30.17
1970	0.63	0.19	1.46	1.30	5.20	2.67	4.84	1.12	6.37	2.41	1.71	1.76	29.66
1971	0.93	3.19	1.80	2.78	2.34	2.96	1.74	3.03	1.86	2.43	2.94	4.20	30.20
1972	0.51	0.32	1.21	1.47	2.61	3.07	4.70	7.45	8.90	2.70	1.12	2.39	36.45
1973	0.67	0.92	2.03	4.75	5.40	2.06	0.69	1.68	4.20	4.33	1.82	2.66	31.21
1974	2.01	1.25	2.78	3.46	3.08	4.46	3.54	3.30	1.12	2.34	1.90	1.83	31.07
1975	1.63	1.07	2.49	2.17	1.01	4.32	5.17	6.62	0.79	0.27	4.19	0.75	30.48
1976	1.09	1.48	4.64	3.26	2.71	1.75	2.06	1.11	0.78	1.97	0.50	0.27	21.62
1977	0.32	0.45	3.62	1.82	0.58	5.37	5.59	6.74	3.23	2.65	2.82	1.84	35.03
1978	0.80	0.26	0.36	2.63	4.43	6.16	4.49	1.53	5.38	1.63	2.35	1.46	31.48
1979	1.59	0.65	3.60	3.49	2.22	1.66	2.45	5.24	T	1.86	2.36	1.64	26.76
1980	1.11	0.50	0.46	3.20	1.75	3.40	3.48	7.27	5.15	1.17	1.12	0.95	29.56
1981	0.03	1.68	0.54	3.68	1.16	2.98	5.69	4.39	5.63	4.90	1.71	M0.63	33.02
1982	M1.22	0.12	1.92	3.69	3.94	2.89	2.66	3.19	1.08	2.05	M4.56	2.86	30.18
1983	M0.55	1.21	2.52	3.63	4.36	2.56	2.11	6.44	3.42	1.84	3.53	M1.85	34.02
1984	0.50	1.78	1.32	4.66	3.94	6.18	4.54	3.50	3.06	5.10	4.55	2.82	41.95
1985	1.32	2.00	2.43	1.76	1.62	1.81	3.39	2.95	4.81	4.79	6.70	2.04	35.62
1986	0.78	2.56	1.78	2.68	1.88	5.00	5.19	5.33	10.00	2.00	M1.00	0.36	39.00

										43	42	01	42
1987	1.03	T	2.65	4.08	2.49	2.19	4.64	4.54	4.	1.	2.76	4.27	34.
									45	42			52
1988	2.51	0.60	1.12	3.44	0.53	1.19	1.03	2.21	4.	1.	4.28	1.52	25.
									99	95			37
1989	0.37	0.43	2.09	1.16	3.79	2.68	6.10	6.17	3.	1.	0.66	0.27	28.
									29	47			48
1990	1.81	1.10	2.34	2.03	6.32	4.27	2.14	5.65	4.	2.	2.62	2.74	37.
									27	64			93
1991	1.00	0.25	3.32	3.79	3.28	4.23	4.66	3.46	3.	5.	M3.	1.62	38.
									97	47	27		32
1992	M0.97	1.55	M2.76	M2.88	0.78	1.15	3.98	4.24	4.	1.	5.18	1.90	30.
									05	24			68
1993	M2.17	1.16	1.56	8.47	2.66	5.50	5.37	3.28	4.	0.	1.57	0.28	36.
									17	78			97
1994	M1.49	3.08	0.83	1.28	1.57	3.38	8.75	3.75	1.	0.	3.22	0.98	30.
									80	75			88
1995	1.56	0.13	2.11	4.04	3.40	0.97	2.28	9.03	1.	4.	3.00	0.69	32.
									20	17			58
1996	1.98	0.91	0.50	3.20	2.94	9.31	3.96	2.18	2.	4.	0.64	1.41	33.
									02	74			79
1997	1.80	2.73	1.37	1.23	4.12	9.61	5.41	4.39	1.	1.	M1.	1.41	36.
									86	41	15		49
1998	3.25	2.09	4.18	4.48	2.76	4.32	2.02	3.77	1.	3.	2.11	0.84	34.
									40	04			26
1999	4.62	1.02	1.46	6.75	4.97	4.55	8.39	2.06	3.	0.	1.02	M1.	40.
									39	69	53		45
2000	M0.93	1.47	1.71	2.96	8.28	4.60	5.05	3.79	5.	1.	M2.	M5.	43.
									29	33	88	01	30
2001	M1.45	M3.06	0.32	3.90	4.63	5.12	2.03	3.28	6.	3.	0.64	1.10	35.
									43	20			16
2002	1.25	M1.53	1.63	3.91	2.30	5.85	2.31	5.38	M3.	2.	M0.	0.63	32.
									67	90	75		11
2003	0.45	0.75	1.14	2.11	6.38	2.31	2.59	3.69	2.	M1.	5.67	1.92	30.
									11	78			90
2004	M0.89	0.98	4.27	2.91	12.83	5.41	1.88	2.46	0.	3.	2.25	1.57	38.
									09	13			67
2005	3.48	2.14	1.22	1.09	M3.15	1.91	3.27	3.56	4.	0.	4.22	1.23	30.
									59	78			64
2006	M2.50	0.75	3.14	4.24	6.11	2.38	2.82	3.61	3.	4.	1.65	1.69	37.
									71	55			15
2007	1.17	1.54	3.01	3.26	2.34	1.82	6.38	10.77	1.	2.	0.21	M1.	36.
									92	30	70		42
2008	1.82	M2.00	1.29	7.79	1.33	9.87	3.37	1.48	3.	2.	1.21	3.14	39.
									98	17			45
2009	0.73	1.19	3.20	4.55	2.90	2.77	1.13	3.04	1.	4.	1.16	3.52	30.
									89	35			43
2010	0.74	0.60	0.50	M5.01	3.28	6.50	8.61	1.71	2.	1.	0.91	1.41	33.
									26	80			33
2011	1.00	1.67	2.86	5.14	2.53	4.26	4.63	1.65	6.	1.	2.17	1.23	34.
									44	03			61
2012	1.04	0.84	2.88	2.46	3.65	0.38	2.85	3.51	1.	M4.	0.51	3.62	27.
									32	64			70
2013	2.70	2.49	1.12	6.70	5.62	4.88	2.58	0.82	2.	1.	2.55	0.89	34.
									46	77			58
2014	0.55	0.97	0.65	4.76	2.66	7.43	2.33	2.50	1.	2.	1.64	0.94	27.
									15	31			89
2015	0.35	0.26	0.64	5.79	3.23	2.39	3.12	3.89	5.	1.	3.24	5.36	34.
									40	26			93
2016	0.28	0.37	2.77	1.64	2.15	3.91	2.89	4.10	4.	4.	1.52	1.60	29.
									59	12			94
2017	1.86	1.16	2.00	4.36	4.97	6.63	3.76	2.50	0.	2.	1.11	0.45	32.
									80	80			40
2018	1.08	2.22	0.56	1.62	4.84	3.98	2.63	9.45	M4.				30.
									25				63

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

## WETLAND DELINEATION REPORT

5.6 Acre Parcel Wetland Delineation

Appendix E – Qualifications

September 24, 2018

# Appendix E – Qualifications

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# Environmental Technology Center

*certifies that*

*Brian Lennie*

*has successfully completed the*

## *U.S. Army Corps of Engineers Wetland Delineation Certification Training Program*

*Issued Certificate No. 291 on this sixteenth day of August, 1996, in Oakbrook Terrace, Illinois*

---

*Richard Chinn, C.E.T., Director of Training  
USACOE Certified Wetland Delineator*

**Environmental Technology Center  
8413 Laurel Fair Circle, Suite 200, Tampa, FL 33610-7355  
Ph: 813-621-8848 Fax: 813-621-0153**



**This training has been based in part on the U.S. Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (1987 Manual), as provided for in the training materials developed in conjunction with Section 307(e) of the Water Resources Development Act of 1990 for the Wetland Delineator Certification Program.**



# Certificate of Attendance

University of Wisconsin-La Crosse

Brian Lennie

Has Completed: 19 Hours of

*Advanced Wetland Delineation Training on this 31st day of August, 2001*

**Sponsored by**

UW-La Crosse River Studies Center  
and UW-La Crosse Continuing Education/Extension

**in cooperation with**

State of Wisconsin Department of Administration, Wisconsin Coastal Management Program  
Southeastern Wisconsin Regional Planning Commission  
United States Geological Survey  
USDA-Natural Resources Conservation Service  
Wisconsin Department of Natural Resources



# Certificate of Attendance

University of Wisconsin-La Crosse

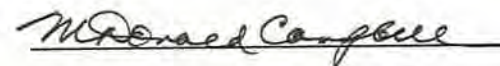
Brian Lennie

has completed 16 hours of advanced wetland delineation training sponsored by the River Studies Center and Continuing Education and Extension in cooperation with the Wisconsin Department of Administration, Wisconsin Coastal Management Council, Wisconsin Department of Natural Resources and UW-Extension, on this 18th day of August, 2000.



Mark Sandheinrich, Director

UW-La Crosse, River Studies Center



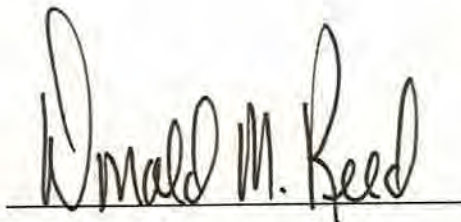
M. Donald Campbell, Director

UW-La Crosse, Continuing Education and Extension



Dea Larsen Converse, Program Manager

Wisconsin Coastal Management Program



Donald M. Reed, Chief Biologist

S.E. Wisconsin Regional Planning Commission



B. Dale Simon, Chief Biologist, Regulations Section

Wisconsin Department of Natural Resources





STORMWATER MANAGEMENT COMMISSION

**Lake County Stormwater Management  
Commission**

grants the designation of

***Certified Wetland Specialist #C-010***

to

**Brian Lennie**

In fulfillment of the professional requirements approved by the Lake County Stormwater Management Commission under the Lake County Watershed Development Ordinance (rev. 8-14-02).

A handwritten signature in black ink, appearing to read "Michael D. Warner".

Michael D. Warner, Chief Engineer

April 30, 2002

A handwritten signature in black ink, appearing to read "Glenn H. Westman".

Glenn H. Westman, CWS Administrator



**STORMWATER MANAGEMENT COMMISSION**

August 24, 2017

Mr. Brian Lennie  
Stantec  
12075 Corporate Parkway, Suite 200  
Mequon, WI 53092

**RE: Lake County Certified Wetland Specialist # C-010– Re-Certification**

Dear Brian:

The Lake County Stormwater Management Commission (SMC) is pleased to approve your re-certification as a *Certified Wetland Specialist (CWS)*, in accordance with the Lake County Watershed Development Ordinance (WDO). Your CWS certification is valid until September 17, 2020.

To maintain your certification, you will need to obtain a minimum of 24 hours of wetland-related training before the expiration date, including any designated SMC-mandatory training courses. If you are considering attending a training course and are not sure if will qualify as “wetland-related” training for your CWS certification, please provide us with information on the course (e.g., flyer, brochure, agenda, etc.) and we will advise you accordingly.

If you have any questions regarding your CWS certification, please call me at (847)377-7718 or e-mail me at [gwestman@lakecountyil.gov](mailto:gwestman@lakecountyil.gov).

Sincerely,

Lake County Stormwater Management Commission

A handwritten signature in black ink that reads "Glenn H. Westman".

Glenn H. Westman, P.W.S., CWS  
Principal Wetland Specialist/CWS Program Administrator



## McHenry County Certified Wetland Specialists

The following is a list of persons that have met the minimum requirements for being a Certified Wetland Specialist (CWS) as specified in the McHenry County Stormwater Management Ordinance (SMO). This list is provided as a courtesy for persons seeking Certified Wetland Specialist consulting expertise. The inclusion of a firm or person on this list does not constitute a recommendation, endorsement, or certification of performance. It is the responsibility of consultants to be knowledgeable of the professional qualifications necessary to provide such services and to obtain the requisite expertise. McHenry County personnel will not provide any recommendations. Those seeking professional services are advised to utilize independent judgment in evaluating the credentials of any firm or person appearing on this list.

FIRST NAME	LAST NAME	COMPANY	ADDRESS	PHONE	E-MAIL ADDRESS
Cheryl	Nash	AECOM	303 E. Wacker Dr., Suite 1400, Chicago, IL 60601	(312) 373-6808	cheryl.nash@aecom.com
Bryce	Pewonka	AECOM	207 N. Broadway, Suite 315, Billings, MT 59101	(406) 652-7481	
Teri	Radke	AECOM	303 E. Wacker Dr., Suite 1400, Chicago, IL 60601	(312) 373-7086	teri.radke@aecom.com
John	Larson	Applied Ecological Services	17921 Smith Rd., PO Box 256, Brodhead, WI 53520	(608) 897-8641	john@appliedeco.com
William	Stoll	Applied Ecological Services	120 W. Main St., #201, West Dundee, IL 60118	(847) 844-9385	
Steve	Zimmerman	Applied Ecological Services	120 W. Main St., #201, West Dundee, IL 60118	(847) 844-9385	stevez@appliedeco.com
Thomas	Ganfield	Baxter & Woodman, Inc.	256 S. Pine St., Burlington, WI 53105	(262) 763-7834	tganfield@baxterwoodman.com
Valerie	Jakobi	Bollinger Environmental, Inc.	4901 Forest Ave., Suite C, Downers Grove, IL 60515	(630) 968-1960	val.jakobi@gmail.com
Justin	Bailey	Burns & McDonnell	9400 Ward Pkwy., Kansas City, MO 64114	(816) 333-9400	jbailey@burnsmcd.com
Edward	Belmonte	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3393	ebelmonte@burnsmcd.com
Sarah	Gutman	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	sgutman@burnsmcd.com
Amy	Moon	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	amoon@burnsmcd.com
Marie	Russo	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	kmrusso@burnsmcd.com
Sarah	Soard	Burns & McDonnell	1431 Opus Pl., Suite 400, Downers Grove, IL 60515	(630) 724-3200	ssoard@burnsmcd.com
Kari	Harris	Canadian National	17641 S. Ashland Ave., Homewood, IL 60403	(708) 332-4543	kari.harris@cn.ca
Greg	Quartucci	Cardno, Inc.	6605 Steger Rd., Unit A, Monee, IL 60449	(708) 534-3450	gregquartucci@cardno.com
Dan	Salas	Cardno, Inc.	6140 Cottonwood Dr., Suite A, Fitchburg, WI 53719	(608) 661-2955	dan.salas@cardno.com
Nicole	Staskowski	Cardno, Inc.	6140 Cottonwood Dr., Suite A, Fitchburg, WI 53719	(608) 661-2955	nicole.staskowski@cardno.com
Joseph	Von Wahlde	Cardno, Inc.	6605 Steger Rd., Unit A, Monee, IL 60449	(708) 534-3450	joe.vonwahlde@cardno.com
Michele	Martzke	CB&I	1607 E. Main St., Suite E, St. Charles, IL 60174	(630) 762-1400	michele.martzke@cbi.com
Stephen	Chu	CH2M Hill, Inc.	135 South 84th St., Suite 400, Milwaukee, WI 53214	(414) 847-0265 x40265	stephen.chu@ch2m.com
Jedd	Anderson	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	jedd@cbbel.com
Megan	Briggs	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	mbriggs@cbbel.com
Julie	Gangloff	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	jgangloff@cbbel.com
Elizabeth	Gilson	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	egilson@cbbel.com
Eric	Japsen	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	ejapsen@cbbel.com
Thomas	Kehoe	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tkehoe@cbbel.com
Travis	Kessler	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tkessler@cbbel.com
Thomas	McArdle	Christopher B. Burke Engineering, Ltd.	9575 W. Higgins Rd., Suite 600, Rosemont, IL 60018	(847) 823-0500	tmcardle@cbbel.com
Ken	Fiske	Conservation Services	9313 Bull Valley Rd., Woodstock, IL 60098	(815) 338-0592	conserveone@aol.com
Alicia	Douglass	Davey Resource Group	700 McHenry Ave., Woodstock, IL 60098	(815) 334-8266	alicia.douglass@davey.com
Daniel	Krill	DK Environmental Services, Inc.	1422 Sunflower Ct., Grayslake, IL 60030	(847) 548-7458	dkenserv@sbcglobal.net
Jason	Doland	Doland Engineering, LLC	334 E. Colfax St., Unit C-1, Palatine, IL 60067	(847) 991-5088	jdoland@dolandengineering.com
Susan	Rowley	ENCAP, Inc.	2585 Wagner Ct., DeKalb, IL 60115	(815) 748-4500	srowley@encapinc.net
Valerie	Scola	Enbridge	1409 Hammond Ave., Superior, WI 54880	(715) 398-4638	valerie.scola@enbridge.com
Erin	Pande	Engineering Resource Associates, Inc.	35701 West Ave., Suite 150, Warrenville, IL 60555	(630) 393-3060	epande@eraconsultants.com
Carl	Peterson	Gary R. Weber Associates, Inc.	212 S. Main St., Wheaton, IL 60187	(630) 668-7197	cpeterson@grwainc.com
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Melissa	Skyer				
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University of Wisconsin-La Crosse  
Office of Continuing Education and Extension  
Professional Transcript

For: Brian Lennie  
12075 N. Corporate Parkway  
Mequon WI 53092

<u>Event Date(s)</u>	<u>Event</u>	<u>Location</u>	<u>CE units</u>	<u>Contact hours</u>	<u>Type</u>
3/7/2018 - 3/7/2018	Critical Methods 2018	Radisson Hotel, Madison, Wis.	0.65	6.5000	UW-Ex CEUs

Continuing Education Units (CEUs) are a means of recognizing and recording satisfactory participation in non-degree programs. University of Wisconsin-Extension (UW-Ex) awards one CEU for each 10 contact hours in a continuing education experience. Actual contact hours are recorded.

UW-Ex CEUs fulfill continuing education requirements for many professionals, agencies and organizations. Professional associations may have specific licensing requirements. Individuals should contact their licensing association before assuming UW-Ex CEUs will fulfill all requirements.

*Penny Tiedt*



University of Wisconsin-La Crosse  
Office of Continuing Education and Extension  
**Professional Transcript**

For: Brian Lennie  
12075 N. Corporate Parkway  
Mequon WI 53092

<u>Event Date(s)</u>	<u>Event</u>	<u>Location</u>	<u>CE units</u>	<u>Contact hours</u>	<u>Type</u>
3/8/2017 - 3/8/2017	Critical Methods 2017	Crowne Plaza, Madison, Wis.	0.65	6.5000	CEU

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University of Wisconsin-La Crosse  
Office of Continuing Education and Extension

**Professional Transcript**

*Angie Coenen*

Angie Coenen  
Outreach Specialist  
University of Wisconsin-La Crosse  
Continuing Education & Extension

Brian Lennie, Stantec  
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Mequon WI 53092

<u>Event Date(s)</u>	<u>Event</u>	<u>CE units</u>	<u>Contact hours</u>	<u>Type</u>
3/9/2016 - 3/9/2016	Critical Methods Wetland Delineation, Madison, Wis.	0.65	6.5000	CEU

University of Wisconsin-La Crosse  
Office of Continuing Education and Extension  
**Professional Transcript**

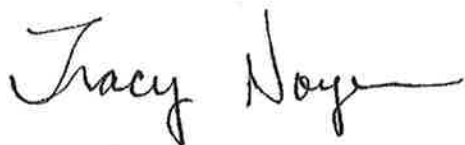
For: brian lennie  
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mequon WI 53092

<u>Event Date(s)</u>	<u>Event</u>	<u>Location</u>	<u>Credits</u>	<u>Type</u>
3/11/2015 - 3/11/2015	Critical Methods	Crowne Plaza, Madison, Wis.	0.65	CEU

**NOTE:**

*Continuing Education Units (CEUs) are a means of recognizing and recording satisfactory participation in non-degree programs. University of Wisconsin-Extension (UW-Ex) awards one CEU for each 10 contact hours in a continuing education experience. Actual contact hours are recorded.*

*UW-Extension CEUs fulfill continuing education requirements for many professionals, agencies and organizations. Professional associations may have specific licensing requirements. Individuals should contact their licensing association before assuming UW-Extension CEUs will fulfill all requirements.*



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The University of Wisconsin-La Crosse  
Continuing Education and Extension  
In Partnership with UW-Extension

Certify that:

**Brian Lennie**

*has completed*

**Critical Methods in Wetland Delineation  
March 12, 2014  
Madison, Wisconsin**

**CEUs: 0.65      Contact Hours: 6.5**

**Sponsored by**

UW-La Crosse River Studies Center and  
UW-La Crosse Continuing Education/Extension

**in cooperation with**

State of Wisconsin Department of Administration, Wisconsin Coastal Management Program  
Southeastern Wisconsin Regional Planning Commission  
United States Geological Survey  
USDA-Natural Resources Conservation Service  
Wisconsin Department of Natural Resources  
U.S. Army Corps of Engineers

The University of Wisconsin-La Crosse  
Continuing Education and Extension  
In Partnership with UW-Extension

Certify that:

**Brian Lennie**

*has completed*

**Critical Methods in Wetland Delineation  
March 13, 2013  
Madison, Wisconsin**

**CEUs: 0.65      Contact Hours: 6.5**

**Sponsored by**

UW-La Crosse River Studies Center and  
UW-La Crosse Continuing Education/Extension

**in cooperation with**

State of Wisconsin Department of Administration, Wisconsin Coastal Management Program  
Southeastern Wisconsin Regional Planning Commission  
United States Geological Survey  
USDA-Natural Resources Conservation Service  
Wisconsin Department of Natural Resources  
U.S. Army Corps of Engineers

**Enviro-Safe Resource Recovery**  
**Appendix R-02 - Village of Germantown Artificial Wetland Determination**



Village of  
  
Germantown  
...Willkommen

Community Development Department

Jeffrey W. Retzlaff, AICP, Director  
N112 W17001 Mequon Road P.O. Box 337  
Germantown, WI 53022-0337  
(262) 250-4735 direct line  
(262) 253-8255 fax

JDV Real Estate Holdings LLC  
c/o Jeff Vilione  
W130 N10500 Washington Drive  
Germantown, WI 53022

June 3, 2020

RE: Facility Expansion Approval; Condition No. 11 (Wetland Encroachment)

Mr. Vilione:

As you are aware, the Plan Commission approved your facility expansion site plan application with a condition (Condition No. 11) that requires you to obtain a conditional use permit for the proposed driveway encroachment into the 25' **wetland setback unless said wetland is determined** by either the DNR or Village of Germantown to be an "artificial wetland".

Section 24.03(17a) of the Village's **shoreland-Wetland** code defines "**artificial wetland**" as "*A landscape feature where hydrophytic vegetation may be present as a result of human modifications to the landscape or hydrology and for which there is no prior wetland or stream history.*"

Similarly, the DNR defines an artificial wetland as a landscape feature where hydrophytic vegetation may be present as a result of human modifications to the landscape or hydrology and for which the department has no definitive evidence showing a prior wetland or stream history existed before August 1, 1991, but does not include any wetland area that serves as a fish spawning area or a passage to a fish spawning area, or a wetland created as a result of a wetland mitigation requirement.

Based on a review of historical aerial photography, topographic mapping and various development plans for the Germantown Business Park, wherein your property and the abutting storm water management basin is located, I have determined that the wetland area located on the west side of the storm water basin that would be impacted by the proposed driveway extension shown on the approved site plans for your facility expansion (dated February 4, 2020) meets the Village's **definition of an "artificial wetland"**.

Historical photography and topographic maps clearly indicate that the area west of the navigable stream where the storm basin and associated wetland are now present were nothing more than tilled farm land prior to 1998 when the business park was developed by the Village and the storm basin installed.

Consequently, you are NOT required to obtain a conditional use permit under Condition No. 11.

Please contact me if you have questions or concerns.

Respectfully,  
Jeffrey W. Retzlaff, AICP

COPIES: Harwood Engineering  
Skyline Development Corp

APPENDIX S: EDWC IMPACT REPORT

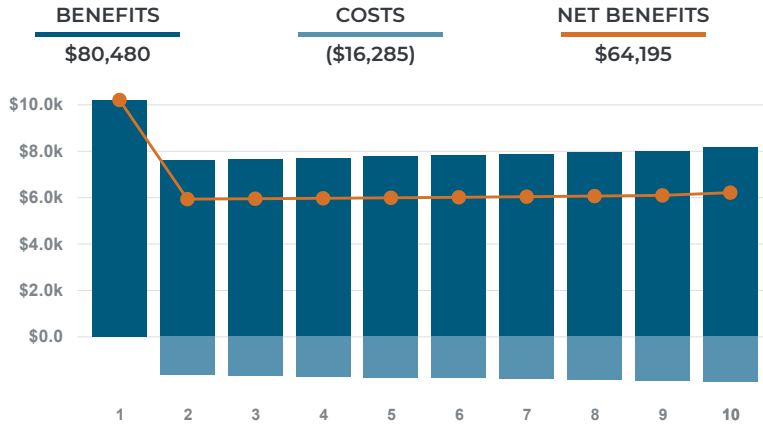




IMPACT REPORT  
**ENVIRO-SAFE**

Facilities Consolidation-Draft pending receipt of FF&E financials

**Washington County**



**JOBS**

**17.8 Total**  
10.0 Direct  
7.8 Spin-off

**SALARIES**

**\$48,840 Avg**  
\$53,747 Direct  
\$42,567 Spin-off

**CAPITAL INVEST.**

**\$3,035,792**  
Buildings + FF&E

**RESIDENTIAL DEV.**

0.3 Homes  
2.1 Relocations

**NET BENEFITS** **\$64,195**  
Present Value \$50,258

**BENEFITS**

Sales Taxes	\$10,096
Real Property Taxes	\$49,612
FF&E Property Taxes	\$4,813
New Residential Property Taxes	\$1,506
Building Permits and Fees	\$0
Miscellaneous Taxes and User Fees	\$14,453
<b>Benefits Subtotal</b>	<b>\$80,480</b>

**COSTS**

Cost of Government Services	(\$16,285)
<b>Costs Subtotal</b>	<b>(\$16,285)</b>

**NET BENEFITS OVER 10 YEARS**

COUNTY	\$64,195
MUNICIPALITY	\$107,255
SCHOOL DISTRICT	\$230,175
TECHNICAL COLLEGE	\$28,201





# Enviro-Safe - Impact Report

Facilities Consolidation-Draft pending receipt of FF&E financials

Prepared By: EDWC

## Purpose & Limitations

This report presents the results of an economic and fiscal analysis undertaken by EDWC using Impact Dashboard, a customized web application developed by Impact DataSource, LLC.

Impact Dashboard utilizes estimates, assumptions, and other information developed by Impact DataSource from its independent research effort detailed in a custom user guide prepared for EDWC.

This report, generated by the Impact Dashboard application, has been prepared by EDWC to assist economic development stakeholders in making an evaluation of the economic and fiscal impact of business activity in the community. This report does not purport to contain all of the information that may be needed to conclude such an evaluation. This report is based on a variety of assumptions and contains forward-looking statements concerning the results of operations of the subject firm. EDWC made reasonable efforts to ensure that the project-specific data entered into Impact Dashboard reflects realistic estimates of future activity. Estimates of future activity involve known and unknown risks and uncertainties that could cause actual results, performance, or events to differ materially from those expressed or implied in this report.

EDWC and Impact DataSource make no representation or warranty as to the accuracy or completeness of the information contained herein, and expressly disclaim any and all liability based on or relating to any information contained in, or errors or omissions from, this information or based on or relating to the use of this information.

## Introduction

This report presents the results of an economic impact analysis performed using Impact Dashboard, a model developed by Impact DataSource. The report estimates the impact that a potential project will have on the local economy and estimates the costs and benefits for local taxing districts over a 10-year period.

## Description of the Project

Enviro-Safe Resource Recovery is currently operating in a 15,000 sq. ft. building that was built in 2012. There proposed expansion is an additional 23,000 to 30,000 sq. ft. to the north of their current location. The tentative capital project budget is around \$2.6 million, as well as approximately \$400,000 in FF&E. By choosing to build they are looking to add an additional 10 full-time staff during the next 3 years with a total projected payroll increase of \$525,000. This impact analysis is considered a draft until final FF&E financial are received.

## Economic Impact Overview

The table below summarizes the economic impact of the project over the first 10 years in terms of job creation, salaries paid to workers, and taxable sales.

SUMMARY OF ECONOMIC IMPACT OVER 10 YEARS IN WASHINGTON COUNTY			
IMPACT	DIRECT	SPIN-OFF	TOTAL
Permanent jobs created	10.0	7.8	<b>17.8</b>
Salaries or wages paid to workers	\$5,242,820	\$3,247,927	<b>\$8,490,747</b>
Taxable sales and purchases expected in Washington County	\$1,613,143	\$405,991	<b>\$2,019,134</b>

Totals may not sum due to rounding

The Project may result in new residents moving to the community and potentially new residential properties being constructed as summarized below.

SUMMARY OF POPULATION IMPACT OVER 10 YEARS IN WASHINGTON COUNTY			
IMPACT	DIRECT	SPIN-OFF	TOTAL
Workers who will move to Washington County	1.2	0.9	<b>2.1</b>
New residents in Washington County	3.1	2.4	<b>5.6</b>
New residential properties constructed in Washington County	0.2	0.1	<b>0.3</b>
New students to attend local school district	0.6	0.5	<b>1.1</b>

Totals may not sum due to rounding

The new taxable property to be supported by the Project over the next 10 years is summarized in the following table.

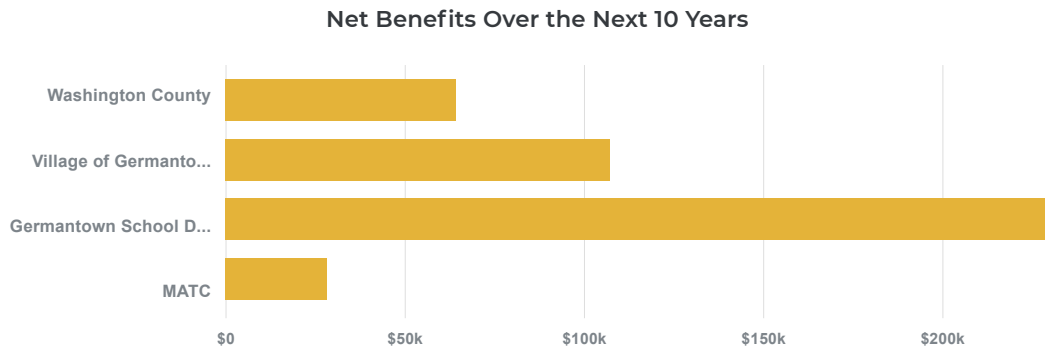
SUMMARY OF TAXABLE PROPERTY OVER THE FIRST 10 YEARS IN WASHINGTON COUNTY						
YR.	NEW RESIDENTIAL PROPERTY	LAND	BUILDINGS...	FF&E	NON-RESIDENTIAL PROPERTY	TOTAL PROPERTY
2020	\$0	\$0	\$1,973,048	\$374,280	\$2,347,328	\$2,347,328
2021	\$67,235	\$0	\$2,012,509	\$336,852	\$2,349,361	\$2,416,597
2022	\$68,580	\$0	\$2,052,760	\$299,424	\$2,352,184	\$2,420,764
2023	\$69,952	\$0	\$2,093,815	\$261,996	\$2,355,811	\$2,425,763
2024	\$71,351	\$0	\$2,135,691	\$224,568	\$2,360,259	\$2,431,610
2025	\$72,778	\$0	\$2,178,405	\$187,140	\$2,365,545	\$2,438,323
2026	\$74,233	\$0	\$2,221,973	\$149,712	\$2,371,685	\$2,445,918
2027	\$75,718	\$0	\$2,266,412	\$112,284	\$2,378,696	\$2,454,414
2028	\$77,232	\$0	\$2,311,741	\$74,856	\$2,386,597	\$2,463,829
2029	\$78,777	\$0	\$2,357,976	\$74,856	\$2,432,832	\$2,511,609

### Fiscal Impact Overview

The Project will generate additional benefits and costs, a summary of which is provided below. The source of specific benefits and costs are provided in greater detail for each taxing district on subsequent pages.

FISCAL NET BENEFITS OVER THE NEXT 10 YEARS				
	BENEFITS	COSTS	NET BENEFITS	PRESENT VALUE*
Washington County	\$80,480	(\$16,285)	\$64,195	\$50,258
Village of Germantown	\$137,221	(\$29,966)	\$107,255	\$82,808
Germantown School District	\$239,395	(\$9,220)	\$230,175	\$177,467
MATC	\$28,201	\$0	\$28,201	\$21,747
<b>Total</b>	<b>\$485,297</b>	<b>(\$55,471)</b>	<b>\$429,826</b>	<b>\$332,279</b>

\*The Present Value of Net Benefits expresses the future stream of net benefits received over several years as a single value in today's dollars. Today's dollar and a dollar to be received at differing times in the future are not comparable because of the time value of money. The time value of money is the interest rate or each taxing entity's discount rate. This analysis uses a discount rate of 5.0% to make the dollars comparable.

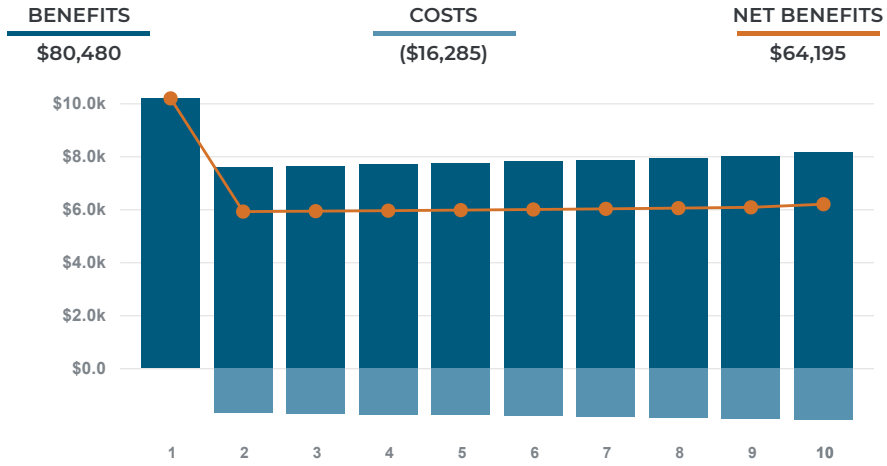


## Washington County Fiscal Impact

The table below displays the estimated additional benefits, costs, and net benefits to be received by Washington County over the next 10 years of the Project.

NET BENEFITS OVER 10 YEARS: WASHINGTON COUNTY			
BENEFITS	PROJECT	HOUSEHOLDS	TOTAL
Sales Taxes	\$4,789	\$5,307	\$10,096
Real Property Taxes	\$49,612	\$0	\$49,612
FF&E Property Taxes	\$4,813	\$0	\$4,813
New Residential Property Taxes	\$0	\$1,506	\$1,506
Building Permits and Fees	\$0	\$0	\$0
Miscellaneous Taxes and User Fees	\$9,452	\$5,001	\$14,453
<b>Benefits Subtotal</b>	<b>\$68,667</b>	<b>\$11,813</b>	<b>\$80,480</b>
COSTS	PROJECT	HOUSEHOLDS	TOTAL
Cost of Government Services	(\$10,646)	(\$5,639)	(\$16,285)
<b>Costs Subtotal</b>	<b>(\$10,646)</b>	<b>(\$5,639)</b>	<b>(\$16,285)</b>
<b>Net Benefits</b>	<b>\$58,020</b>	<b>\$6,174</b>	<b>\$64,195</b>

Annual Fiscal Net Benefits for Washington County

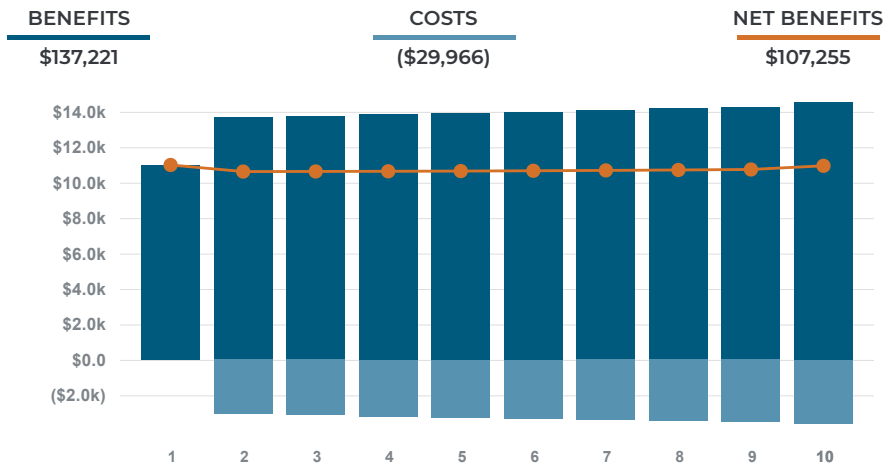


## Village of Germantown Fiscal Impact

The table below displays the estimated additional benefits, costs, and net benefits to be received by Village of Germantown over the next 10 years of the Project.

NET BENEFITS OVER 10 YEARS: VILLAGE OF GERMANTOWN			
BENEFITS	PROJECT	HOUSEHOLDS	TOTAL
Real Property Taxes	\$101,159	\$0	\$101,159
FF&E Property Taxes	\$9,814	\$0	\$9,814
New Residential Property Taxes	\$0	\$708	\$708
Building Permits and Fees	\$0	\$0	\$0
Utility Revenue	\$12,039	\$1,333	\$13,372
Miscellaneous Taxes and User Fees	\$10,945	\$1,223	\$12,168
<b>Benefits Subtotal</b>	<b>\$133,956</b>	<b>\$3,264</b>	<b>\$137,221</b>
COSTS	PROJECT	HOUSEHOLDS	TOTAL
Cost of Utility Services	(\$12,139)	(\$1,342)	(\$13,481)
Cost of Government Services	(\$14,825)	(\$1,660)	(\$16,485)
<b>Costs Subtotal</b>	<b>(\$26,964)</b>	<b>(\$3,002)</b>	<b>(\$29,966)</b>
<b>Net Benefits</b>	<b>\$106,993</b>	<b>\$262</b>	<b>\$107,255</b>

Annual Fiscal Net Benefits for Village of Germantown



## Germantown School District Fiscal Impact

The table below displays the estimated additional benefits, costs, and net benefits to be received by Germantown School District over the next 10 years of the Project.

NET BENEFITS OVER 10 YEARS: GERMANTOWN SCHOOL DISTRICT			
BENEFITS	PROJECT	HOUSEHOLDS	TOTAL
Real Property Taxes	\$207,818	\$0	\$207,818
FF&E Property Taxes	\$20,162	\$0	\$20,162
New Residential Property Taxes	\$0	\$1,373	\$1,373
Addtl. State & Federal School Funding	\$0	\$10,042	\$10,042
<b>Benefits Subtotal</b>	<b>\$227,980</b>	<b>\$11,415</b>	<b>\$239,395</b>
COSTS	PROJECT	HOUSEHOLDS	TOTAL
Cost to Educate New Students	\$0	(\$9,220)	(\$9,220)
<b>Costs Subtotal</b>	<b>\$0</b>	<b>(\$9,220)</b>	<b>(\$9,220)</b>
<b>Net Benefits</b>	<b>\$227,980</b>	<b>\$2,195</b>	<b>\$230,175</b>

Annual Fiscal Net Benefits for Germantown School District

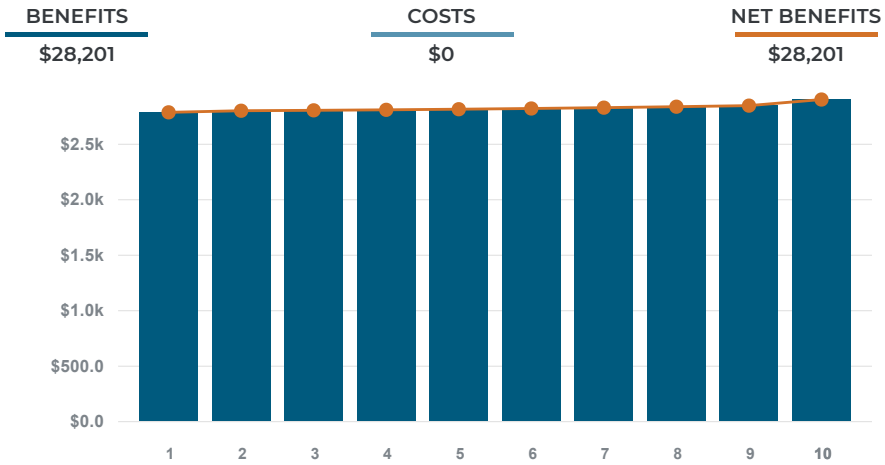


## MATC Fiscal Impact

The table below displays the estimated additional benefits, costs, and net benefits to be received by MATC over the next 10 years of the Project.

NET BENEFITS OVER 10 YEARS: MATC			
BENEFITS	PROJECT	HOUSEHOLDS	TOTAL
Real Property Taxes	\$25,600	\$0	\$25,600
FF&E Property Taxes	\$2,484	\$0	\$2,484
New Residential Property Taxes	\$0	\$118	\$118
<b>Benefits Subtotal</b>	<b>\$28,084</b>	<b>\$118</b>	<b>\$28,201</b>
COSTS	PROJECT	HOUSEHOLDS	TOTAL
None Estimated	\$0	\$0	\$0
<b>Costs Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Net Benefits</b>	<b>\$28,084</b>	<b>\$118</b>	<b>\$28,201</b>

Annual Fiscal Net Benefits for MATC





## Methodology

### Overview of Methodology

The Impact DashBoard model combines project-specific attributes with community data, tax rates, and assumptions to estimate the economic impact of the Project and the fiscal impact for local taxing districts over a 10-year period.

The economic impact as calculated in this report can be categorized into two main types of impacts. First, the direct economic impacts are the jobs and payroll directly created by the Project. Second, this economic impact analysis calculates the spin-off or indirect and induced impacts that result from the Project. Indirect jobs and salaries are created in new or existing area firms, such as maintenance companies and service firms, that may supply goods and services for the Project. In addition, induced jobs and salaries are created in new or existing local businesses, such as retail stores, gas stations, banks, restaurants, and service companies that may supply goods and services to new workers and their families.

The economic impact estimates in this report are based on the Regional Input-Output Modeling System (RIMS II), a widely used regional input-output model developed by the U. S. Department of Commerce, Bureau of Economic Analysis. The RIMS II model is a standard tool used to estimate regional economic impacts. The economic impacts estimated using the RIMS II model are generally recognized as reasonable and plausible assuming the data input into the model is accurate or based on reasonable assumptions. Impact DataSource utilizes adjusted county-level multipliers to estimate the impact occurring at the sub-county level.

Two types of regional economic multipliers were used in this analysis: an employment multiplier and an earnings multiplier. An employment multiplier was used to estimate the number of indirect and induced jobs created or supported in the area. An earnings multiplier was used to estimate the amount of salaries to be paid to workers in these new indirect and induced jobs. The employment multiplier shows the estimated number of total jobs created for each direct job. The earnings multiplier shows the estimated amount of total salaries paid to these workers for every dollar paid to a direct worker. The multipliers used in this analysis are listed below:

562219 OTHER NONHAZARDOUS WASTE TREATMENT AND DISPOSAL		WASHINGTON COUNTY
Employment Multiplier	(Type II Direct Effect)	1.7822
Earnings Multiplier	(Type II Direct Effect)	1.6195

Most of the revenues estimated in this study result from calculations relying on (1) attributes of the Project, (2) assumptions to derive the value of associated taxable property or sales, and (3) local tax rates. In some cases, revenues are estimated on a per new household, per new worker, or per new school student basis.

The company or Project developer was not asked, nor could reasonably provide data for calculating some other revenues. For example, while the city will likely receive revenues from fines paid on speeding tickets given to new workers, the company does not know the propensity of its workers to speed. Therefore, some revenues are calculated using an average revenue approach.

This approach uses relies on two assumptions:

1. The taxing entity has two general revenue sources: revenues from residents and revenues from businesses.
2. The taxing entity will collect (a) about the same amount of miscellaneous taxes and user fees from each new household that results from the Project as it currently collects from existing households on average, and (b) the same amount of miscellaneous taxes and user fees from the new business (on a per worker basis) will be collected as it collects from existing businesses.

In the case of the school district, some additional state and federal revenues are estimated on a per new school student basis consistent with historical funding levels.

Additionally, this analysis sought to estimate the additional expenditures faced by local jurisdictions to provide services to new households and new businesses. A marginal cost approach was used to calculate these additional costs.

This approach relies on two assumptions:

1. The taxing entity spends money on services for two general groups: revenues from residents and revenues from businesses.
2. The taxing entity will spend slightly less than its current average cost to provide local government services (police, fire, EMS, etc.) to (a) new residents and (b) businesses on a per worker basis.

In the case of the school district, the marginal cost to educate new students was estimated based on a portion of the school's current expenditures per student and applied to the headcount of new school students resulting from the Project.

### About Impact DataSource

Established in 1993, Impact DataSource is an Austin, Texas-based economic consulting firm. Impact DataSource provides high-quality economic research, specializing in economic and fiscal impact analyses. The company is highly focused on supporting economic development professionals and organizations through its consulting services and software. Impact DataSource has conducted thousands of economic impact analyses of new businesses, retention and expansion projects, developments, and activities in all industry groups throughout the U.S.

For more information on Impact DataSource, LLC and our product Impact DashBoard, please visit our website [www.impactdatasource.com](http://www.impactdatasource.com)





## APPENDIX T: CLOSURE PLAN COSTS

T-01 Closure Plan PE Certification

T-02 Hazardous Waste Management Unit Closure Cost Summary

T-03 Closure Letter of Credit

**Enviro-Safe Resource Recovery  
Appendix T-01 - Stantec PE Certification  
for Closure Plan**

## Professional Engineer's Certification

Stantec Consulting Services Inc. (Stantec), under my supervision, reviewed and approved of these Hazardous Waste Closure Plan Requirements under Part 1, Section L of the Feasibility and Plan of Operation Report (FPOR) and Appendix T-02 of the FPOR HWMU Closure Cost Summary dated October 28, 2022 for Enviro-Safe Resource Recovery for their Germantown, Wisconsin TSD facility.

"I, **Brett Ballavance**, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 660 to 679, Wis. Adm. Code."



Brett A. Ballavance, P.E. (WI, MN, MI)

October 28, 2022

Date

Certifying Engineer - Wisconsin Registration Number 45556-6



**Enviro-Safe Resource Recovery  
Appendix T-02 - HWMU Closure Cost  
Summary**

## APPENDIX T-02: HAZARDOUS WASTE MANAGEMENT UNITS CLOSURE COST SUMMARY

## 2022 COST CALCULATION SUMMARY SHEET

Cost Summary	RM 124	RM 125	RM 126	East Loading Docks	Tanker Filling Area
Section A. Inventory Waste Disposal and Transportation	\$136,935.50	\$211,332.00	\$18,333.00	\$9,319.50	\$6,213.00
Section B. Decontamination and Waste Disposal	\$6,203.96	\$6,507.02	\$2,192.24	\$3,107.39	\$2,351.27
Section C. Miscellaneous Expenses	\$5,527.50	\$6,105.00	\$1,485.00	\$2,310.00	\$1,567.50
<b>TOTAL</b>	<b>\$148,666.96</b>	<b>\$223,944.02</b>	<b>\$22,010.24</b>	<b>\$14,736.89</b>	<b>\$10,131.77</b>
Contingency (10%)     \$41,948.99					
<b>GRAND TOTAL     \$461,438.87</b>					

This is a summary of the details provided under the respective sections indicated below. This cost estimate represents the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive.



### 2022 COST CALCULATION SUPPORTING DOCUMENTATION

#### SECTION A: Inventory Waste Disposal and Transportation

The inventory waste disposal and transportation include removing the containerized waste off-site and sending them to a designated TSD facility for proper treatment.

Section A.1: Specifications	RM 124	RM 125	RM 126	East Loading Docks	Tanker Filling Areas
Maximum Storage Capacity	616 DM55	784 DM55	160 DM55	18,000 gals.	12,000 gals.
Labor Hours (2-Person Crew)	17.5 hrs.	20 hrs.	5 hrs.	7.5 hrs.	5 hrs.
Disposal - Fuel Blending	500 DM55 (81%)	619 DM55 (79%)	160 DM55 (100%)	18,000 gals. (100%)	12,000 gals. (100%)
Disposal - Stabilization	55 DM55 (9%)	70 DM55 (9%)	0%	0%	0%
Disposal - Incineration	61 DM55 (10%)	40 DM55 (5%)	0%	0%	0%
Disposal - Lab Packs	0%	55 DM55 (7%)	0%	0%	0%
Number of Trucks	7 Trucks (Semi-Trailer)	8 Trucks (Semi-Trailer)	2 Trucks (Semi-Trailer)	3 Trucks (Tanker)	2 Trucks (Tanker)

Labor Hours. The labor hours include planning, area preparation and protection, set-up, labeling, loading, manifesting, and cleanup containers to be sent off-site for disposal including an auxiliary activity that may be required and is estimated to be 2.5 hours per truck loaded and includes a Project Manager (administrative/management) and a technician.

Disposal. Disposal treatment percentage is based upon 2021 actual business as a 10-day transfer facility and how containers are anticipated to be stored at the facility.

Section A.1: Cost	RM 124	RM 125	RM 126	East Loading Docks	Tanker Filling Areas
Cost: Labor Hours (2-Person Crew)	\$2,845.50	\$3,252.00	\$813.00	\$1,219.50	\$813.00
Cost: Disposal - Fuel Blending (\$87 DM 55 Liquid, \$127 DM 55 Sludge, \$196.00 DM 55 Solid)	\$57,820.00	\$107,250.00	\$13,920.00	\$2,700.00	\$1,800.00
Cost: Disposal - Stabilization (\$164.00 DM 55)	\$9,020.00	\$11,480.00	\$0.00	\$0.00	\$0.00
Cost: Disposal - Incineration (\$850.00 DM 55)	\$51,850.00	\$34,000.00	\$0.00	\$0.00	\$0.00
Cost: Disposal - Lab Packs (\$650.00 DM 55)	\$0.00	\$35,750.00	\$0.00	\$0.00	\$0.00
Cost: Transportation	\$15,400.00	\$19,600.00	\$3,600.00	\$5,400.00	\$3,600.00
<b>TOTAL</b>	<b>\$136,935.50</b>	<b>\$211,332.00</b>	<b>\$18,333.00</b>	<b>\$9,319.50</b>	<b>\$6,213.00</b>

Labor Cost. The labor cost per hour is \$162.60 which includes a Project Manager (\$106.00/hr.) and Technician (\$56.60/hr.). Hepaco, July-2022 Pricing and Agreement.

Cost: Disposal. Cost based upon calculations of current market price which reflects cost from a third party with no negotiated discounts for disposal methodology.

Transportation. A cost of \$25.00 per container is used to estimate the transportation cost and associated expenses for less-than truckload transportation pricing from Germantown, Wisconsin to the respective midwest disposal facility for containerized waste per current market price. A cost of \$1,800.00 per tanker is used based upon proposals provided in Nov-2021.

**Section B: Decontamination and Waste Disposal**

Section B.1: Specifications	RM 124	RM 125	RM 126	East Loading Docks	Tanker Filling Areas
Area	4,646 sq. ft.	5,091 sq. ft.	1,056 sq. ft.	1,850 sq. ft.	1,232 sq. ft.
Labor Hours (3-Person Crew)	16.0 hours	17.0 hours	4.0 hours	6.5 hours	4.5 hours
Pressure Washing Hours	12.0 hours	12.5 hours	3.0 hours	5.0 hours	3.5 hours
Sample Analysis Required	1 sample	1 sample	1 sample	1 sample	1 sample
Rinsate Generated for Disposal	7,200 gals.	7,500 gals.	1,800 gals.	3,000 gals.	2,100 gals.
Rinsate Transportation	2 Trucks (Vacuum)	2 Trucks (Vacuum)	1 Trucks (Vacuum)	1 Trucks (Vacuum)	1 Trucks (Vacuum)

Labor Hours. The labor hours include sweeping surfaces to clear dust, dirt and debris. Spot clean light stains. Washing surfaces with pressure washer (2,500 psi at 10-gal/min), clean-up time and coordination of shipment of rinsate off-site for proper disposal. Includes planning, area preparation and protection, setup and cleanup and auxiliary administrative activities such as labeling, loading, manifesting, etc. Hepaco, July-2022 Agreement.

Pressure Washing Hours. It is estimated that 80% of the total hours necessary to complete decontamination activities will actually be used for pressure washing activities.

Rinsate Generated. The amount of rinsate anticipated to be generated and required to be properly collected and disposed is based upon the pressure washing hours at 10 gal/min. Hepaco May, 2021 pricing.

Sample Analysis Required. Analytical to include VOC, Semi-VOCs, RCRA Metals TCLP, Flashpoint and pH.

Section B.2: Cost	RM 124	RM 125	RM 126	East Loading Docks	Tanker Filling Areas
Cost: Labor Hours (3-Person Crew)	\$3,715.20	\$3,947.40	\$928.80	\$1,509.30	\$1,044.90
Cost: Equipment	\$893.76	\$949.62	\$223.44	\$363.09	\$251.37
Cost: Personal Protective Equipment	\$270.00	\$270.00	\$135.00	\$270.00	\$135.00
Cost: Sample Analysis	\$665.00	\$665.00	\$665.00	\$665.00	\$665.00

Date: July 27, 2022

Revision: 00

**Enviro-Safe Resource Recovery**

Appendix T-02 - Hazardous Waste Management Units  
Closure Cost Summary

Cost: Disposal of Rinsate Generated	\$360.00	\$375.00	\$90.00	\$150.00	\$105.00
Cost: Transportation of Rinsate	\$300.00	\$300.00	\$150.00	\$150.00	\$150.00
<b>TOTAL</b>	<b>\$6,203.96</b>	<b>\$6,507.02</b>	<b>\$2,192.24</b>	<b>\$3,107.39</b>	<b>\$2,351.27</b>

Cost: Labor. The labor cost per hour is \$232.20 which includes a Project Manager (\$106.00/hr.), Equipment Operator (\$69.60/hr.) and Technician (\$56.60/hr.). Hepaco, July-2022 Pricing and Agreement.

Cost: Equipment. The equipment cost is \$55.85 per hour of total labor hours for a Pressure Washer (2,500 psi at 10 gal/min). Hepaco, July-2022 Pricing and Agreement.

Cost: Personal Protective Equipment. The PPE cost is \$45.00 per day per employee (Level D). Hepaco, July-2022 Pricing and Agreement.

Cost: Sample Analysis. EMT Analytical Price – VOC (\$130), Semi-VOCs (\$235), RCRA Metals TCLP (TCLP \$190), Flashpoint (\$80), and pH (\$30). EMT May, 2022 pricing.

Cost: Disposal of Rinsate Generated. The disposal cost for non-hazardous rinsate is \$0.05/gal. Crystal Springs, 2022 pricing.

Cost: Transportation and Disposal of Rinsate. A cost of \$150.00 per tanker truck is used for transportation and disposal from Germantown, Wisconsin to Milwaukee, Wisconsin for the waste. Crystal Springs, 2022 pricing.

**Section C: Miscellaneous Expenses**

<b>Section C.1: Specifications</b>	<b>RM 124</b>	<b>RM 125</b>	<b>RM 126</b>	<b>East Loading Docks</b>	<b>Tanker Filling Areas</b>
PE Oversight	33.5 hours	37 hours	9 hours	14 hours	9.5 hours
PE Closure Report	1 Each	Included	Included	Included	Included

PE Oversight Labor Hours. A PE will be hired to be present on-site to oversee the activities conducted with the closure of the facility on a daily basis. Therefore, the total labor hours are the same as above.

PE Closure Report. There would be one closure report provided that will include the entire facility closure and therefore, there is only one total cost associated with the PE Closure Report Cost. Stantec, May-2022 pricing.

<b>Section C.2: Cost</b>	<b>RM 124</b>	<b>RM 125</b>	<b>RM 126</b>	<b>East Loading Docks</b>	<b>Tanker Filling Areas</b>
Cost: PE Oversight	\$5,527.50	\$6,105.00	\$1,485.00	\$2,310.00	\$1,567.50
Cost: PE Closure Report	Included Above	Included Above	Included Above	Included Above	Included Above
<b>TOTAL</b>	<b>\$5,527.50</b>	<b>\$6,105.00</b>	<b>\$1,485.00</b>	<b>\$2,310.00</b>	<b>\$1,567.50</b>

Cost: PE Oversight. The PE Oversight hourly rate is \$165.00/hr. Stantec, May-2022 pricing.

Cost: PE Closure Report. The cost to complete the closure report for the total facility is included as part of the hourly rate for the PE Oversight. Stantec, May-2022 pricing.

**Enviro-Safe Resource Recovery**  
**Appendix T-03 - Closure Letter of Credit**

The Letter of Credit to be provided under separate cover.

## APPENDIX U: SECONDARY CONTAINMENT

U-01 Secondary Containment Calculations

U-02 NOAA Atlas 14 Point Precipitation Frequency Estimate

U-03 Joint Sealer and Concrete Additive Specifications

U-04 Waterstops and Stormceptor System Specifications

**Enviro-Safe Resource Recovery**  
**Appendix U-01 - Secondary Containment Calculations**



# SECONDARY CONTAINMENT CALCUATIONS

For Enviro-Safe Resource Recovery

Date: August 5, 2022

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Completed by:  
The Consortium ae, LLC.  
735 N. Water Street, Suite 1228  
Milwaukee, WI 53202

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**Hazardous Waste**

The storage and secondary containment system capacities for the hazardous waste container storage and treatment areas for the facility are summarized below.

Area	Use	Floor Area	Maximum Storage <sup>(b)</sup>		Secondary Containment <sup>(c)</sup>				
			Maximum Hazardous Waste Storage Capacity		Required Containment		Largest Container Volume	Fire Suppression System Volume <sup>(d)</sup>	Net Containment Capacity <sup>(e)</sup>
			55-Gal Equivalents	Gallons	55-Gal Equivalent	Gallons	Gallons	Gallons	Gallons
RM 124 <sup>(a)</sup>	Hazardous Waste Staging and Storage	4,646	616	33,880	62	3,388	330	21,160	12,895.0
RM 125	Hazardous Waste Storage	5,091	784	43,120	78	4,312	330	Included Above	15,227.1
RM 126	Hazardous Waste Storage/Treatment	1,056	160	8,800	16	880	330	Included Above	3,076.4
<b>SUBTOTAL</b>		<b>10,793</b>	<b>1,560</b>	<b>85,800</b>	<b>156</b>	<b>8,580</b>		<b>21,160</b>	<b>31,198.5</b>
East Loading Docks	Hazardous Waste Storage	1,850	N/A	18,000	N/A	1,800	6,000	N/A	17,033.5
Tanker Fill Area #1 & #2	Hazardous Waste Storage	616	N/A	12,000	N/A	1,200	6,000	9,000	27,078.0

N/A = Not Applicable

(a) All of RM 124 can be used for temporary staging of up to 616 drums (double stacked). The west part of RM 124 can instead be used for licensed storage of up to 376 drums (double-stacked).

(b) Maximum hazardous waste storage capacity (gallons and drum count) is derived from the container/pallet layout Container Storage Map [Appendix G-08] and assumes that pallets are doubled stacked.

(c) Secondary containment capacity requirement is 10% of the total container volume or largest container volume, whichever is larger. Includes all hazardous waste in storage, all containers that are temporarily staged (less than 24 hours) and all other containers with free liquids (haz and non-haz) in storage. This provides the basis for secondary containment. Secondary containment capacities for RM 124, RM 125 and RM 126 are combined into a single containment area.

(d) Room 124, 125 and 126 have interconnected secondary containment therefore, the total net volume for foam sprinkler system discharged is used. The foam sprinkler discharge amount is 21,160.0 gals (1,058 gpm\*20-minutes discharge required per IBC-2015 5004.2.2.3).

(e) Secondary containment capacities calculation details are presented further within this document.

The Secondary Containment Map can be found under Appendix G-05.

RM 124 – HAZARDOUS WASTE STAGING AND STORAGE			
Item	Quantity	Units	Notes
Gross (Floor) Area	4,646.0	sq ft	
Secondary Storage Gross Volume	2,323.0	cubic ft	0.5ft*gross area
Anomalies (physical)	290.3	cubic ft	ramps and landings
Secondary Storage Gross Volume	2,032.8	cubic ft	
Secondary Storage Gross Volume	15,205.0	gals	1 cf = 7.48 gals
Displacement Volumes (Pallet/Drum Storage)	2,310.0	gals	77 pallet positions @ 30 gal each
Actual Spill Containment Net Volume	12,895.0	gals	
Largest Container Volume	330.0	gals	single tote
Total Storage Capacity	33,880.0	gals	77 pallets*(4) 55-gal drum ea*2 high
10% of Total for Spill Containment Required	3,388.0	gals	

Fire Suppression System Discharge	21,160.0	gals	1,058 gpm*20-minute discharge
			required per IBC-2015 5004.2.2.3

**Displacement Volumes.** The displacement in the RM 124 - Hazardous Waste Staging and Storage of any significance is the result of the use of pallets/containment pallets for the storage of containers. Pallet volume is 12.5 gallons (3.5" tall). The secondary containment depth of the building is 6" depth. Volume = (2.5" depth) x  $\pi(11.25")^2$  x 4 = 3,914 in<sup>3</sup> = 2.3 ft<sup>3</sup> x 7.48 gal/ft<sup>3</sup> = 17.2 gals. Therefore, the volume displaced for each pallet on the floor is 30-gallons. The 77 pallets include 30 pallets in the staging area of RM 124 and 47 pallets in the storage area of RM 124.

Displacement volumes for forklift wheels and other auxiliary items is limited and will not significantly impact secondary containment capacities and therefore, is not included.

**Notes**

- (1) Room 124, 125 and 126 have interconnected secondary containment therefore, the total net volume for the foam sprinkler system discharge is used.
- (2) See Secondary Containment Map (C-05) for specific details.

RM 125 – HAZARDOUS WASTE STORAGE			
Item	Quantity	Units	Notes
Gross (Floor) Area	5,091.0	sq ft	
Secondary Storage Gross Volume	2,545.5	cubic ft	0.5ft*gross area
Anomalies (physical)	116.8	cubic ft	ramps and landings
Secondary Storage Gross Volume	2,428.8	cubic ft	
Secondary Storage Gross Volume	18,167.1	gals	1 cf = 7.48 gals
Displacement Volumes (Pallet/Drum Storage)	2,940.0	gals	98 pallet positions @ 30 gal each
Actual Spill Containment Net Volume	15,227.1	gals	
Largest Container Volume	330.0	gals	single tote
Total Storage Capacity	43,120.0	gals	98 pallets*(4) 55-gal drum ea*2 high
10% of Total for Spill Containment Required	4,312.0	gals	

Fire Suppression System Discharge	21,160.0	gals	1,058 gpm*20-minute discharge
			required per IBC-2015 5004.2.2.3

**Displacement Volumes.** The displacement in the RM 125 - Hazardous Waste Storage of any significance is the result of the use of pallets/containment pallets for the storage of containers. Pallet volume is 12.5 gallons (3.5" tall). The secondary containment depth of the building is 6" depth. Volume = (2.5" depth) x  $\pi(11.25")^2 \times 4 = 3,914 \text{ in}^3 = 2.3 \text{ ft}^3 \times 7.48 \text{ gal/ft}^3 = 17.2 \text{ gals}$ . Therefore, the volume displaced for each pallet on the floor is 30-gallons.

Displacement volumes for forklift wheels and other auxiliary items is limited and will not significantly impact secondary containment capacities and therefore, is not included.

**Notes**

- (1) Room 124, 125 and 126 have interconnected secondary containment therefore, the total net volume for foam sprinkler system discharge is used.
- (2) See Secondary Containment Map (C-05) for specific details.

RM 126 - HAZARDOUS WASTE STORAGE AND TREATMENT			
Item	Quantity	Units	Notes
Gross (Floor) Area	1,056.0	sq ft	
Secondary Storage Gross Volume	528.0	cubic ft	0.5ft*gross area
Anomalies (physical)	36.5	cubic ft	ramps and landings
Secondary Storage Gross Volume	491.5	cubic ft	
Secondary Storage Gross Volume	3,676.4	gals	1 cf = 7.48 gals
Displacement Volumes (Pallet/Drum Storage)	600.0	gals	20 pallet positions @ 30 gal each
Actual Spill Containment Net Volume	3,076.4	gals	
Largest Container Volume	330.0	gals	single tote
Total Storage Capacity	8,800.0	gals	20 pallets*(4) 55-gal drum ea*2 high
10% of Total for Spill Containment Required	880.0	gals	

Fire Suppression System Discharge	21,160.0	gals	1,058 gpm*20-minute discharge
			required per IBC-2015 5004.2.2.3

**Displacement Volumes.** The displacement in the RM 126 - Hazardous Waste Storage and Treatment of any significance is the result of the use of pallets/containment pallets for the storage of containers. Pallet volume is 12.5 gallons (3.5" tall). The secondary containment depth of the building is 6" depth. Volume = (2.5" depth) x  $\Pi(11.25")^2$  x 4 = 3,914 in<sup>3</sup> = 2.3 ft<sup>3</sup> x 7.48 gal/ft<sup>3</sup> = 17.2 gals. Therefore, the volume displaced for each pallet on the floor is 30-gallons.

Displacement volumes for forklift wheels and other auxiliary items is limited and will not significantly impact secondary containment capacities and therefore, is not included.

**Notes**

- (1) Room 124, 125 and 126 have interconnected secondary containment therefore, the total net volume for foam sprinkler system discharge is used.
- (2) See Secondary Containment Map (C-05) for specific details.

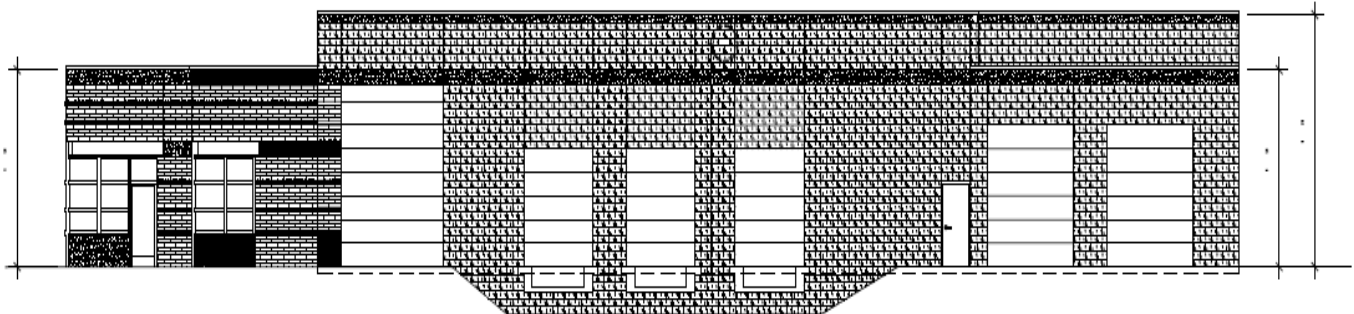
EAST LOADING DOCKS - HAZARDOUS WASTE STORAGE			
Item	Quantity	Units	Notes
Gross Area	1,850.0	sq ft	
Secondary Storage Gross Volume	2,312.5	cubic ft	(2.5 ft*gross area)/2
Anomalies (physical)	0.0	cubic ft	none present
Secondary Storage Gross Volume	2,312.5	cubic ft	
Secondary Storage Gross Volume	17,297.5	gals	1 cf = 7.48 gals
Displacement Volumes (Truck Tires)	264.0	gals	3 tankers with 24 tires
Actual Spill Containment Net Volume	17,033.5	gals	
24-Hour Rain Fall Event	4.7	in	
Area	257,040.0	sq in	144*gross area
Rain Water Containment Volume	1,208,000.0	cubic in	
Rain Water Containment Volume	699.1	cubic ft	1 cubic in = 0.0005787 cubic ft
Rain Water Containment Volume	5,229.5	gals	1 cf = 7.48 gals
Largest Container Volume	6,000.0	gals	single tanker
Total Storage Capacity	18,000.0	gals	3 tankers/trailer
10% of Total for Spill Containment Required	600.0	gals	

**Displacement Volumes.** The displacement in the east loading docks only occurs as a result of three tankers/trailers that are parked in the area. Each tanker/trailer is assumed to have eight tires. The tire diameter is 3'. Assume that ¼ of the tire volume displaces the liquid. The volume of a tire equals  $\pi \times R^2 \times t$ , where R is the radius of the tire and t is the thickness of the tire. Volume =  $(3.14) \times (1.5)^2 \times (0.83) = 5.86$  C.F. and ¼ of the tire volume = 1.47 C.F. Therefore, the volume displaced for 24 tires =  $24 \times 1.47 \times 7.48$  gallons/C.F. = 264 gallons.

**Notes**

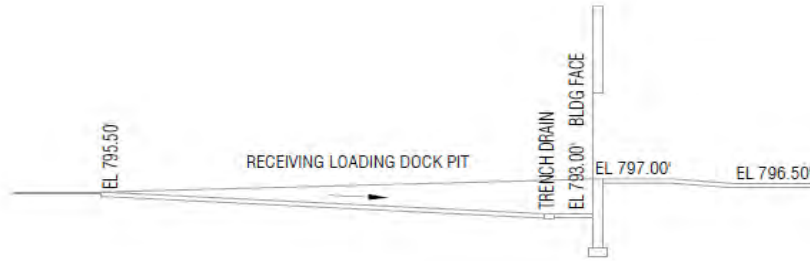
- (1) The 25-Year 25-Hour Rain Fall Event information was obtained from the NOAA Atlas 14 Point Precipitation Frequency Estimate.
- (2) See Secondary Containment Map (C-05) for specific details.

**East Elevation**



EAST ELEVATION

East Loading Dock Elevation Details



2 WIDNR Section thru Receiving Loading Dock  
SCALE: 3/32" = 1'-0"

TANKER FILLING AREA PAD #1 AND #2			
Item	Quantity	Units	Notes
Gross Area	1,232.0	sq ft	616 sq ft for each pad area
Secondary Storage Gross Volume	0.0	cubic ft	(0.0 ft*gross area)
Anomalies (physical)	0.0	cubic ft	none present

SECONDARY CONTAINMENT STRUCTURE			
Item	Quantity	Units	Notes
Gross Area	2,000.0	sq ft	
Secondary Storage Gross Volume	4,000.0	cubic ft	(2 ft*gross area)
Anomalies (physical)	0.0	cubic ft	none present
Secondary Storage Gross Volume	4,000.0	cubic ft	
Secondary Storage Gross Volume	29,920.0	gals	1 cf = 7.48 gals
Displacement Volumes (Tanks)	2,842.0	gals	2 above ground storage tanks
Actual Spill Containment Net Volume	27,078.0	gals	
24-Hour Rain Fall Event	4.7	in	
Area	576,000.0	sq in	144*gross area
Rain Water Containment Volume	2,707,200.0	cubic in	
Rain Water Containment Volume	1,566.7	cubic ft	1 cubic in = 0.0005787 cubic ft
Rain Water Containment Volume	11,718.9	gals	1 cf = 7.48 gals
Largest AGST Container Volume	18,000.0	gals	single tank
Total AGST Storage Capacity	36,000.0	gals	2 above ground storage tanks (AGSTs)
10% of AGST Total for Spill Containment Required	1,800.0	gals	

Fire Suppression System Discharge	9,000.0	gals	300 gpm*30-minutes discharge required Per NFPA 13
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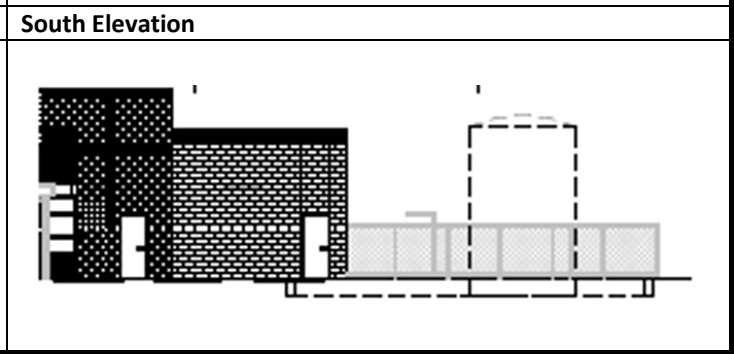
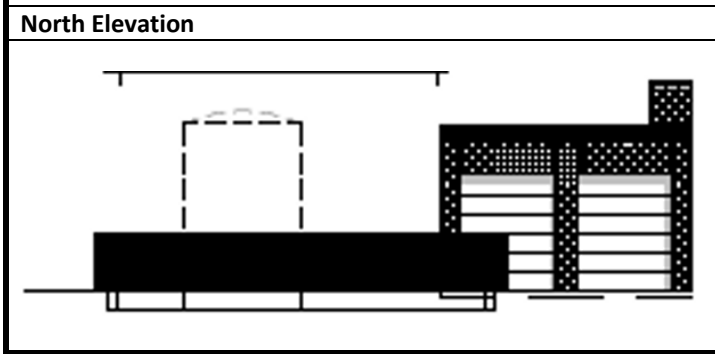
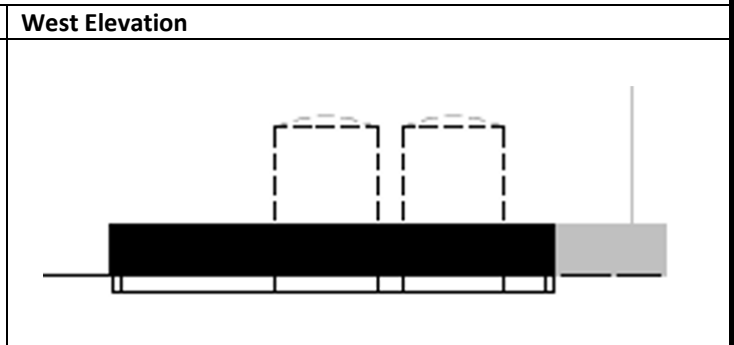
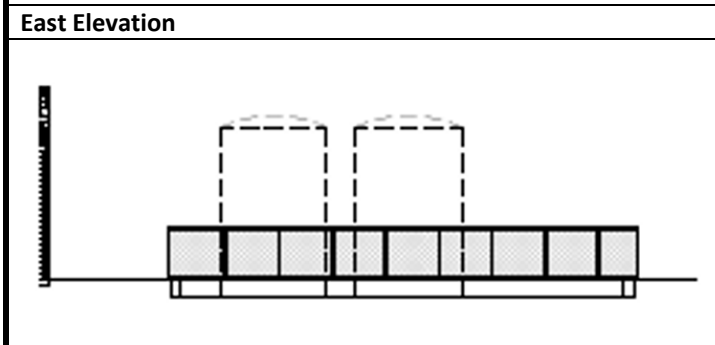
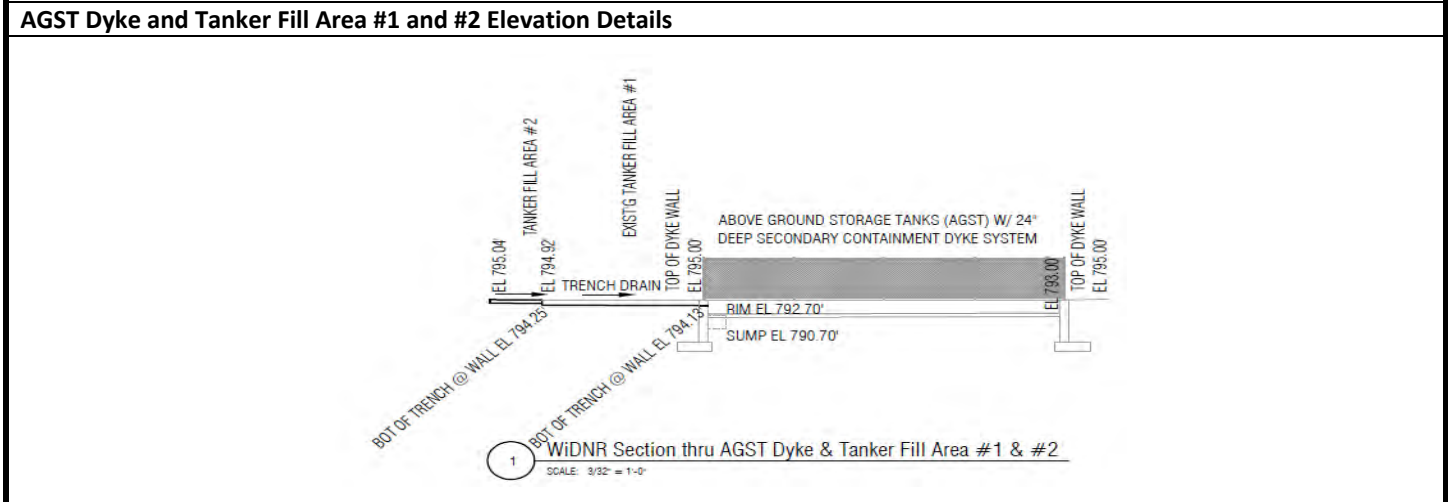
**Displacement Volumes.** The displacement for the secondary containment structure only occurs as the result of two above ground storage tanks that are located within the structure itself. Each 18,000-gallon above ground storage tank is 11 ft in diameter and 25 ft in height. Volume =  $190 \times 7.48$  gallons/C.F. = 1,421 gallons per tank. Therefore, the volume displaced for two above ground storage tanks would be 2,842 gallons.

Displacement volumes for pumps and other auxiliary items is limited and will not significantly impact secondary containment capacities and therefore, is not included.

#### Notes

- (1) The Tanker Filling Area Pad #1 and #2 does not provide containment but only conveys to the above ground storage tank container structure for spills and therefore is not contained within any of the above calculations.
- (2) The 25-Year 25-Hour Rain Fall Event information was obtained from the NOAA Atlas 14 Point Precipitation Frequency Estimate.
- (3) See Secondary Containment Map (C-05) for specific details.





**Certification**

I, Gregory Prossen, hereby certify that I am a registered Professional Engineer in the State of Wisconsin in accordance with ch. A-E 4, Wisconsin Administrative Code. Further, I hereby certify that all container containment structures meet the applicable performance standards in NR 664.0193 and NR 664.0175, Wisconsin Administrative Code. The secondary containment structures at Enviro-Safe Resource Recovery are:

- Designated and capable of detecting and collecting releases and accumulated liquids
- Sloped and designed to drain and remove liquids resulting from leaks and spills
- Designed with appropriate secondary containment capacity
- Constructed with chemical resistant water stops in all joints
- Free of gaps and cracks and provided with an impermeable interior coating

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility [112.3(d)].

Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement the SPCC Plan in accordance with the requirements of this part.



Signature

08/05/2021

Date

Gregg M. Prossen, P.E.

Name

The Consortium ae, LLC.

Title/Company

E-28075

P.E. Number



**Enviro-Safe Resource Recovery**  
**Appendix U-02 - NOAA Atlas 14 Point Precipitation Frequency Estimate**



**General Information**

- Homepage
- Progress Reports
- FAQ
- Glossary

**Precipitation Frequency**

- Data Server
- GIS Grids
- Maps
- Time Series
- Temporals
- Documents

**Probable Maximum Precipitation**

- Documents

**Miscellaneous**

- Publications
- Storm Analysis
- Record Precipitation

**Contact Us**

- Inquiries



## NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: WI

**Data description**

Data type: Precipitation depth    Units: English    Time series type: Partial duration

**Select location**

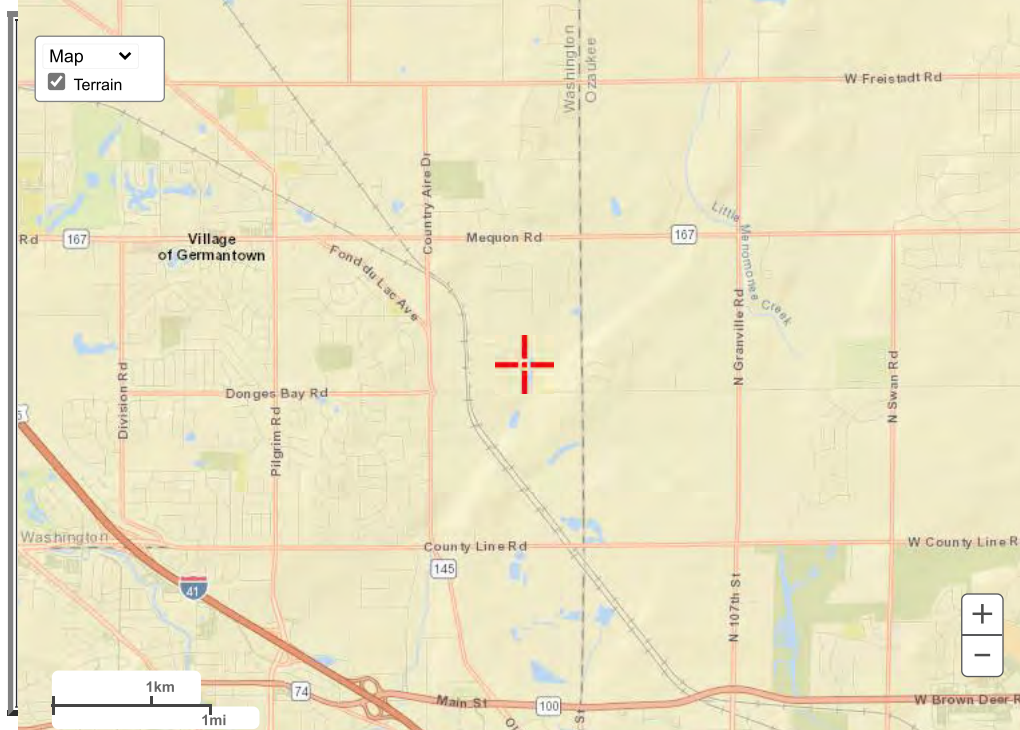
**1) Manually:**

a) By location (decimal degrees, use "-" for S and W): Latitude:  Longitude:

b) By station (list of WI stations):

c) By address

2) Use map (if ESRI interactive map is not loading, try adding the host: <https://is.arcois.com/> to the firewall, or contact us at [hdsc.uestions@noaa.gov](mailto:hdsc.uestions@noaa.gov)):



a) Select location  
Move crosshair or double click

b) Click on station icon  
 Show stations on map

**Location information:**

Name: Germantown, Wisconsin, USA\*  
 Latitude: 43.2091°  
 Longitude: -88.0710°  
 Elevation: 796.77 ft \*\*

\* Source: ESRI Maps  
 \*\* Source: USGS

**POINT PRECIPITATION FREQUENCY (PF) ESTIMATES**  
 WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION  
 NOAA Atlas 14, Volume 8, Version 2

[PF tabular](#)

[PF graphical](#)

[Supplementary information](#)

[Print page](#)

<b>PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.331 (0.257-0.413)	0.400 (0.310-0.499)	0.509 (0.393-0.637)	0.597 (0.459-0.748)	0.714 (0.533-0.905)	0.800 (0.588-1.02)	0.884 (0.634-1.15)	0.966 (0.673-1.27)	1.07 (0.724-1.43)	1.15 (0.763-1.55)
10-min	0.485 (0.376-0.605)	0.585 (0.454-0.731)	0.745 (0.576-0.932)	0.874 (0.673-1.10)	1.05 (0.780-1.33)	1.17 (0.862-1.50)	1.30 (0.929-1.68)	1.42 (0.985-1.86)	1.57 (1.06-2.09)	1.68 (1.12-2.27)
15-min	0.591 (0.459-0.738)	0.714 (0.553-0.892)	0.909 (0.703-1.14)	1.07 (0.820-1.34)	1.27 (0.952-1.62)	1.43 (1.05-1.83)	1.58 (1.13-2.05)	1.73 (1.20-2.27)	1.91 (1.29-2.55)	2.05 (1.36-2.77)
30-min	0.811 (0.629-1.01)	0.984 (0.762-1.23)	1.26 (0.973-1.57)	1.48 (1.14-1.85)	1.77 (1.32-2.25)	1.99 (1.46-2.54)	2.20 (1.58-2.85)	2.40 (1.67-3.16)	2.67 (1.80-3.56)	2.85 (1.90-3.86)
60-min	1.05 (0.812-1.31)	1.26 (0.978-1.58)	1.62 (1.25-2.02)	1.91 (1.47-2.40)	2.33 (1.75-2.97)	2.65 (1.96-3.41)	2.98 (2.14-3.88)	3.31 (2.31-4.38)	3.76 (2.55-5.05)	4.10 (2.73-5.55)
2-hr	1.28 (1.01-1.59)	1.54 (1.21-1.90)	1.97 (1.55-2.44)	2.35 (1.83-2.91)	2.88 (2.20-3.66)	3.31 (2.48-4.23)	3.76 (2.74-4.86)	4.22 (2.98-5.55)	4.86 (3.33-6.48)	5.35 (3.60-7.19)
3-hr	1.44 (1.14-1.77)	1.71 (1.35-2.10)	2.18 (1.72-2.68)	2.60 (2.05-3.21)	3.23 (2.49-4.11)	3.75 (2.83-4.78)	4.30 (3.16-5.56)	4.88 (3.48-6.41)	5.71 (3.95-7.61)	6.38 (4.30-8.52)
6-hr	1.74 (1.40-2.11)	2.01 (1.61-2.45)	2.52 (2.01-3.07)	3.00 (2.39-3.66)	3.74 (2.95-4.75)	4.38 (3.37-5.58)	5.08 (3.80-6.55)	5.85 (4.23-7.65)	6.96 (4.87-9.24)	7.87 (5.36-10.4)
12-hr	2.06	2.33	2.84	3.34	4.15	4.86	5.64	6.52	7.80	8.86

	(1.67-2.47)	(1.89-2.79)	(2.30-3.42)	(2.69-4.04)	(3.31-5.23)	(3.78-6.13)	(4.27-7.22)	(4.76-8.47)	(5.51-10.3)	(6.08-11.6)
24-hr	<b>2.35</b> (1.94-2.79)	<b>2.65</b> (2.18-3.15)	<b>3.23</b> (2.65-3.85)	<b>3.79</b> (3.10-4.53)	<b>4.68</b> (3.78-5.83)	<b>5.45</b> (4.29-6.81)	<b>6.31</b> (4.82-7.99)	<b>7.26</b> (5.36-9.34)	<b>8.64</b> (6.16-11.3)	<b>9.78</b> (6.77-12.8)
2-day	<b>2.63</b> (2.19-3.09)	<b>3.02</b> (2.52-3.55)	<b>3.74</b> (3.11-4.40)	<b>4.41</b> (3.65-5.20)	<b>5.43</b> (4.42-6.66)	<b>6.30</b> (5.01-7.76)	<b>7.25</b> (5.59-9.06)	<b>8.28</b> (6.16-10.5)	<b>9.76</b> (7.02-12.6)	<b>11.0</b> (7.66-14.2)
3-day	<b>2.89</b> (2.43-3.37)	<b>3.29</b> (2.77-3.84)	<b>4.03</b> (3.38-4.71)	<b>4.72</b> (3.94-5.53)	<b>5.77</b> (4.74-7.03)	<b>6.67</b> (5.34-8.17)	<b>7.65</b> (5.94-9.51)	<b>8.72</b> (6.52-11.0)	<b>10.2</b> (7.40-13.2)	<b>11.5</b> (8.07-14.8)
4-day	<b>3.11</b> (2.63-3.62)	<b>3.52</b> (2.98-4.10)	<b>4.28</b> (3.61-4.98)	<b>4.98</b> (4.18-5.81)	<b>6.05</b> (4.99-7.33)	<b>6.97</b> (5.60-8.49)	<b>7.96</b> (6.21-9.85)	<b>9.04</b> (6.79-11.4)	<b>10.6</b> (7.68-13.6)	<b>11.9</b> (8.36-15.2)
7-day	<b>3.65</b> (3.12-4.20)	<b>4.13</b> (3.53-4.76)	<b>4.99</b> (4.25-5.76)	<b>5.76</b> (4.89-6.67)	<b>6.92</b> (5.74-8.27)	<b>7.88</b> (6.38-9.48)	<b>8.90</b> (6.99-10.9)	<b>10.0</b> (7.56-12.5)	<b>11.6</b> (8.43-14.7)	<b>12.8</b> (9.09-16.3)
10-day	<b>4.13</b> (3.56-4.73)	<b>4.68</b> (4.03-5.36)	<b>5.62</b> (4.83-6.45)	<b>6.45</b> (5.51-7.42)	<b>7.67</b> (6.39-9.08)	<b>8.66</b> (7.05-10.3)	<b>9.70</b> (7.65-11.8)	<b>10.8</b> (8.20-13.4)	<b>12.3</b> (9.03-15.5)	<b>13.6</b> (9.66-17.2)
20-day	<b>5.64</b> (4.93-6.37)	<b>6.30</b> (5.51-7.13)	<b>7.41</b> (6.45-8.40)	<b>8.34</b> (7.23-9.49)	<b>9.66</b> (8.12-11.2)	<b>10.7</b> (8.79-12.6)	<b>11.7</b> (9.35-14.0)	<b>12.8</b> (9.82-15.7)	<b>14.3</b> (10.5-17.8)	<b>15.4</b> (11.1-19.4)
30-day	<b>6.95</b> (6.13-7.81)	<b>7.74</b> (6.82-8.70)	<b>9.01</b> (7.92-10.1)	<b>10.1</b> (8.78-11.4)	<b>11.5</b> (9.69-13.2)	<b>12.5</b> (10.4-14.6)	<b>13.6</b> (10.9-16.1)	<b>14.7</b> (11.3-17.7)	<b>16.1</b> (11.9-19.8)	<b>17.1</b> (12.4-21.4)
45-day	<b>8.65</b> (7.70-9.66)	<b>9.65</b> (8.57-10.8)	<b>11.2</b> (9.92-12.5)	<b>12.4</b> (10.9-13.9)	<b>14.0</b> (11.9-16.0)	<b>15.2</b> (12.6-17.5)	<b>16.3</b> (13.1-19.1)	<b>17.3</b> (13.4-20.7)	<b>18.6</b> (13.8-22.8)	<b>19.5</b> (14.2-24.3)
60-day	<b>10.1</b> (9.07-11.2)	<b>11.3</b> (10.1-12.6)	<b>13.2</b> (11.8-14.7)	<b>14.6</b> (13.0-16.3)	<b>16.4</b> (14.0-18.5)	<b>17.7</b> (14.7-20.2)	<b>18.8</b> (15.2-21.9)	<b>19.8</b> (15.3-23.6)	<b>21.0</b> (15.6-25.5)	<b>21.7</b> (15.9-27.0)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Estimates from the table in CSV format: [Precipitation frequency estimates](#)

Main Link Categories:  
[Home](#) | [OWP](#)

**Enviro-Safe Resource Recovery**  
**Appendix U-03 - Joint Sealer and Concrete Additive Specifications**



### 1. PRODUCT NAME

XYPEX Concrete Waterproofing  
by Crystallization™

### 2. MANUFACTURER

XYPEX Chemical Corporation  
13731 Mayfield Place  
Richmond, BC, Canada V6V 2G9  
☎ Tel: (800) 961-4477  
☎ Tel: (604) 273-5265 BC  
Fax: (604) 270-0451  
E-mail: info@xypex.com  
Web: www.xypex.com

### 3. PRODUCT DESCRIPTION

#### Basic Use

XYPEX is a unique chemical treatment for the waterproofing and protection of concrete. Among its many uses, XYPEX is suitable for waterproofing reservoirs, sewage and water treatment tanks, tunnels, manholes, underground vaults, foundation walls and parking decks. It can be used on either poured-in-place concrete or concrete block and can be applied to either the interior or exterior surface with equal results.

#### Characteristics

XYPEX waterproofs underground structures from the inside against hydrostatic pressure. By the process of diffusion and because the chemicals in XYPEX have an affinity with water, the crystalline formation migrates throughout the pores and capillary tracts of concrete even against strong hydrostatic pressure.

XYPEX protects concrete and reinforcing steel. The XYPEX treatment is highly resistant to most aggressive substances, pH 3 – 11 constant contact, pH 2 – 12 periodic contact. By preventing the intrusion of chemicals, salt water, sewage and other harmful materials, XYPEX protects concrete and reinforcing steel from deterioration and oxidation. The concrete is also protected against spalling, efflorescence, popouts and other damages caused by weathering, bleed-

ing of the salts and internal expansion and contraction during the freeze/thaw cycle.

XYPEX permits concrete to breathe. The XYPEX crystalline formation has fixed-size air spaces so small that water cannot pass through. It does allow the passage of air and vapor, thus the concrete is able to breathe and become thoroughly dry, preventing moisture vapor build-up.

XYPEX products are nontoxic. They have been approved by NSF International, US Environmental Protection Agency, Agriculture Canada and many other government health agencies throughout the world for use on concrete structures that hold potable water or are in contact with foodstuffs.

#### Advantages

- Not just a surface coating - Not dependent upon continuity of membrane for waterproofing action
- Seals hairline cracks up to 1/64 in. (0.4 mm)
- No surface priming or leveling required
- Cannot puncture, tear or come apart at the seams
- Does not require protection during back-filling or during placement of steel, wire mesh or other materials
- Can be applied to moist or green concrete
- Less costly to apply than most other waterproofing methods

#### Composition & Materials

XYPEX is manufactured in the form of a dry powder compound consisting of portland cement, very fine treated silica sand and various active proprietary chemicals.

When mixed with water and applied as a cementitious coating, the active chemicals in XYPEX cause a catalytic reaction which generates a nonsoluble crystalline formation of dendritic fibers within the pores and capillary tracts of concrete. Thus, the concrete itself becomes permanently sealed against the penetration of water or liquids from any direction.

#### Types

XYPEX crystalline waterproofing technology is available in three forms:

- As a coating – for new or existing structures
- As a dry shake material – for new horizontal surfaces
- As an admixture – included in the concrete mix at the time of batching

#### XYPEX CONCENTRATE

Used as a single coating on above or below-grade concrete, or as the first of a 2 coat application where two coats are required. See XYPEX Specification Manual. Also used as a Dry-Pac for sealing construction joints and for repair of cracks, faulty construction joints and honeycombing. XYPEX CONCENTRATE is the most chemically potent of the XYPEX crystalline waterproofing materials.

#### XYPEX MODIFIED

Used as a second coat to reinforce XYPEX CONCENTRATE where two coats are required and as a single coat for exterior dampproofing.

#### XYPEX CONCENTRATE DS-1 AND DS-2

Dry shake formulations designed for application on fresh horizontal concrete prior to finishing operations.

#### XYPEX ADMIX C-500, C-1000 AND C-2000

Used as an integral waterproofing admixture which is included in the concrete mix at the time of batching.

#### XYPEX PATCH'N PLUG

Fast setting, nonshrink, high-bond-strength hydraulic cement compound for concrete repairs. Stops flowing water in seconds. PATCH'N PLUG seals cracks and tie holes. It is also used for the general repair or patching of concrete. PATCH'N PLUG can be used in conjunction with XYCRYLIC ADMIX to increase the compressive strength and bond strength of existing concrete.

#### XYPEX MEGAMIX I AND MEGAMIX II

MEGAMIX I is a thin parge coat for the waterproofing and resurfacing of vertical concrete and masonry surfaces. MEGAMIX II is a thick repair mortar used for patching and resurfacing deteriorated concrete, whether vertical or overhead. MEGAMIX II has been specifically formulated as a one-component mortar to produce superior bond, low shrinkage, high strength and durability. Both Megamix products











## TECHNICAL DATA SHEET – POLYSPEC® 196BA

Revised: 4/2018

### DESCRIPTION

PolySpec 196BA modifies the surface of polysulfides to provide bond sites that allow improved adhesion of fluoroelastomer coatings to the polysulfide surface.

### TYPICAL APPLICATION

PRIMER	THIOKOL® 5050 Primer @ 3–5 mils (concrete) 2-3 mils (steel)
BACKER ROD	Customer supplied
SEALANT	THIOKOL® 2235M
BONDING AGENT	PolySpec 196BA @ 1-2 mils
BASECOAT	PolySpec 196SL @ 20-25 mils WFT
TOPCOAT	PolySpec 196SL @ 20-25 mils WFT

### STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 65-80°F
APPLICATION TEMPERATURE, AMBIENT	50-95°F
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5° F above dew point
SHELF LIFE	60 days
PROVIDED STORAGE ENVIRONMENT GUIDELINES ARE FOLLOWED	60 days
DRY TIME, @ 77°F	16 hours

*Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65°F to 80°F prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.*

### BENEFITS

- One component
- Wipe-on application

### RECOMMENDED USES

- Used to promote adhesion of fluoroelastomer coatings and sealants

**GENERIC DESCRIPTION:** Bonding Agent

**STANDARD COLORS:** Amber

**PACKAGING:** 2-Ounce Unit

# POLYSPEC® 196BA

INDUSTRIAL JOINT SYSTEM, BONDING AGENT FOR POLYSPEC® 196SL OVER POLYSULFIDE SEALANT

#### SURFACE PREPARATION

- Apply only to cured dry and sound sealant surfaces.
- Sealant may need to be solvent wiped prior to installation to remove dust, dirt, oils and contaminants.

#### INSTALLATION STEPS

1. Using a clean white rag, apply a very thin (1–2 mils WFT maximum) layer of Bonding Agent directly to the exposed polysulfide sealant surface.  
**NOTE:** Excess bonding agent can weaken adhesion.
2. Allow to dry for a minimum 16 hours.  
**NOTE:** The 196BA will appear to dry instantly. The 16 hour dry time is necessary, however, for reaction between the polysulfide sealant and bonding agent to occur.  
**NOTE:** Shorter drying time may be possible with the introduction of a heat source, but results should be evaluated before proceeding with large scale application.
3. Apply fluoroelastomer coating/sealant. See data sheet for detailed instructions.
4. Always wear gloves when using this product.

Premixed / DOC PS196BA-TDS

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## TECHNICAL DATA SHEET – POLYSPEC® 196SL

Revised: 4/2018

### DESCRIPTION

PolySpec 196SL is a high performance fluoroelastomer coating for use over THIOKOL® Sealants where increased chemical resistance is required. It is recommended for resistance to many aggressive chemicals at elevated temperatures.

### TYPICAL APPLICATION

PRIMER	THIOKOL® 5050 Primer @ 3–5 mils (concrete) 2–3 mils (steel)
BACKER ROD	Customer supplied
SEALANT	THIOKOL® 2235M
BONDING AGENT	PolySpec 196BA @ 1–2 mils
BASECOAT	PolySpec 196SL @ 20–25 mils WFT
TOPCOAT	PolySpec 196SL @ 20–25 mils WFT

### PERFORMANCE DATA

TENSILE STRENGTH (ASTM D - 638)	900 psi
ELONGATION (ASTM D - 2370)	150%
PEEL STRENGTH (ASTM C-794)	100 lbs

### BENEFITS

- Retains flexibility even as concrete moves
- Resistant to aggressive chemicals at service temperatures from -40°F to 400°F
- Resistant to ozone, sunlight and UV radiation, maintaining superior bond and flexibility in outdoor applications
- Achieves chemical resistance benefits off fluoroelastomer sealants at a lower cost
- Excellent chemical resistance to concentrated sulfuric acid, 73% nitric acid, phosphoric and hydrochloric acid; also resists petroleum products, many chlorinated solvents and aggressive chemicals such as aniline and phenol

### RECOMMENDED USES

- Chemical containment dikes exposed to aggressive chemical spills
- Chemical process areas - Chemical plants - Semiconductor facilities
- Hazardous waste treatment, storage and unloading areas
- Truck and rail loading/unloading areas

### GENERIC DESCRIPTION

Fluoroelastomer

**STANDARD COLORS:** Black

**PACKAGING:** 1-Quart Unit

**MIX RATIO:** 1R:1H

# POLYSPEC® 196SL

## INDUSTRIAL JOINT SYSTEM, CHEMICAL RESISTANT COATING

**COVERAGE:**

20 ft<sup>2</sup> / gallon @ 40 mils WFT (includes two coats @ 20 mils WFT each)  
16 ft<sup>2</sup> / gallon @ 50 mils WFT (includes two coats @ 25 mils WFT each)

**STORAGE & INSTALLATION**

STORAGE ENVIRONMENT	Dry area, 65-80°F
APPLICATION TEMPERATURE, AMBIENT	50-95°F
SERVICE TEMPERATURE	-40°-400°F
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5°F above dew point
SHELF LIFE	6 months
POT LIFE, @ 77°F	4 hours
FULL SERVICE, @ 77°F	3-5 days

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65°F to 80°F prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

**CONSIDERATIONS & LIMITATIONS**

1. PolySpec 196SL is suited for indoor and outdoor use.
2. PolySpec 196SL is not recommended for ketone solvents and esters (such as ethyl acetate) or strong alkaline compounds.
3. Do not thin with solvents unless advised to do so by ITW Polymers Sealants North America, Inc.
4. Confirm product performance in specific chemical environment prior to use.
5. Prepare substrate according to "Surface Preparation" portion of this document.
6. Always use protective clothing, gloves and goggles during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Safety Data Sheet for detailed safety precautions.
7. For industrial/commercial use. Installation by trained personnel only.

**SURFACE PREPARATION**

**CONCRETE:** Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.

- New concrete should be cured a minimum of 28 days.
- Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
- Remove any laitance or weak surface layers.
- Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
- Surface profile shall be CSP-3 to CSP-5 meeting ICRI (International Concrete Repair Institute) standard guideline
- #03732 for coating concrete, producing a profile equal to 60-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- Moisture vapor transmission should be 3 a 24 hour time period, as confirmed through a calcium chloride test, as per ASTM E-1907. Quantitative relative humidity (RH) testing, ASTM F-2170, should confirm concrete RH results < 75%.
- All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.

Refer to PolySpec Surface Preparation Guidelines for more details.

**INSTALLATION STEPS**

**NOTE:** This product is typically installed as part of a THIOKOL Sealant System. Refer to THIOKOL 2235M or THIOKOL 2235SL technical data sheet for detailed sealant application instructions.

1. Using a clean white rag, apply a very thin (1-2 mils WFT maximum) layer of Bonding Agent directly to the exposed polysulfide sealant surface.  
**NOTE:** Excess bonding agent can weaken adhesion
2. Allow to dry for a minimum 16 hours.  
**NOTE:** The 196BA will appear to dry instantly. The 16 hour dry time is necessary, however, for reaction between the polysulfide sealant and bonding agent to occur.
3. Mask off the edges of the expansion joint using masking or duct tape, leaving 1/4" to 1/2" of concrete exposed.
4. PolySpec 196SL Component A Resin should be premixed prior to using due to possible pigment settling that may occur during transportation and storage. Using a broad spatula or paint stick, scrape the bottom and sides of the can thoroughly and feel for any undispersed materials clinging to the spatula.
5. Slowly pour Component B Hardener into the resin. Mix at low speed to avoid introducing substantial amounts of air into the liquid.
6. Cover the container and allow the catalyzed material to rest approximately 10 minutes. This will allow any air entrapped during mixing to escape.  
**NOTE:** Keep the accelerated material covered when not in use. Air exposure increases the viscosity of the material.
7. Apply a 20-25 mil WFT coat of PolySpec 196SL by brush or roller.
8. Allow the first coat to dry for 20-30 minutes before applying a second coat of PolySpec 196SL.  
**NOTE:** Keep the accelerated material covered when not in use. Air exposure increases the viscosity of the material.
9. Pull the masking tape 10-15 minutes after the second coat is applied.
10. Always wear gloves when using this product.

C-R/H / DOC PS196SL-TDS  
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PRODUCT DATA

9 09 67 23 **Resinous  
Flooring**

# UCRETE® WR

Polyurethane concrete for forming  
cove bases and renovating walls

### Description

Ucrete® WR is a four-component polyurethane-concrete material. It is used with other Ucrete® products to form cove bases. Ucrete® WR applies by trowel and yields excellent results; it can be installed to a depth of 1/8" (3 mm) in a single lift or to greater thicknesses in multiple lifts. It is extremely tough and has many physical properties that exceed those of typical concrete.

### Yield

For coverage rates refer to the Ucrete® Contractor Installation Guideline.

### Packaging

Part 1: 1 qt (0.95 L) cans

Part 2: 1 qt (0.95 L) cans

Part 3: 24 lb (10.7 kg) bag

Part 4: 1 lb (0.4 kg) pigment packs

### Colors

Red, gray, cream, green, black, blue and charcoal.

Because Ucrete® WR is a colored polyurethane concrete, color uniformity cannot be completely guaranteed from batch to batch. Do not mix batches within a single area.

### Shelf Life

Part 1:

6 months when properly stored

Parts 2 and 3:

1 year when properly store

Part 4:

2 years when properly stored.

### Features

- Fast curing
- Unaffected by freeze-thaw cycles
- Solvent free
- 30 years of project references
- Excellent impact and abrasion resistance
- Wide temperature service range from -50 to 235° F (-45 to 113° C)
- Can be applied to 7 – 10 day old concrete
- Chemical resistant
- Extremely high bond strength
- Coefficient of thermal expansion similar to concrete

### Benefits

- Minimizes down time
- For interior or exterior use
- Low odor; VOC compliant
- Proven track record
- Handles heavy traffic
- Exceeds that of typical epoxy overlays
- Accelerates work schedules
- Tolerates organic and inorganic acids, alkalis, and salts
- Reduces shear at bond line
- Prevents shear at bondline

### Storage

Store and transport in unopened containers in a clean, dry area at stable temperatures approximating 65° F (18° C).

### Where to Use

#### APPLICATION

- To protect drains, tank bases, sumps, containment pits, curbs, and other vertical surfaces
- Where severe conditions exist—high impact pressure, thermal shock, and chemical exposure
- Use with all Ucrete® flooring products
- Chemical processing facilities
- Meat, poultry, and dairy plants
- Bakeries
- Confectionery-packaging areas

- Food warehouses
- Textile-production sites
- Precious-metal refineries
- Pharmaceutical facilities
- Freezers and refrigerated storage areas

#### LOCATION

- Interior and exterior applications

#### SUBSTRATE

- New and aged concrete; when applying over other surfaces, contact BASF Technical Service

## Technical Data

### Composition

Ucrete® WR is a four-component polyurethane-concrete cove-base material.

### Compliances

- USDA accepted for use in federally inspected meat and poultry plants in the USA
- Ministry of Agriculture, Canada, accepted for use in food establishments in Canada
- British Standard Specifications (BSS), for use in the U.K.

### Test Data

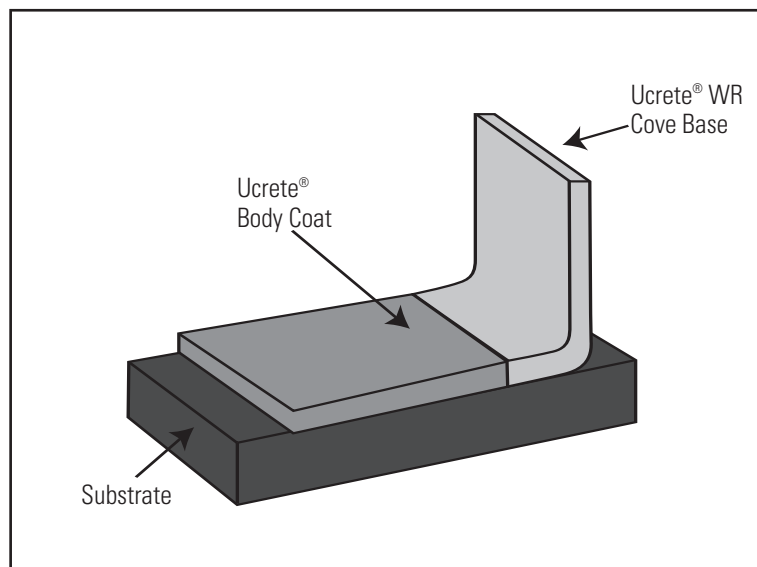
PROPERTY	RESULTS	TEST METHODS
<b>Compressive strength</b> , psi (MPa)	7,000 (48.3)	ASTM C 579
<b>Tensile strength</b> , psi (MPa)	1,000 (5.5)	ASTM C 307
<b>Coefficient of thermal expansion</b> , in/in/° F (cm/cm/° C)	1.1 x 10 <sup>-5</sup> (2.0 x 10 <sup>-5</sup> )	ASTM C 531
<b>Density</b> , lb/ft <sup>3</sup> (g/cm <sup>3</sup> )	130 (2.08)	ASTM C 905
<b>Resistance to fungi growth</b>	Passes, rating of 1	ASTM G 21
<b>Impact resistance</b>	No visible damage or deterioration at min.160 in-lb	ASTM D 2794
<b>Compressive modulus</b> , psi (MPa)	1.7 x 10 <sup>5</sup> (1,170)	ASTM C 469
<b>Flexural strength</b> , psi (MPa)	2,200 (15.2)	ASTM C 580
<b>Modulus of elasticity</b> , psi (MPa)	1.7 x 10 <sup>5</sup> (1,170)	ASTM C 469
<b>Thermal conductivity</b> , BTU-in/in-ft <sup>2</sup> °F (W/mK)	8 (1.2)	ASTM C 177
<b>Water absorption</b> , %	< 0.1	ASTM C 413
<b>Abrasion resistance</b> , g loss; CS-17 Wheel, 1,000 cycles	0.07	ASTM D 4060
<b>Resistance to elevated temperatures</b>	No flow or softening	MIL-D-3134
<b>Adhesion</b> , psi (MPa)	400 (2.8) Cohesive / adhesive failure	ASTM D 4541

### Chemical Resistance

In accordance with ASTM D 1308, Ucrete® WR will resist exposure for up to 48 days at 72° F (22° C) for the following chemicals.

- Dilute mineral acids, including hydrochloric (< 35%), phosphoric (< 50%), and sulfuric (< 30%)
- Alkalies, including potassium hydroxide to a 50% concentration
- Some dilute organic acids such as acetic (30%), formic, citric, and uric
- Fats, oils, and sugars
- Mineral oils, diesel fuel, kerosene, and gasoline
- Most organic solvents, including aliphatic and aromatic hydrocarbons and alcohol

NOTE: Full chemical resistance is achieved after curing for 7 days. For chemical resistance to a specific compound, consult the Ucrete® Chemical Resistance Guide for this flooring system. Contact your BASF representative for more information.



### How to Apply

Ucrete® systems are installed by approved contracting firms who have completed the manufacturer's training workshops. Ucrete® is a globally branded product line with industry synergies around the world.

The following is only a summary of the installation techniques used by your Ucrete® approved contractors. Refer to the Ucrete® Contractor Installation Guideline for more information.

### Surface Preparation

The success or failure of any application depends on proper preparation of the substrate. Ucrete® recommends a clean, sound substrate free of all surface contaminants. For WR at 1/8", profile to ICRI CSP 3 – 4. For WR at 3/16", profile to ICRI CSP 4–5. For WR at 5/16", profile to CSP 5 – 6.

### Application

1. Prime the surface with the appropriate primer. See the Ucrete® Contractor Installation Guideline for details.
2. Mix the 4 components of Ucrete® WR using a mechanical mixer. The materials are supplied in pre-measured containers.
3. Trowel Ucrete® WR at a depth of 1/8" (3 mm) per lift. Use multiple lifts for thicknesses greater than 1/8" (3 mm). See the Ucrete® Contractor Installation Guide for additional information.

### Maintenance

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance, and reduce any tendency to retain dirt. Ucrete® WR will withstand steam-cleaning, high-pressure hot-water washdowns (2,500 psi [17.2 MPa] at 180° F [82° C]) along with a wide range of decontamination and degreasing materials.

### For Best Performance

- Substrates must be structurally sound, clean, dry, and free of any foreign matter that could inhibit adhesion.
- Do not apply at temperatures below 40° F (4° C) or above 85° F (29° C) or if the relative humidity is above 85%.
- Do not expose the Ucrete® WR to any chemicals until fully cured (12 – 24 hours at 70° F [21° C]). When temperatures fall below 50° F (10° C), curing time could exceed 48 hours to reach full operational strength.
- Do not apply Ucrete® WR to unreinforced drywall, asphalt or bitumen substrates, glazed tile, nonporous brick or tile, magnesite, copper, aluminum, existing coatings, epoxies, or polyesters.
- The architect and owner should address cove design with the flooring contractor before the job starts.
- BASF representatives and flooring specialists are available to assist you in the selection of the proper flooring system. Call 1-800-243-6739 for in-house and field technical assistance.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

### Health, Safety and Environmental

Read, understand and follow Material Safety Data Sheets and product labels for all components of this flooring system prior to use. The MSDS can be obtained by searching for them on [www.BuildingSystems.BASF.com](http://www.BuildingSystems.BASF.com), e-mailing your request to [basfbscst@basf.com](mailto:basfbscst@basf.com) or calling 800/433-9517. Use only as directed.

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# Synthacalk™ GC2+

## Two-Part Polysulfide Rubber Sealant

## Specification Data Sheet



### 1. BASIC USES

Synthacalk™ GC2+ provides a durable, elastomeric, weather-tight seal for caulking joints in commercial and industrial projects. It is particularly effective where exposure to solvents or chemicals are anticipated.

### 2. MANUFACTURER

Pecora Corporation  
165 Wambold Road  
Harleysville, PA 19438  
Phone: 215-723-6051  
800-523-6688  
Fax: 215-721-0286  
Website: www.pecora.com

### 3. PRODUCT DESCRIPTION

**Typical Applications:** Synthacalk™ GC2+ is a two part, polysulfide, non sag sealant that maintains an effective bond between materials of similar or dissimilar porosities, surface texture, or expansion coefficients. Typical applications include swimming pools, fountains, cooling towers fuel and chemical storage tanks, wastewater treatment and petrochemical plants.

**Limitations:** Synthacalk™ GC2+ is not recommended for:

- Structural or butt glazing.
- Joints less than 1/4" (6 mm) in width or depth.
- Certain architectural paints and finishes without prior testing.

#### PACKAGING

- 1-1/2gallon (3.8L) unit  
Consisting of base and activator nested in 2-gallon pail.)

#### COLOR

- Dark Grey

### 4. TECHNICAL DATA

**Applicable Standards:** Synthacalk™ GC2+ meets or exceeds all aspects of Federal Specification TT-S-00227E, Type II, Class A in all respects except Section 3.5.7, "Stain and Color Change", ASTM

C920, Type M, Grade NS, Class 25, Use, NT, T, M, G, A, with the exception of ASTM C510 "Stain and Color Change", Also exceeds the test requirements of ASTM C1247 for sealants exposed to continuous immersion in liquids and NSF Standards 61, Section 6 for Joining and Sealing Materials.

Synthacalk™ GC2+ two component joint sealant is resistant to the effects of sunlight, rain, snow, ozone, aging, shrinkage, and the daily and seasonal cyclic changes in temperature, even after years of exposure.

### 5. INSTALLATION

**Joint Design:** The minimum width of the joint should be 4 times the anticipated movement, but not less than 1/4" (6 mm). Maximum recommended width is 1" (24 mm). The depth of the joint should be no more than one-half the width without exceeding the minimum/maximum limits. Maximum depth should be 1/2" (12 mm). For additional information, contact Pecora's Technical Services Department.

**Surface Preparation:** Joint interface must be clean, dry, and free from oils, loose mortar, laitance, waterprooings, and other contaminants. A thorough grinding, sandblasting, or solvent cleaning may be required to expose clean, sound surfaces.

**Priming:** Synthacalk™ P53VOC primer must be applied to joint surfaces. Sealant must be applied after primer has dried, but within 8 hours after application.

**Joint Backing:** Backer rod is necessary to control depth of sealant and provide

a base for tooling pressure. Backer rods should be closed-cell polyethylene foam. Use a size that will compress at least 25% when inserted into the joint. In joints too shallow for backer rod, a bond-breaker tape should be used to prevent three sided adhesion. (Typical bond breakers are polyethylene tape or coated papers).

**Application:** Synthacalk™ GC2+ is supplied in a non-sag consistency which will gun easily with conventional caulking equipment. Fill joint completely, using standard caulking equipment and tool immediately. Proper width to depth ratios must be maintained. Thorough blending of the base and activator components is essential for optimum sealant performance. Remove the Activator (Part A) from the Base (Part B) container. Also, be sure to remove the polyethylene sheet or tray. Before adding Part A, mix Part B with a Pecora #2 mixing paddle with a low speed, heavy duty electric drill. Then, add Part A to Part B and mix for six (6) minutes, or until the material is completely blended, scraping down the sides of the container and mixing paddle periodically during mixing.

**NOTE:** Do not mix base and activator components from one shipment with components from another.

**Application Life:** 1 hour at 75° F (24° C); higher temperatures shorten application life. Substrate temperature must range between 50° F (10° C) and 110° F (43° C).

**Shelf Life:** One year in original, unopened containers stored at temperatures lower than 80° F (26° C).

### TYPICAL PHYSICAL PROPERTIES at 77°F (25°C), 50% RH

Test Property	Value	Test Procedure
Specific Gravity, mixed (g/ml)	1.70	ASTM D70
Solids (%)	100	ASTM C1250
Joint Movement (%)	+/-25	ASTM C719
Hardness (Shore A)	25-30	ASTM C661
Work Life (hours)	1	Pecora Corporation
Tack-Free (hours)	<24	ASTM C679
Elongation (%)	500-550	ASTM D412
Tensile Strength (psi)	150-200	ASTM D412
100% Modulus (psi)	50	ASTM D412
200% Modulus (psi)	80	ASTM D412

**Tooling:** Tooling is recommended immediately after application to ensure full contact with the joint interfaces. Dry tooling is preferred. Care should be taken to avoid contamination of open joints.

**Clean Up:** Remove Synthacalk™ GC2+ from equipment before it cures. Recommended solvents are MEK\*, Toluene\* or Xylene\*. These solvents are not effective after cure. Cured material may be removed by cutting with sharp tools, sandpapering or softening with chlorinated solvents\*.

*\*(Solvents mentioned are toxic and flammable. Observe solvent manufacturer's precautions and refer to Safety Data Sheets).* Allow Synthacalk™ GC2+ to attain a complete cure before filling caulked area with water (7 days minimum). Surface of Synthacalk™ GC2+ can be painted after complete cure.

**Precautions:** Wear gloves or a barrier hand cream. Avoid direct contact with material; do not take internally. Remove promptly from skin with a commercial hand cleaner before eating or smoking. Avoid inhaling vapors.

**FOR PROFESSIONAL USE ONLY.  
KEEP OUT OF THE REACH  
OF CHILDREN.**

## 6. AVAILABILITY AND COST

Pecora products are available from our plants and warehouses, or from stocking distributors in all major cities. For the name and telephone number of your nearest representative call 800-523-6688 or visit our website at [www.pecora.com](http://www.pecora.com).

## 7. WARRANTY

Pecora Corporation warrants its products to be free of defects. Under this warranty, we will provide, at no charge, replacement materials for, or refund the purchase price of, any product proven to be defective when installed in accordance with our published recommendations and in application considered by us as suitable for this product. This warranty is in lieu of any and all other warranties, expressed or implied, and in no case will Pecora be liable for incidental or consequential damages.

## 8. MAINTENANCE

If the sealant is damaged and the bond is intact, cut out the damaged area and recaulk. No primer is required. If the bond has been affected, remove the sealant, clean and prepare the joint in accordance with the instructions under "INSTALLATION".

## 9. TECHNICAL SERVICES

Pecora representatives are available to assist you in selecting an appropriate product and to provide on-site application instructions or to conduct jobsite inspections. For further information and assistance, please call our Technical Services department at 215-723-6051 or 800-523-6688.

## 10. FILING SYSTEMS

<http://www.4specs.com>

07 10 00 Waterproofing  
07 92 00 Sealants



### CHEMICAL RESISTANCE CHART

This data should only be used as a guide. It is recommended to test the material under actual (or at least simulated) service conditions before specification and/or use.

**Rating Key:**

<b>R</b> = Recommended	<b>C</b> = Intermittent Contact; not continuous immersion	<b>NR</b> = Not Recommended
C Acetic Acid, 10%	R Ferrous Sulfate, 10%	R N-Butyl Alcohol
C Acetic Acid, 50%	R Fluoboric Acid, 10%	R NaphthaVM & P
NR Acetic Acid, Glacial	NR Formic Acid, 90%	R Naphthalene Oil
C Acetone	R Fuel Oil/Diesel Fuel	NR Nitric Acid, 10%
C Acrylonitrile	NR 2-Furaldehyde	NR Nitric Acid, 30%
R Aluminum Sulfate Solution, 50%	R Gasoline, Leaded	NR Nitric Acid, 60%
R Ammonium Chloride Solution, 50%	R Gasoline, Unleaded	R Oleic Acid
C Ammonium Hydroxide Solution, 28%	R Gasol	R Oxalic Acid, 20%
R Ammonium Perchlorate, 15%	NR Glycol Ether EM	R Paraffinic Oil
R Ammonium Perchlorate, 50%	R Heptane	Pesticides
R Ammonium Polysulfate	Herbicides	R —Arrosolo 3.3E
R Ammonium Sulfate Solution, 30%	R — Marksman	R — Eradicane 6.7E
R Amyl Alcohol	R — Banvel	R Phenolic Resins
NR Arcosolv PM Acetate	C — Dual 8E	R Phosphoric Acid, 50%
R ASTM Fuel A	C — Bicep 6L	C Phosphoric Acid, 60%
R ASTM Fuel B	R —Aatrex 4L	C Phosphoric Acid, 75%
R ASTM Fuel C	R — Prowl 3.3 EC	R Phthalic Andrydride, 38% slurry
R ASTM Fuel D	R —Tri-4	Pickling Solution
R Barium Hydroxide, 10%	R —Treflan	NR — 20% Nitric Acid, 4% HF
NR Benzene	R — Serve 24E	NR — 17% Nitric Acid, 4% HF
NR Benzoflex 9-88	R — Sonalan E.C.	R Potassium Carbonate
NR Benzoic Acid, 5%	R Hexane	R Potassium Hydroxide Solution, 25%
R Borax Solutions, 25%	R Hexane Glycol	R Potassium Hydroxide, 50%
R Boric Acid Solution, 20%	C Hydrochloric Acid, 20%	NR Potassium Permanganate, 6%
R Borohydride Solution	NR Hydrochloric Acid, 37%	R Propylene Glycol
R 1-4 Butanediol	R Hydrofluoric Acid, 5%	NR Propylene Oxide
NR Butyl Benzyl Phthalate	R Hydrofluoric Acid, 10%	R SAE 10 Oil
R Butyl Cellulosolve	R Hydrofluoric Acid, 23%	R Shell Tellus Oil 46
NR Butyl Cellulosolve Acetate	R Hydrogen Peroxide, 3%	R Skydrol 500B
R Butyl Dioxitol	R Hydrogen Peroxide, 20%	R Soap Solutions
R Butyl Oxitol	R Hydrogen Peroxide, 35%	R Sodium Bicarbonate Solution, 25%
R Calcium Chloride Solutions, 50%	R Isobutyl Alcohol	R Sodium Chloride Solution, 25%
R Calcium Hydroxide, 20%	R Isobutyl Isobutryate	C Sodium Cyanide, 5%
R Calcium Hypochlorite, 50%	NR Isophorone, 97%	R Sodium Hydroxide, 50%
NR Carbon Disulfide	C Isopropyl Alcohol	R Sodium Hydroxide, 50% @ 120°F
C Carbon Tetrachloride	C Isopropylamine	NR Sodium Hypochlorite, 5%
NR Carbitol Acetate	R Isotearic Acid	NR Sodium Hypochlorite, 8%
R Caustic Potash, 45%	R Jet Fuel (See ASTM Fuels)	R Sodium Sulfide, 25%
NR Cellosolve Acetate	R Kerosene	NR Solvent 150
R Chlorinated Water, 1ppm	R Lacquer Solvents	R Stearic Acid, 20%
R Chlorinated Water, 10ppm	R Linseed Oil	NR Styrene
R Chlorinated Water, 100ppm	R Lubricating Oils	R Sulfuric Acid, 20%
NR Chromic Acid, 15%	R Magnesium Chloride Solution, 20%	NR Sulfuric Acid, 50%
NR Chromic Acid, 35%	R Magnesium Hydroxide Solution, 30%	NR Sulfuric Acid, 66%
R Copper Sulfate Solution, 20%	NR Malathion 50	NR Sulfuric Acid, 8% @ 120°F
NR Creosote	R Maleic Anhydride, 25% Slurry	NR Tetrahydrofuran
NR Cumene Hydroperoxide	NR 2-Mercaptoethanol	NR Tetrahydrofurfuryl Alcohol
R Cyclohexane	R Methanol	R Texanol
R Dibutyl Carbotal	C Methyl Acrylate	NR Toulene
R Diethylene Glycol	C Methyl Carbitol	R Transmission Fluid
NR Dimethyl Formanide	NR Methyl Cellulosolve Acetate	C 1, 1, 1 Trichloroethane
NR Epichlorohydrin	C Methyl Ethyl Ketone	C Triton X100
C Ethyl Acetate	C Methyl Methacrylate	R Urea, 10%
C Ethyl Acrylate	C Methyl n-Amyl Ketone	R Urea Ammonium Nitrate, 32%
R Ethyl Alcohol	NR Methylene Chloride	C Vinylidene Chloride
R 2-Ethyl Hexyl Acrylate	R Methyl Tert-Butyl Ether, 98%	R Vinyl Acetate
NR Ethylene Dichloride	R Mineral Spirits	C Xylene
R Ethylene Glycol	R Motor Oil 10W/40	R Zinc Chloride, 10%
C Ferric Chloride, 50%	R N-Butyl Acrylate	R Zinc Nitrate, 17%

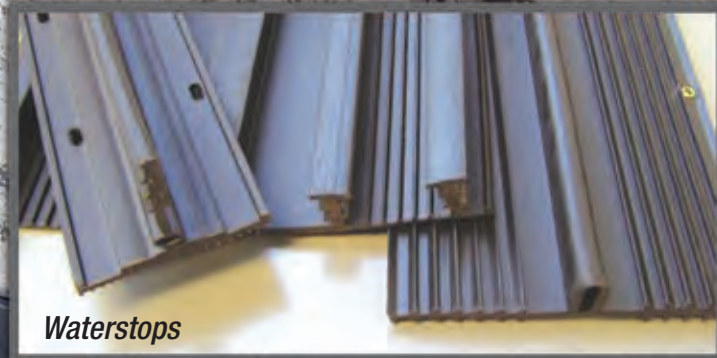


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[www.pecora.com](http://www.pecora.com)

**Enviro-Safe Resource Recovery**  
**Appendix U-04 - Waterstops and Stormceptor System Specifications**





Waterstops



The Original EB Cap  
Seal System for  
Concrete Joints  
Patent No. 5,375,386



# WESTEC®

## Barrier Technologies

### *Quality Products for Secondary Containment*

Industrial applications mean special requirements for containment structure design and construction. The standard flexible PVC waterstop material may not be suitable for the harsh chemical environments. Westec Barrier Technologies and Greenstreak Group Inc., specialize in waterstop applications for these unique industrial environments. In addition to the traditional waterstop profiles, Westec offers several profiles specifically designed for industrial applications, particularly retrofit profiles for expanding and updating existing facilities.

### *Application Areas:*

- Ethanol/Biodiesel
- Petrochemical Manufacturing
- Refineries
- Pulp and Paper Mills
- Land, Air and Seaports
- Fuel Storage / Tank Farm
- Pipeline
- Pharmaceutical Plants

### *Superior Service*

Greenstreak engineers are available for design review, chemical test data, material take-off and shop drawing assistance.

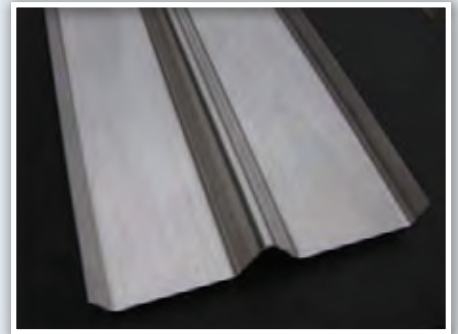
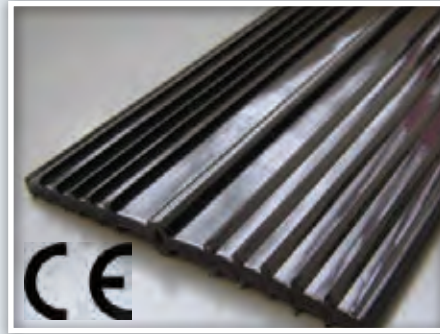
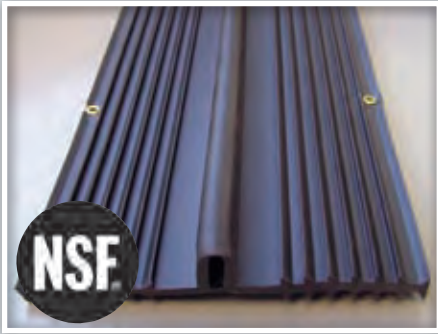


GREENSTREAK GROUP, INC.

Learn more at [Chemstop.com](http://Chemstop.com) • [GreenstreakGroup.com](http://GreenstreakGroup.com) • email: [info@chemstop.com](mailto:info@chemstop.com)  
Phone (800) 7-westec (793-7832) or (636) 225-9400



## Material Choices for Optimum Performance



### Envirostop® TPER

Thermoplastic Elastomeric Rubber is a fully vulcanized blend of EPDM and Polypropylene, also called a Thermo-plastic Vulcanizate or TPV. This gives the waterstop the flexibility and sealing properties of a rubber seal, but allows for heat welding and processing like a plastic. In addition to the favorable physical properties, TPER also has excellent chemical resistance to a wide range of chemicals. ASTM tests (D-471) show good resistance to oils, fuels, acids, bases and numerous solvents.



### Envirostop® TPER

Westec Envirostop® TPER waterstop is certified to NSF/ANSI Standard 61 for drinking water applications. The standard establishes minimum health effects requirements for the chemical contaminants and impurities that may be indirectly imparted to drinking water. Although more commonly known for its use in chemical containment applications, TPER waterstop is now widely used for ozone contact structures in the water treatment industry. Envirostop® TPER waterstop can be specified for any drinking water containment structure where this certification is required for joint sealing materials.

### PE Polyethylene

Polyethylene (VLDPE) is more plastic-like, having increased elastic modulus and hardness than TPER. PE also has greater resistance in some applications, and is particularly effective for hydrocarbons such as Benzene, Toluene and Xylene. After exposure (1-4 weeks) to such and subsequent drying, PE waterstop was found to return nearly to its original physical properties.



Westec PE 050 and 631 waterstop profiles are the first to receive the European Technical Approval for watersealing bands and have been approved for CE marking in the European Union, ETA-04/0044.



### Grommets

TPER and PE, 6" and 9" waterstops are pre-punched in the outermost rib with brass grommets providing convenient points on 12" centers to wire the water stop to reinforcement. Properly securing the waterstop is critical to ensure good consolidation around the ribs and a liquid tight seal.

### SS Stainless Steel

Stainless Steel is for high temperature environments that exceed 250°F or the most severe chemical applications. Westec offers 316 Low Carbon Stainless Steel waterstops. However many applications that have traditionally used SS waterstop can be served with TPER, including ozone contact structures.



### Splicing and Fabrications

Greenstreak PVC welding equipment and techniques can be used for Westec TPER and PE waterstops, requiring only a higher temperature set at 410°F. Westec recommends factory-fabricated joints at all intersections and direction changes.

Factory fabrications offer a quick and economical alternative to cutting and splicing these critical junctions in the field. Contact a Greenstreak engineer to arrange for a material take-off and custom shop drawings. Fabrications are available for TPER, PE and Stainless Steel.

## Physical Properties of Finished Waterstop

Property	Test Method	TPE-R	PE	*Stainless Steel
Tensile Strength	ASTM D 638	2000psi	2000psi	75000psi
Elongation	ASTM D 638	450%	800%	40%
100% Modulus	ASTM D 638	1000psi	4200psi	
Brittle Temperature	ASTM D 746	-70F		
Hardness	ASTM D 2240	85 Shore A	40 Shore D	95 max Rockwell B
Yield Strength				25000psi

\*SS Properties taken from ASTM A240, Table 2

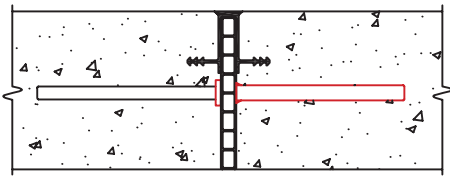
### Chemical Resistance General Guidelines

Chemical Resistance recommendations are based on short term, secondary containment applications. Typical testing is performed according to ASTM D-471 "Standard Test Method for Rubber Property-Effect of Liquids" with 166 hour (7day) immersion. Performance data has been collected from a variety of sources including industry reference data, 3rd party and in house testing. Consult a Greenstreak Engineer for application specific chemical data or further testing.

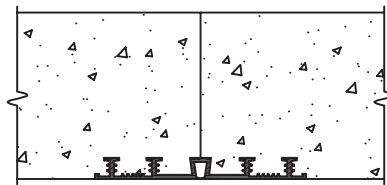
Chemical Exposure	Temp. (C/F)	TPER	PE	Stainless Steel 316	PVC
<b>Rating Key: A = Excellent B = Good C = Conditional X = Do not use</b>					
Ammonia, Anhydrous	23 C/73.4 F	A	B	A	A
Antifreeze	100 C/212 F	A	B	A	A
(50% Ethylene Glycol/50% Water)	125 C/257 F	B		A	
ASTM Oil #2	100 C/212 F	B		A	X
Benzene	23 C/73.4 F	B	B	A	X
Carbontetrachloride	23 C/73.4 F	X	X	B	X
Chlorine (Wet/Dry)	23 C/73.4 F	A/A	C/C	A/X	X/X
Creosote	23 C/73.4 F	A		A	X
Cyclohexane	23 C/73.4 F	X	X	A	X
Diesel Fuel	23 C/73.4 F	B	B	A	X
Ethanol	23 C/73.4 F	A	A	A	C
Hydraulic Fluid	23 C/73.4 F	A	B	A	X
Hydrogen Peroxide	23 C/73.4 F	A	B	B	A
Isopropyl Alcohols	23 C/73.4 F	A	A	A	A
Jet Fuel - JP8	23 C/73.4 F	B	B	A	C
Kerosene	23 C/73.4 F	B	C	A	C
Methyl Ethyl Ketone	23 C/73.4 F	B	B	A	X
Nitric Acid- 70%	23 C/73.4 F	B	X	A	X
Oil, Mineral	23 C/73.4 F	A	B	A	B/C
Sodium Hydroxide 80% Solution	23 C/73.4 F	A	C	X	A
Sodium Hypochlorite	23 C/73.4 F	A	B	A	A
Styrene	23 C/73.4 F	B	B	A	X
Sulfuric Acid 98%	23 C/73.4 F	B	C	X	X
Tetrahydrofuran	23 C/73.4 F	B	X	A	X
Toluene	23 C/73.4 F	B	B	A	X
Trichloroethylene	23 C/73.4 F	X	X	A	X
DI Water pH 11	23 C/73.4 F	A	B	A	A
Xylene	23 C/73.4 F	B	B	A	X

## Selecting The Right Profile

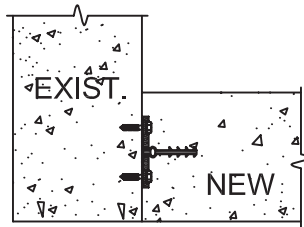
Envirostop® TPER and PE waterstops are available in a variety of sizes and profiles to meet the needs of various structures and applications.



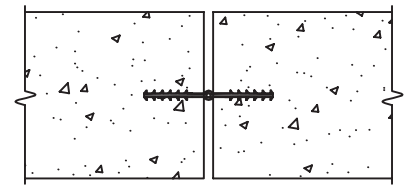
**EB Cap** - The patented Expansion Board Cap Seal system was design to serve as both a waterstop and joint sealant. This unique design allows for one step placement of your joint sealant and waterstop. No stripping, sawcutting or sealing is required. The result is an easy to install, maintenance free joint. TPER and PE profiles are available.



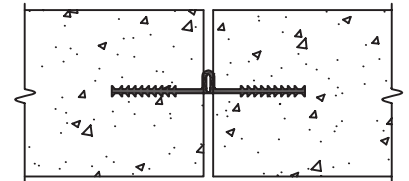
**Base Seal** is designed for slab on grade joints or backfilled walls and eliminates difficult split forming details. This profile is difficult to join to other waterstops so may not be suitable for containment areas with standard waterstop in other joints. This profile is available only as TPER.



**Retrofit** - Modern chemical plants and manufacturing facilities are constantly expanding, modifying existing areas for new technologies and products. Structural changes to the concrete areas create the potential for leaks between the new and existing concrete. Westec offers multiple profiles for a variety of situations and applications. TPER, PE and Stainless Steel retrofit profiles are available.



**Ribbed with Centerbulb** is a very versatile waterstop and a standard for the concrete industry. The centerbulb of the waterstop accommodates vertical and horizontal movement equal to the inside diameter of the centerbulb. This waterstop can be used in control joints and expansion joints, vertical and horizontal applications. TPER and PE profiles are available.



**Ribbed with Tear Web** is designed for larger joint movements. The thin web in the U shaped centerbulb will tear during joint movement and allow for additional expansion or differential settlement. Some fabrication types are limited. TPER and PE profiles are available.

### What about Split Waterstops?

Split waterstops have a split flange that opens and is attached to one side of the bulkhead. Following the first pour, the bulkhead is removed and the flange is closed and secured to adjacent reinforcing steel prior to the succeeding pour. These waterstops typically cannot be joined to other waterstops and cannot accommodate directional changes or intersections. The applications for split waterstops are limited and not suitable for chemical containment. Westec Retrofit and EB Cap systems address many of the forming issues served by split waterstop.

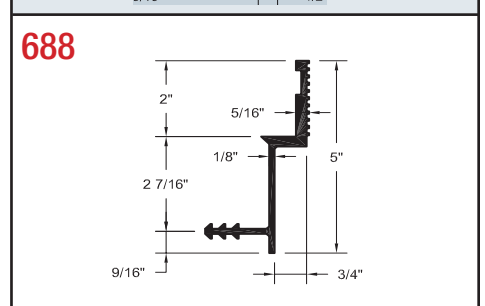
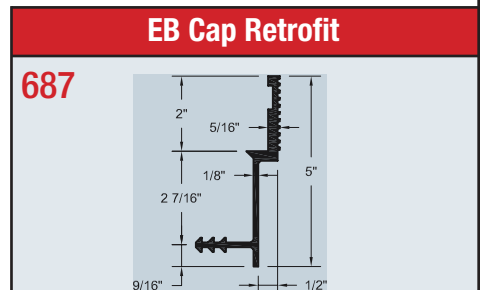
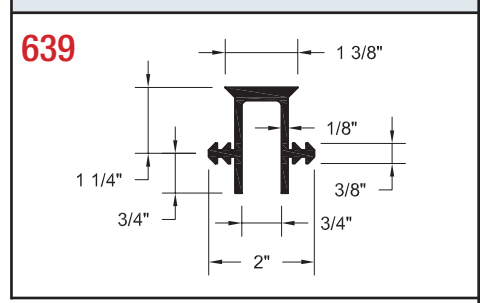
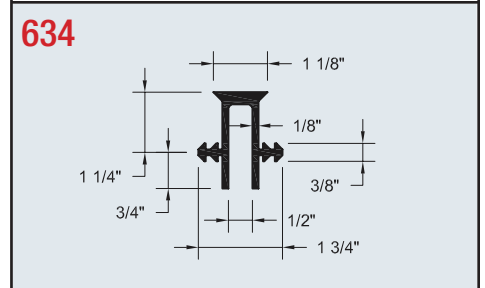
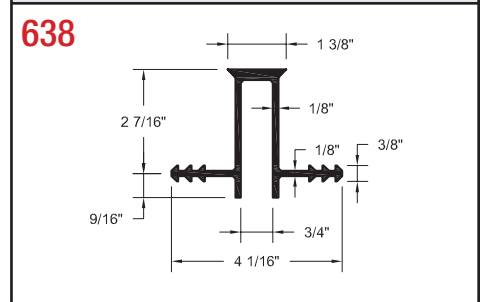
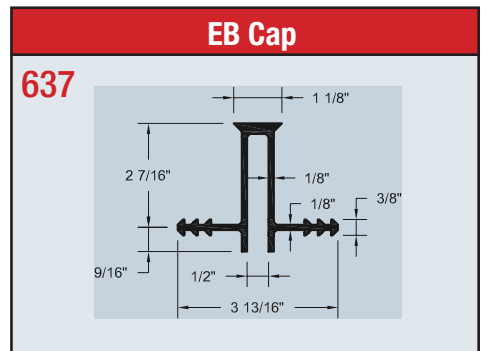
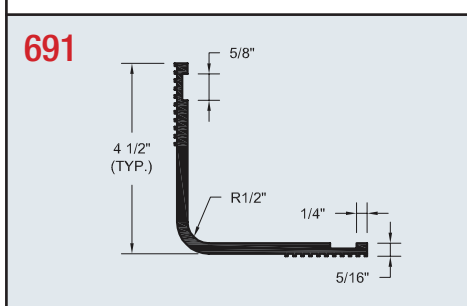
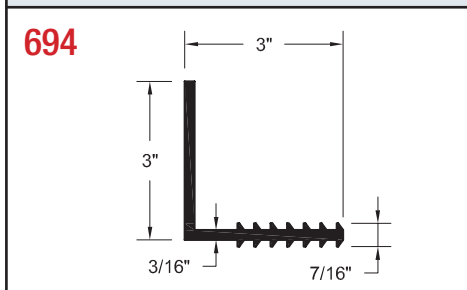
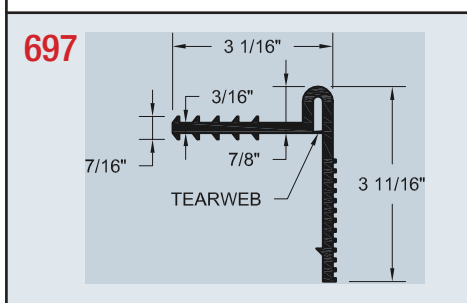
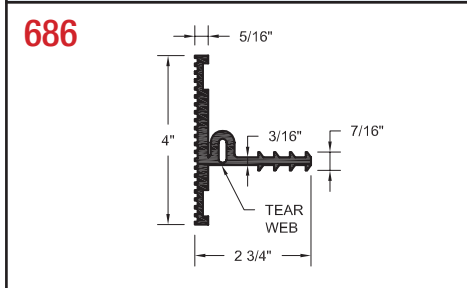
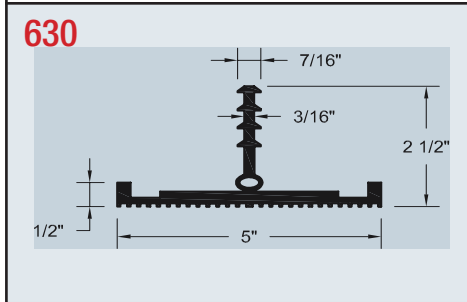
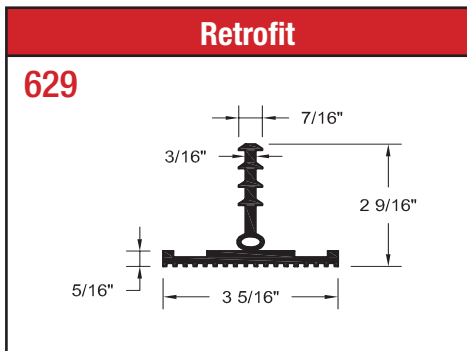
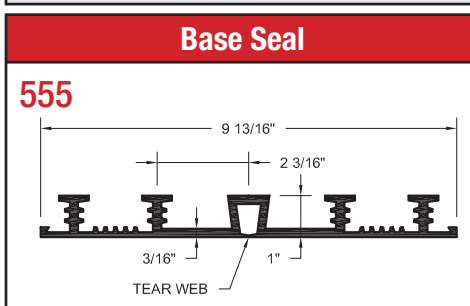
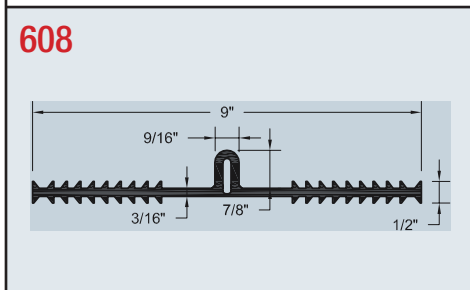
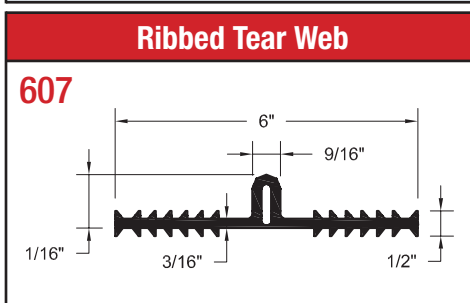
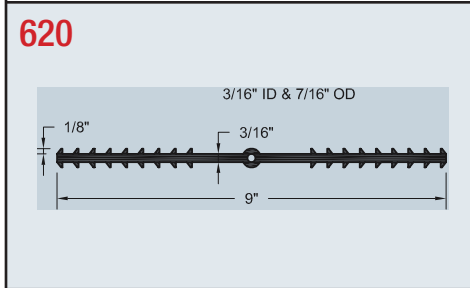
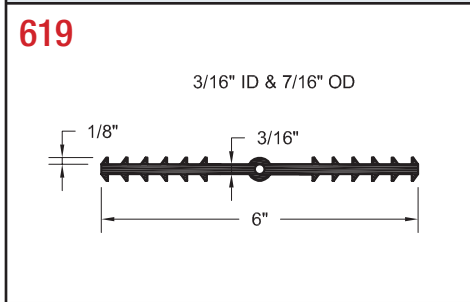
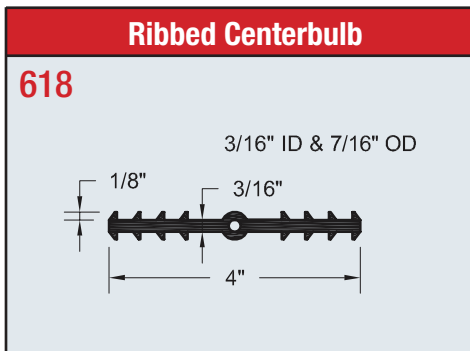
### What about Dumbbell Waterstops?

Generally any situation suited for dumbbell waterstops can be better served with a ribbed profile. The multi-rib configuration disperses stress to the waterstop more effectively than a single dumbbell and creates a more circuitous path for liquid migration.

### What about Hydrophilic (swelling) Waterstops?

Hydrophilic strip applied waterstops are easy to install and effective in a variety of applications. However they have some limitations and should be used with caution in secondary chemical containment installations. Designers should consider not only the chemical resistance of hydrophilic materials, but the degree and rate of swell of the waterstops during exposure to a media other than water. Embedded waterstops generally provide a more reliable seal against infrequent but sudden exposure to aggressive liquids.

# Envirostop® TPER Profiles: Standard, Retrofit and EB Cap



Envirostop® TPER Products are certified by NSF to NSF/ANSI Standard 61

## PE Profiles: Standard, Retrofit and EB Cap

<p><b>039</b></p> <p>3/16" ID &amp; 7/16" OD</p> <p>1/8" 3/16" 4"</p>	<p><b>031</b></p> <p>7/16" 3/16" 2 9/16" 5/16" 3 5/16"</p>	<p><b>EB Cap Retrofit</b></p> <p><b>087</b></p> <p>2" 5/16" 1/8" 2 7/16" 9/16" 1/2" 5"</p>
<p><b>050</b></p> <p>3/16" ID &amp; 7/16" OD</p> <p>1/8" 3/16" 6"</p>	<p><b>041</b></p> <p>7/16" 3/16" 2 1/2" 1/2" 5"</p>	<p><b>088</b></p> <p>2" 5/16" 1/8" 2 7/16" 9/16" 3/4" 5"</p>
<p><b>040</b></p> <p>1 1/16" 6" 9/16" 3/16" 1/2"</p>	<p><b>EB Cap</b></p>	
	<p><b>625</b></p> <p>1 1/8" 2 7/16" 1/8" 3/8" 9/16" 1/2" 3 13/16"</p>	<p><b>631</b></p> <p>1 3/8" 2 7/16" 1/8" 3/8" 9/16" 1/2" 4 1/16"</p>

## Stainless Steel Profiles: Standard and Retrofit

<p><b>498</b></p> <p>1/2" 1" 3/4" 1 1/4" 4 1/8" 120°</p>	<p><b>499</b></p> <p>1/2" 1" 3/4" 2" 5 5/8" 120°</p>	<p><b>496</b></p> <p>1/2" 1" 3/4" 3 1/2" 8 5/8" 120°</p>
<p><b>493</b></p> <p>1/2" 1" 3/4" 2 9/16"</p>	<p><b>494</b></p> <p>1/2" 1" 3/4" 3 5/16"</p>	<p><b>495</b></p> <p>1/2" 1" 1 1/2" 1"</p>





**Retrofit Waterstop**

## Installing Retrofit

Westec has a variety of retrofit profiles for varying applications. The general principle is to secure a waterstop profile to existing concrete by mechanically fastening a profile into a bed of epoxy. This eliminates any requirement for saw cutting into the existing concrete. Stainless Steel batten bars, concrete fasteners and Novolac Gel Epoxy are supplied with each profile.

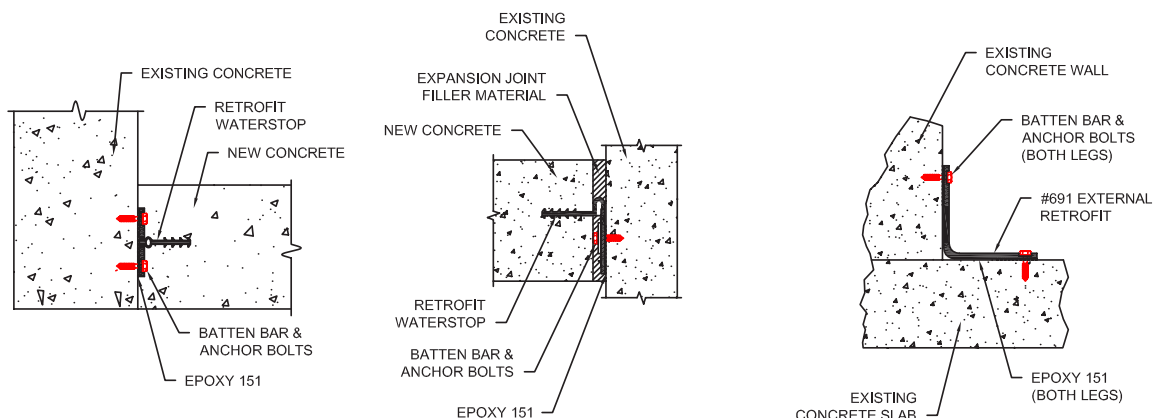
This 4-part system eliminates the saw cut requirement and creates a fluid-tight joint at the new to existing concrete junction.



**Novolac Gel Epoxy**

- 1. Epoxy Bed:** A bed of epoxy (about 1/8") is applied to the existing concrete. The gel epoxy serves as a gasket, ensuring a liquid tight seal between the profile and existing concrete. Concrete should be clean, dry and free of loose material.
- 2. Waterstop Profile:** Next the waterstop profile is pressed into the uncured bed of epoxy. Westec has numerous configurations of waterstop for a variety of applications (large movements, expansion joints, external joints, etc.) but all have the same basic components; waterstop profile, batten bars, anchor bolts and epoxy. TPER and PE profiles feature a series of small ridges for the epoxy bed and a larger web for embedment into the new concrete, similar to a standard ribbed waterstop.
- 3. Batten Bar:** A stainless steel batten bar (sometimes two) runs the length of the waterstop to maintain even pressure on the waterstop and distribute shear forces due to differential slab settlements. Batten Bars come in multiple sizes, depending on the profile, but all are predrilled for concrete fasteners every 6".
- 4. Concrete Fasteners:** Retrofit systems are supplied with stainless steel concrete anchors/screws. These bolt through the batten bar, profile and epoxy and secure everything to the existing concrete. While the epoxy does have some adhesive properties, batten bars and fasteners are required to maintain a fluid tight seal and support any concrete movement. Using the batten bar as a guide, drill anchor bolt holes through the concrete and waterstop in one pass before the epoxy cures.

## Construction Details for Special Retrofit Designs







# WESTEC®

Barrier Technologies

## Patented Expansion Board Cap Seal System

The Patented Expansion Board Cap Seal System, designed by Westec is a complete concrete joint system with a simple installation. The EB Cap integrates the waterstop, forming system, expansion board, joint seal and load transfer units into a single structure. Just stake down the board, set your screed elevation and that's it. No stripping forms, no messy sealants, no problems.



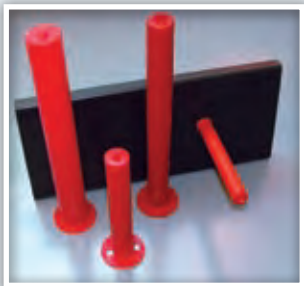
EB Cap US Patent no. 5,375,386

### Installation Benefits:

- No split formwork
- No poured-in-place sealant required
- No remobilization for saw cutting or sealant
- "Checkerboard" concrete placement potentially avoided
- Convenient strip pouring possible with Speed Loads
- Lower labor and installation costs
- No joint finishing required

### Polyboard

Westec HDPE Polyboard is designed to work with the EB Cap Seal and EB Cap Retrofit profiles and serves as both expansion material and a stay-in-place forming system. Polyboard is available in 3/4" widths for 6" and 8" paving applications or 4' x 8' sheets for thicker slabs. A 1/2" width Polyboard is available in 4' x 8' sheets.

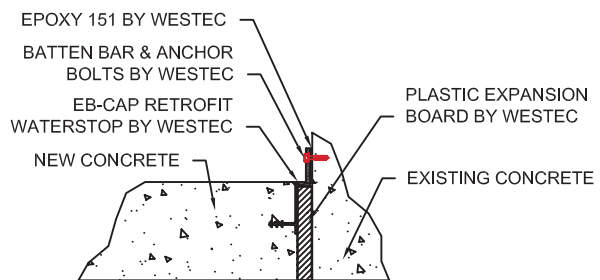
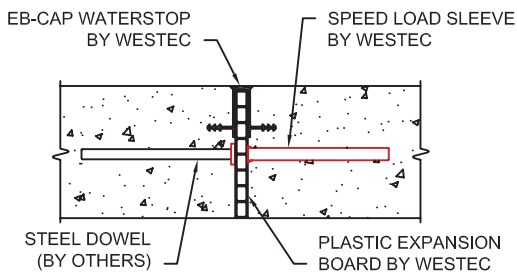


Speed Load US Patent no. D419,700

### Speed Load

Speed Loads are an excellent addition to the EB Cap Seal and Polyboard. The Speed Loads align the steel load transfer dowels and are designed specifically for stay-in-place forming systems like the EB Cap System.

## Construction Details for Special EB Cap Designs



**Call a Greenstreak Group Engineering representative today to discuss your application.**

## WESTEC Barrier Technologies

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**THE STORMCEPTOR® SYSTEM**  
**Owner's Manual**

**Stormceptor® Owner's Manual Contents**

- 1. Stormceptor Overview
- 2. Stormceptor System Operation
- 3. Identification of Stormceptor
- 4. Stormceptor Maintenance Guidelines
  - 4.1 Recommended Maintenance Procedure
  - 4.2 Disposal of Trapped Material from Stormceptor
- 5. Recommended Safety Procedures
- 6. Stormceptor Monitoring Protocol
  - 6.1 Pollutants to be Monitored
  - 6.2 Monitoring Methodology

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Rev. 3/2006

## Thank You!

We want to thank you for selecting the Stormceptor System to use in your efforts in protecting the environment. Stormceptor is one of the most effective and maintenance friendly storm water quality treatment devices available. If you have any questions regarding the operation and maintenance of the Stormceptor System, please call your local Rinker Materials representative, or the Stormceptor Information Line at (800) 909-7763.

### 1. Stormceptor Overview

The Stormceptor System is a water quality device used to remove total suspended solids (TSS) and free oil (TPH) from storm water run-off. Stormceptor takes the place of a conventional manhole or inlet structure within a storm drain system. Rinker Materials manufactures the Stormceptor System with precast concrete components and a fiberglass disc insert. A fiberglass Stormceptor can also be provided for special applications.

The Stormceptor System product line consists of four patented designs:

- The In-Line (Conventional) Stormceptor, available in eight model sizes ranging from 900 to 7200 gallon storage capacity.
- An In-Line (Series) Stormceptor is available in three model sizes ranging from 11,000 to 16,000 gallon storage capacity.
- The Submerged Stormceptor, an in-line system designed for oil and sediment removal in partially submerged pipes, available in all models sizes ranging from 450i to 16,000 gallon storage capacity.
- The Inlet Stormceptor is a 450 gallon unit designed for small drainage areas.

Stormceptor removes free oil and suspended solids from storm water preventing hazardous spills and non-point source pollution from entering downstream lakes and rivers. Rinker Materials and its affiliates market and manufacture the Stormceptor System in the United States and Australia. Several thousand Stormceptor Systems have been installed in various locations throughout North America, Australia and the Caribbean since 1990.

In the Stormceptor, a fiberglass insert separates the treatment chamber from the by-pass chamber. The different insert designs are illustrated in Figures 1 and 2. These designs are easily distinguishable from the surface once the cover has been removed.

There are four versions of the in-line disc insert: single inlet/outlet, multiple inlet, in-line series insert and submerged designs. In the non-submerged "disc" design you will be able to see the inlet pipe, the drop pipe opening to the lower chamber, the weir, a 6" oil inspection/cleanout pipe, a large 24" riser pipe opening offset on the outlet side of the structure, and the outlet pipe from the unit. The weir will be around the 24" outlet pipe on the multiple inlet disc insert and on large diameter pipe applications.

The STC (series) Stormceptors consist of two chambers comprised of similar fiberglass inserts. These units also contain a 6" oil/inspection cleanout pipe and 24" outlet riser pipes.

The submerged disc insert has a higher weir and a second inlet drop pipe. In the inlet design you will be able to see an inlet drop pipe and an outlet riser pipe as well as a central oil inspection/cleanout port.

## 2. Stormceptor System Operation

The Stormceptor consists of a lower treatment chamber, which is always full of water, and a by-pass chamber. Storm water flows into the by-pass chamber via the storm sewer pipe or grated inlet (Inlet Stormceptor). Normal flows are diverted by a weir and drop pipe arrangement into a treatment chamber. Water flows up through the submerged outlet pipe based on the head at the inlet weir and is discharged back into the by-pass chamber downstream of the weir. The treated storm water continues down stream via the storm sewer system.

Oil and other liquids with a specific gravity less than water rise in the treatment chamber and become trapped under the fiberglass insert. Sediment will settle to the bottom of the chamber by gravity. The circular design of the treatment chamber is critical to prevent turbulent eddy currents and to promote settling.

During infrequent high flow conditions, storm water will by-pass the weir and be conveyed to the outlet sewer directly. The by-pass is an integral part of the Stormceptor since other oil/grit separators have been noted to scour during high flow conditions (Schueler and Shepp, 1993).

For further details please refer to *The Stormceptor System Technical Manual*.

The key benefits of Stormceptor include:

- Capable of removing more than 80% of the total sediment load when properly applied as a source control for small drainage areas
- Removes free oil from storm water during normal flow conditions
- Will not scour or resuspend trapped pollutants
- Ideal spill control device for commercial and industrial developments
- Vertical orientation facilitates maintenance and inspections
- Small foot print

## 3. Identification of Stormceptor

All In-Line (including Submerged) Stormceptors are provided with their own frame and cover. The cover has the name STORMCEPTOR clearly embossed on it to allow easy identification of the unit. The name Stormceptor is not embossed on the inlet models due to the variability of inlet grates used/approved across North America. You will be able to identify the Inlet Stormceptor by looking into the grate since the insert will be visible.

Once you have located a unit, there still may be a question as to the size of the unit. Comparing the measured depth from the water level (bottom of insert) to the bottom of the tank with Table 1 should help determine the size of the unit.

<b>Model</b>	<b>Pipe Invert to Top of Base Slab</b>
450i	60"
900	55"
1200	71"
1800	105"
2400	94"
3600	134"
4800	128"
6000	150"
7200	134"
11000s	128"***
13000s	150"***
16000s	134"***

\* *Depths are approximate*

\*\* *Depths per structure*

Starting in 1996, a metal serial number tag has been affixed to the fiberglass insert. If the unit does not have a serial number, or if there is any uncertainty regarding the size of the Stormceptor using depth measurements, please contact the Rinker Materials Stormceptor information line at (800) 909-7763 for assistance.

#### **4. Stormceptor Maintenance Guidelines**

The performance of all storm water quality measures that rely on sedimentation decreases as they fill with sediment (See Table 2 for Stormceptor capacities). An estimate of performance loss can be made from the relationship between performance and storage volume. Rinker Materials recommends maintenance be performed when the sediment volume in the unit reaches 15% of the total storage. This recommendation is based on several factors:

- Sediment removal is easier when removed on a regular basis (as sediment builds up it compacts and solidifies making maintenance more difficult).
- Development of a routine maintenance interval helps ensure a regular maintenance schedule is followed. Although the frequency of maintenance will depend on site conditions, it is estimated that annual maintenance will be required for most applications; annual maintenance is a routine occurrence which is easy to plan for and remember.
- A minimal performance degradation due to sediment build-up can occur.

In the event of any hazardous material spill, Rinker Materials recommends maintenance be performed immediately. Maintenance should be performed by a licensed liquid waste hauler. You should also notify the appropriate regulatory agencies as required.



<b>Model</b>	<b>Sediment Capacity ft<sup>3</sup> (L)</b>	<b>Oil Capacity US gal (L)</b>	<b>Total Holding Capacity US gal (L)</b>
450i	45 (1276)	86 (326)	470 (1779)
900	75 (2135)	251 (950)	952 (3604)
1200	113 (3202)	251 (950)	1234 (4671)
1800	193 (5470)	251 (950)	1833 (6939)
2400	155 (4387)	840 (3180)	2462 (9320)
3600	323 (9134)	840 (3180)	3715 (14063)
4800	465 (13158)	909 (3441)	5059 (19150)
6000	609 (17235)	909 (3441)	6136 (23227)
7200	726 (20551)	1059 (4009)	7420 (28088)
11000s	942 (26687)	2797 (10588)*	11194 (42374)
13000s	1230 (34841)	2797 (10588)*	13348 (50528)
16000s	1470 (41632)	3055 (11564)*	15918 (60256)

\* Total both structures combined

#### 4.1 **Recommended Maintenance Procedure**

For the “disc” design, oil is removed through the 6" inspection/cleanout pipe and sediment is removed through the 24" diameter outlet riser pipe. Alternatively, oil could be removed from the 24" opening if water is removed from the treatment chamber, lowering the oil level below the drop pipes.

The depth of sediment can be measured from the surface of the Stormceptor with a dipstick tube equipped with a ball valve (Sludge Judge®). It is recommended that maintenance be performed once the sediment depth exceeds the guideline values provided in Table 3 for the reasons noted in Section 4.0 Stormceptor Maintenance Guidelines.

<b>Model</b>	<b>Sediment Depth*</b>
450i	8" (200 mm)
900	8" (200 mm)
1200	10" (250 mm)
1800	15" (375 mm)
2400	12" (300 mm)
3600	17" (425 mm)
4800	15" (375 mm)
6000	18" (450 mm)
7200	15" (375 mm)
11000s	17" (425 mm)**
13000s	20" (500 mm)**
16000s	17" (425 mm)**

\* Depths are approximate

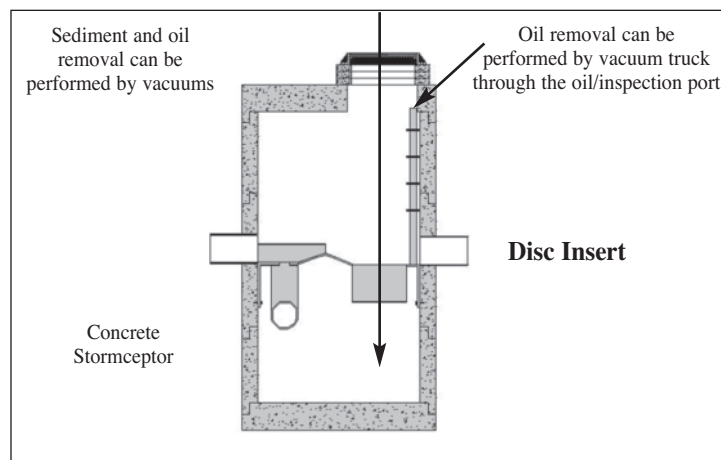
\*\* In each structure



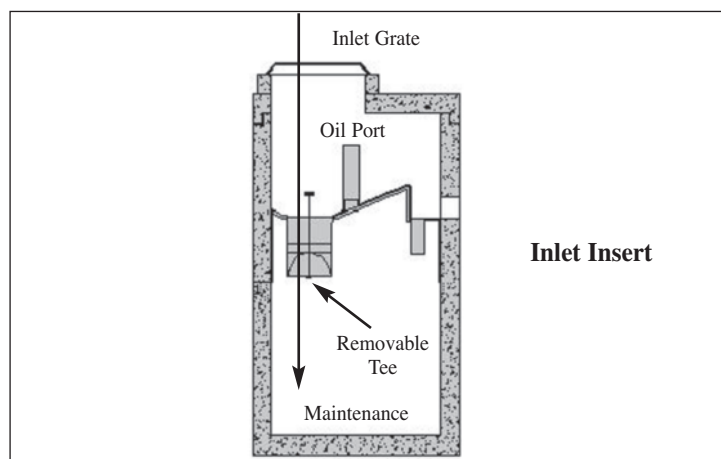
No entry into the unit is required for routine maintenance of the Inlet Stormceptor or the smaller disc insert models of the In-Line Stormceptor. Entry to the level of the disc insert may be required for servicing the larger disc insert models. Any potential obstructions at the inlet can be observed from the surface. The fiberglass insert has been designed as a platform for authorized maintenance personnel in the event that an obstruction needs to be removed.

Typically, maintenance is performed by the Vacuum Service Industry, a well established sector of the service industry that cleans underground tanks, sewers, and catch-basins. Costs to clean a Stormceptor will vary based on the size of the unit and transportation distances. If you need assistance for cleaning a Stormceptor unit, contact your local Rinker Materials representative, or the Stormceptor Information Line at (800) 909-7763.

Figures 1 and 2 will help illustrate the access point for routine maintenance of Stormceptor.



**Figure 1** Single Inlet/Outlet “Disc” Insert In-Line Stormceptor



**Figure 2** STC 450*i* Inlet Stormceptor

#### 4.2 Disposal of Trapped Material from Stormceptor

The requirements for the disposal of material from Stormceptor are similar to that of any other Best Management Practices (BMP). Local guidelines should be consulted prior to disposal of the separator contents.

In most areas the sediment, once dewatered, can be disposed of in a sanitary landfill. It is not anticipated that the sediment would be classified as hazardous waste. In some areas, mixing the water with the sediment will create a slurry that can be discharged into a trunk sanitary sewer. In all disposal options, approval from the disposal facility operator/agency is required. Petroleum waste products collected in Stormceptor (oil/chemical/fuel spills) should be removed by a licensed waste management company.

#### **What if I see an oil rainbow or sheen at the Stormceptor outlet?**

With a steady influx of water with high concentrations of oil, a sheen may be noticeable at the Stormceptor outlet. This may occur because a rainbow or sheen can be seen at very small oil concentrations (< 10 ppm). Stormceptor will remove over 95% of all free oil and the appearance of a sheen at the outlet with high influent oil concentrations does not mean that the unit is not working to this level of removal. In addition, if the influent oil is emulsified, the Stormceptor will not be able to remove it. The Stormceptor is designed for free oil removal and not emulsified or dissolved oil conditions.

#### 5.0 Recommended Safety Procedures

Rinker Materials strongly recommends that any person who enters a Stormceptor System follow all applicable OSHA regulations for entry in permit required confined spaces, as outlined in 29 CFR 1910.146. A permit required confined space consists of a space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work.
- Has limited or restricted means for entry and exit.
- Is not designed for continuous employee occupancy.
- Contains or has one of the following:
  - a potential to contain a hazardous atmosphere.
  - a material that has the potential for engulfing an entrant.
  - any other recognized serious safety hazard.

Storm water and wastewater systems fall under OSHA guidelines for a permit required confined space. Failure to follow OSHA guidelines for entry and work in a permit required confined space can result in serious injury or death. Please exercise extreme caution and follow appropriate safety procedures when entering any confined space.

Two square pick holes in the cover vent the Stormceptor, allow for removal of the cover, and provide sampling ports for air quality monitoring before the cover is removed. If you must enter the Stormceptor, please note that if the disc insert inside is wet, it can be slippery.

Recognizing that every work site is different, the responsibility for safety falls on the contractor. The contractor must ensure that all employees and subcontractors follow established safety procedures and OSHA regulations for working in and around permit required confined spaces as well as for any other safety hazard that may be present on that particular site.

## **6.0 Stormceptor Monitoring Protocol**

If monitoring of your Stormceptor System is required, we recommend you follow the procedures outlined below by the Rinker Materials Stormceptor office. If you have any questions regarding monitoring please contact the Rinker Materials Stormceptor Product Manager at (800) 909-7763.

### **6.1 Pollutants to be Monitored**

Table 4 indicates the pollutants to be monitored during the storm events and the minimum acceptable detection limit for each pollutant to be analyzed. Approved federal or state laboratory analysis methodologies are to be used for the analysis.

The optional metals indicated in Table 4 refer to the Resource Conservation Recovery Act and may be covered by a generic metals scan. Bacteria monitoring will not be required unless explicitly requested elsewhere.

Two sediment samples are to be extracted from the monitored Stormceptor at the end of the study and analyzed for the particle size distribution and water content. A minimum of 8 U.S. sieve sizes should be used to determine the particle size distribution. Sieves that are used must include, but are not limited to 35, 60, 100, 140, 200, 270 and 400. Three clay particle sizes must be analyzed to denote particle sizes between 5 and 25  $\mu\text{m}$ . The particle size distributions should be plotted on a standard grain size distribution graph.

<b>Pollutant</b>	<b>Minimum Detection Limit (MDL)</b>
Total Suspended Solids (TSS)	5 mg/l
Total Phosphorus (P)	0.02 mg/l
Total Kjeldahl Nitrogen (TKN)	0.1 mg/l
Copper (Cu)	0.001 mg/l
Cadmium (Cd)	0.005 mg/l
Lead (Pb)	0.05 mg/l
Zinc (Zn)	0.01 mg/l
Chromium (Cr)	0.01 mg/l
Total Petroleum Hydrocarbons (TPH)	1 mg/l
Conductivity	0.1 $\mu$ mho/cm
Fecal Coliform*	1/100 ml
Additional Metals (optional)	
Arsenic (As)	0.005 mg/l
Barium (Ba)	0.01 mg/l
Mercury (Hg)	0.0005 mg/l
Selenium (Se)	0.005 mg/l
Silver (Ag)	0.01 mg/l

\* Only if explicitly requested in Terms of Reference

## 6.2 Monitoring Methodology

The following monitoring protocol should be followed to ensure reasonable monitoring results and interpretation:

- Monitoring protocols should conform to **EPA 40 CFR Part 136**.
- The **EPA guideline of 72 hours dry period** prior to a monitoring event should be used. This will ensure that there is sufficient pollutant build-up available for wash-off during the monitored event.
- Flow proportional monitoring must be conducted for the parameters indicated in Table 1. Samples should be analyzed separately for the first flush versus the remainder of the storm event. Monitoring need not extend longer than an 8-hour period after the start of the storm event (composite).
- **Sediment sampling** (measuring the sediment depth in the unit at the beginning and end of the monitoring period) must be conducted. The water content of the sediment layer must be analyzed to determine the dry volume of suspended solids. Sediment depth sampling will indicate the rate of pollution accumulation in the unit, provide confirmation that the unit is not scouring and confirm the flow proportional monitoring results. A mass balance using the sediment sampling should be calculated to validate the flow proportional sampling.

- **Grab sampling** (just taking samples at the inlet and outlet) is an unacceptable methodology for testing the performance of the Stormceptor during wet weather conditions unless it is flow weighted (flow weighted composite sample from numerous grab samples) over the entire storm.
- The oil containment area underneath the insert should be inspected via the vent pipe for dry weather spills capture once a month during the monitoring period since the flow rate of a dry weather spill may not trigger the automated samplers.
- A tipping bucket rain gauge should be installed on-site to record the distribution of storm intensities and rainfall volume during the monitored events.
- Results that are within the laboratory error (both inlet and outlet) or are representative of relatively clean water should be discarded. Typical concentrations of pollutants in storm water are:

TSS	100 mg/L
Total P	0.33 mg/L
TKN	1.50 mg/L
Total Cu	34 $\mu$ g/L
Total Pb	144 $\mu$ g/L
Total Zn	160 $\mu$ g/L

A threshold first flush/composite TSS value of 50 mg/L at the inlet to the Stormceptor should be used as the lower limit of an acceptable storm for reporting event efficiency. Monitoring results where the influent TSS concentration is less than 50 mg/L should only be used in mass load removal calculations over the entire monitoring period with other storms where the influent concentration is greater than 50 mg/L. The results should not be analyzed if the influent TSS concentrations during all monitored storms are less than 50 mg/L. Storms where the influent TSS concentration is less than 10 mg/L should be discarded from all analyses.

- A threshold storm event volume equal to 1.5 times the storage volume of the Stormceptor being monitored should be used as the lower limit of an acceptable storm for monitoring.
- Sampling at the outlet of the Stormceptor should be conducted within the 24" outlet riser pipe to accurately define event performance.
- The personnel monitoring the Stormceptor should record incidental information in a log file. Information such as weather, site conditions, inspection and maintenance information, monitoring equipment failure, etc. provide valuable information that can explain anomalous results.
- Laboratory results of monitored samples should be analyzed within 10 days of being submitted to the lab.
- Weekly inspections of the sampling tubes, flow meter, rain gauge, and quality samplers should be conducted to ensure proper operation of the monitoring equipment. Debris and sediment that collects around the sampling intakes should be cleaned after each event.
- During the installation of automated quality samplers, care should be exercised to ensure that representative samples will be extracted (placement of intakes, ensuring that tubing is not constricted or crimped).
- Sampling should be conducted for a minimum of 6 storms. Ideally 15 storms should be sampled if the budget allows.

Call the Stormceptor Information Line  
(800-909-7763) for more detailed information and test results.

**TECHNICAL INFORMATION:**

- Stormceptor CD ROM
- Stormceptor Technical Manual
- Stormceptor Installation Guide
- Stormceptor Brochure

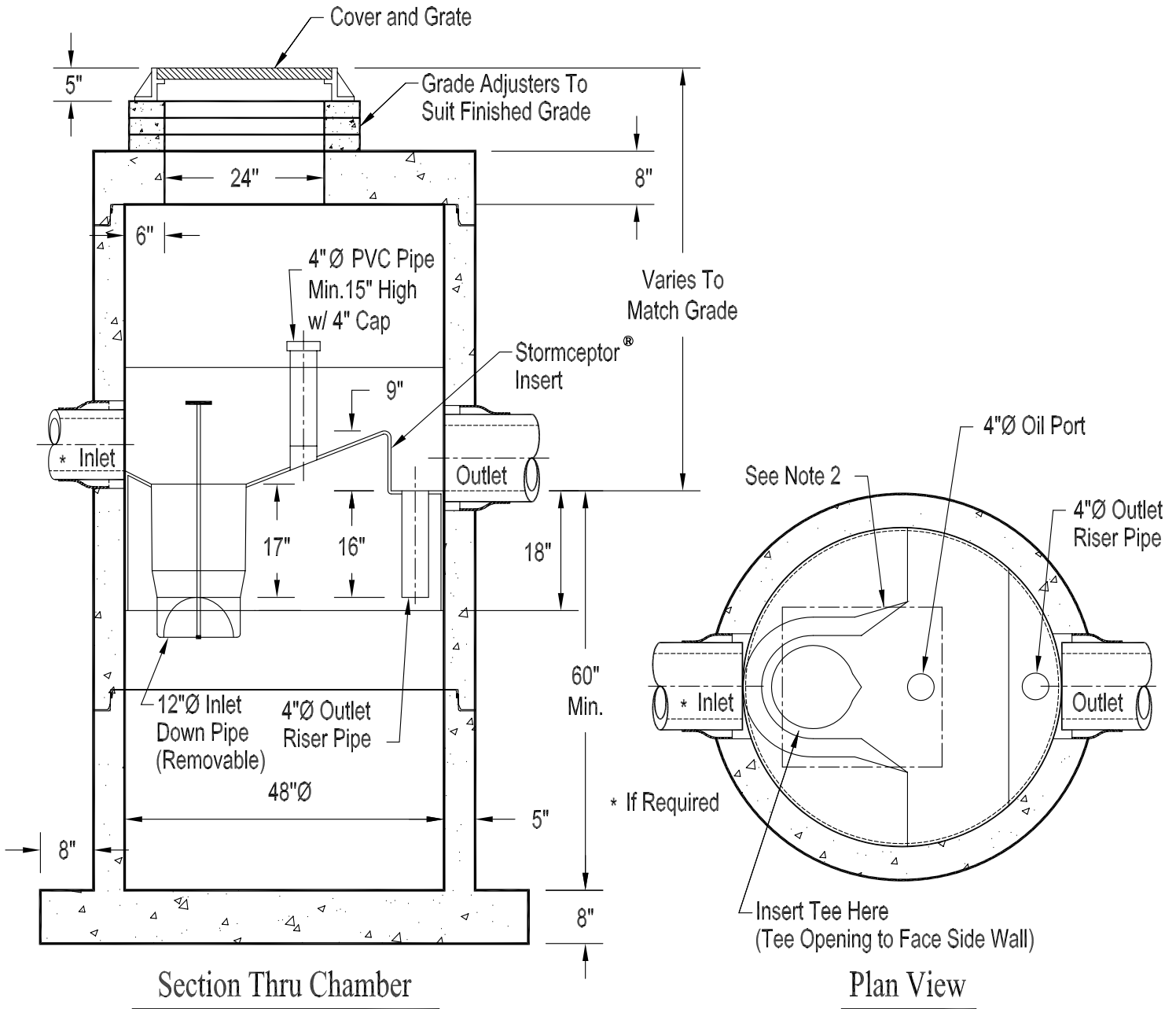
**TEST RESULTS:**

- STEP Report  
(Independent Verification)
- University of Coventry Study
- ETV Canada (Federal Verification)
- National Water Research Institute Test
- Westwood, MA Field Monitoring Study
- Edmonton, Canada Field Monitoring Study
- Seattle Field Monitoring
- Como Park, MN Field Monitoring Study
- Florida Atlantic University Submerged Stormceptor Testing
- Oil Removal Field Validation
- Sludge Analyses and Particle Size Analyses



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**STC 450i Precast Concrete Stormceptor®  
(450 U.S. Gallon Capacity)**



**Notes:**

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.



## MAINTENANCE OF STRUCTURAL BEST MANAGEMENT PRACTICES

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Structural Best Management Practices (BMP's) are utilized in both the public and private sectors to meet specific storm water quality standards established by regulatory agencies. Design Engineers and owners need to have a mutual understanding of the United States Environmental Protection Agency's (USEPA) National Pollutant Discharge Elimination System (NPDES), stormwater management program. Once only applicable to larger cities and projects, now most owners of storm sewer systems must have documented procedures in place for regular/routine maintenance of BMP's as part of their storm water management programs.

### **"How often do I have to clean these things?"**

This is the question most municipalities and owners who are dealing with storm water quality and implementation of structural BMP's often ask. Generally, maintenance should be done once a year, but it is advisable to check the unit after the first 6 months to determine the rate of sediment and oil accumulation and after the first year. The inspection frequency in subsequent years is based on observations made during the first year, as maintenance will vary from site to site.

There are several questions that the Design Engineer should consider when selecting a structural BMP to meet the storm water quality discharge standards and requirements.

- \* Has the BMP been conveniently located for future and long-term accessibility by maintenance personnel?
- \* Does the BMP require maintenance considered non-routine by the owner/municipality?
- \* Does the BMP require special parts or an off-line bypass?
- \* Does the owner/municipality have equipment and resources to effectively maintain the BMP?
- \* Does the BMP have documented maintenance procedures for review by owner/municipality?
- \* What are the sediment and oil capacities of the BMP and how will this effect frequency of maintenance?
- \* Is there an opportunity to reduce the frequency of costly maintenance of natural BMP structures (ponds, swales etc.) by placing an easier to maintain structural BMP upstream?

The owner/municipality also have several items that should be considered when selecting or approving a BMP.

- \* Who is responsible for maintenance of the BMP?
- \* Will the BMP be located on public or private property?
- \* Can in-house personnel and equipment effectively maintain the BMP?
- \* Will regular routine inspections and cleaning be scheduled into maintenance operations?
- \* Is funding established for the long-term operation and maintenance of the BMP?
- \* Does the owner/municipality have an effective mechanism in place to enforce the routine cleaning and maintenance of structural BMP' s installed as part of private/public developments?
- \* Has a maintenance program been included and approved during the project permitting phase?
- \* What are the long-term costs of maintaining the structural BMP in comparison to other products?

Municipal site plan agreements and by-laws should be strengthened to assist in regulating maintenance of BMP's. Further, development charges may be imposed to cover the cost for a dedicated enforcement officer to monitor and follow up on maintenance of BMP's on private sites.

One thing is clear, and that is BMP's must be maintained in order to operate properly. The performance of all storm water quality measures decrease as they fill with sediment. Since the maintenance frequency will be site specific, regular inspections and maintenance play a key role in the performance of BMP's.

## STORMCEPTOR MAINTENANCE

### INSPECTION OF STORMCEPTOR

Generally, maintenance is done once per year, but it is advisable to check the unit several times during the first year to determine the rate of sediment and oil accumulation. It is recommended that the unit be checked each 3 months for the first year. The inspection frequency in subsequent years is based on observations made during the first year. A maintenance inspection form should be completed annually to ensure timely maintenance and optimum performance of the Stormceptor.

The inspection is conducted by taking a sample from the unit using a clear plastic sampling tube. Commercial sampling tubes are available from water and wastewater equipment suppliers. The Stormceptor cover must be removed in order to take samples of the oil and sediment accumulation.

To check the level of sediment the sampling tube is lowered through the 24-inch discharge opening until it hits the bottom of the unit. Once the sampling tube is raised you can observe the level of sediment accumulation. Three samples should be taken and averaged. Maintenance should be performed once the sediment depth exceeds the guideline values provided in Table 1.

Table 1

#### Sediment Depths Indicating Required Maintenance

<b>Model (USG)</b>	<b>Sediment Depth mm (in.)</b>
900	150 (6)
1200	225 (7)
1800	300 (12)
2400	300 (12)
3600	375 (15)
4800	300 (12)
6000	450 (18)
7200	375 (15)

To check the level of oil in the Stormceptor the sampling tube is lowered through the 6-inch vent pipe into the upper portion of the separation tank. After removing

the sampler the water column can be examined. If more than 1 inch (approx. 15 USG) of oil (hydrocarbons) is observed then the oil should be removed.

## **CLEANING EQUIPMENT AND CONTRACTORS**

Stormceptor units are normally cleaned using vacuum trucks. These trucks will suck the water and pollutants out of the unit. The most widely used truck is the Vactor vacuum truck, but other manufacturers and equipment are available. Commercial companies can be found in the Yellow Pages under "Tank Cleaning" or "Septic Cleaning".

## **COST**

The cost of maintenance can vary widely, and depends on the number, and size of the Stormceptor unit to be cleaned. The typical cost is about \$600 per cleaning. The larger units may cost proportionally more. Economies of scale can be expected if several units are to be cleaned at once. A public bid to clean any size unit was received at \$400.00 per unit for a jurisdiction with over 20 units installed.

## **DISPOSAL OF WASTE**

The procedure used to dispose of the waste materials will depend upon the requirements in each jurisdiction. In general, the oil and other floating hydrocarbons are skimmed (pumped) off the surface for recycling. The sediment is removed from the Stormceptor by the vacuum truck. Local requirements will dictate sludge disposal options; several options include:

- the sludge is discharged directly to the sewerage treatment plant
- the sludge is dewatered into a dry material. The dried sludge would be taken to a landfill or incinerator (where acceptable). The clear water would be discharged into the sanitary sewer

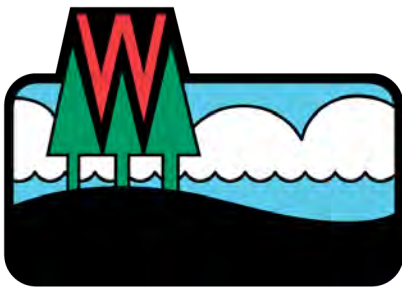
## **OTHER INFORMATION**

The owner of the Stormceptor should call the local, town, city, county, etc. official that is responsible for administering the stormwater management, drainage or water quality program for that jurisdiction to find out the specific reporting requirements in their area. You should be able to find this official in the municipal Department of Public Works, Engineer's Office or the state Department of Environmental Protection.

## APPENDIX V: FEDERAL AND STATE PERMITS, LICENSES AND APPROVALS

V-01	WDNR Solid Waste Processing Facility (License# 4587)
V-02	WDNR Hazardous Waste - SQG (US EPA ID No. WIR000142877)
V-03	DOT Number (2322446)
V-04	DOT Hazardous Material Registration
V-05	WDNR Solid Waste and /or Recyclable Transportation Service License (License #15810)
V-06	WDNR Hazardous Waste Transport Service License (License #15809)
V-07	WDNR Infectious Waste Transportation License (License #16903)
V-08	WDNR Storm Water Industrial No Exposure Certification (FIN No. 54508)
V-09	Village of Germantown Conditional Use Permit (CUP# 06-15)
V-10	Village of Germantown Certificate of Occupancy - Permit 053-12 (Issued August 14, 2012)
V-11	Village of Germantown Certificate of Occupancy - Permit 20GRM-B00040 (November 16, 2021)

**Enviro-Safe Resource Recovery Appendix  
V-01 - WDNR Solid Waste Processing Facility  
(License #4587)**



**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
SOLID WASTE FACILITY OPERATION LICENSE**

**License Number: 4587**

**SOLID WASTE FACILITY OPERATION LICENSE**

**Solid Waste Processing - General Not as Part of Landfill Operation**

Licensee Name: ENVIRO-SAFE CONSULTING LLC

Effective Date: October 01, 2021

Expiration Date: September 30, 2022

**Facility Information**

FID: 267193300

**ENVIRO-SAFE RESOURCE RECOVERY**

W130N10500 Washington Dr

Germantown WI 53022

Washington County (67)

DNR Region: SE

This license authorizes the licensee to operate the solid waste facility described above during the term hereof except as modified by the Department. This license is subject to and conditioned upon compliance with the provisions of chapter 289, Wis. Stats., and chapters NR 500-590, Wis. Adm. Code, any plan approval and modifications thereof, and any special order and modifications thereof issued by the Department. Any exemptions from the requirements of chapters NR 500-590, Wis. Adm. Code, issued for the facility are listed above.



# **SOLID WASTE PROCESSING OPERATIONS PLAN**

Enviro-Safe Resource Recovery  
Germantown, WI

**March 18, 2015**

**Stantec Project Number: 193703356**





Stantec Consulting Services Inc.  
1165 Scheuring Road  
De Pere, Wisconsin 54115  
Phone: 920-592-8400  
Fax: 920-592-8444

## SOLID WASTE PROCESSING OPERATIONS PLAN

ENVIRO-SAFE RESOURCE RECOVERY  
W130 N10500 WASHINGTON DRIVE  
GERMANTOWN, WI 53022

**Prepared on:**

March 18, 2015

**Prepared For:**

Jeffrey D. Vilione, President  
Enviro-Safe Consulting, LLC  
W130 N10500 Washington Drive  
Germantown, WI 53022

**Prepared By:**

Stantec Consulting Services Inc.  
12075 Corporate Parkway  
Mequon, WI 53092

Project Number: 193703356

A handwritten signature in blue ink that reads "Richard Pager".

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Richard Pager  
Senior Waste Specialist

A handwritten signature in blue ink that reads "Michael B. Roznowski".

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Michael B. Roznowski, CHMM, LEED Green Associate  
Senior Associate/Industrial Team Leader

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### FIGURES

- Figure 1 Site Location and Local Topography
- Figure 2 Site Location and Immediate Vicinity (Showing Wetlands)
- Figure 3 Facility Layout
- Figure 4 Property Topography (prepared by MSI General Corporation, 12/20/2011)

### APPENDICES

- Appendix A Chapter NR 502, Wisconsin Administrative Code
- Appendix B Enviro-Safe Solid Waste Closure Plan (August 14, 2012)
- Appendix C Solid Waste Facility Initial License Application

# PROFESSIONAL ENGINEER CERTIFICATION

I, David Boyd, hereby certify that I am a licensed professional engineer in the State of Wisconsin in accordance with the requirements of chapter A-E 4, Wisconsin Adm. Code, that this document has been prepared in accordance with the Rules of Professional Conduct in the ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR500 to 538, Wis. Adm. Code.

**NAME:** David Boyd

Official Stamp

**TITLE:** Senior Engineer

**COMPANY:** Stantec Consulting Services Inc.

**REGISTRATION NO:** E25632

**STATE:** Wisconsin



## 1.0 GENERAL

The Wisconsin Department of Natural Resources (WDNR) regulates all solid waste storage, transportation, transfer, incinerators, air curtain destructors, processing, wood burning, composting and municipal solid waste combustors under Chapter NR 502, Wisconsin Administrative Code, a copy of which is provided in Appendix A.

Unless exempt under the NR 502 no person may operate or maintain a solid waste processing facility unless the person complies with the general requirements in the rule and has obtained a plan of operation approval and an operating license from the WDNR. The contents of this Solid Waste Processing Operation Plan (the Plan), is designed to provide the necessary information to the WDNR to obtain an operating license.

### 1.1 General Facility Information

Enviro-Safe Resource Recovery (Enviro-Safe) operates a non-hazardous solid waste transfer station (< 50 tons per day) in accordance with WDNR License Number 4564 at W130 N10500 Washington Drive, Germantown, Washington County, Wisconsin (the Facility, the Property). The Facility is located in the Germantown Industrial Park as shown in Figures 1 and 2. Surrounding land uses include other industrial operations located to the south, north and west of the Facility. A stormwater retention pond and undeveloped land is located directly east of Enviro-Safe. The nearest residential property is located about 2,000 feet to the east of the Property. Primary access to the Facility is along Donges Bay Road which defines the southern boundary of the industrial park. The Facility was constructed in 2012.

Enviro-Safe is proposing to replace the Transfer Station operation license with a Solid Waste Processing Operation license. The addition of solid waste processing would enable Enviro-Safe to increase the amount of materials being sent to resource recovery facilities. These processed wastes would be in addition to the wastes that are currently shipped to these facilities by the transfer operation.

The portion of the site that is proposed to be used for the processing operations is shown on Figure 3. Site topography is shown by Figure 4. All processing operations will be conducted inside the existing building, with the processed material placed into the current nonhazardous storage area while awaiting shipment. The goal of this application is to allow Enviro-Safe to beneficially reuse or recycle a greater percentage of the solid waste streams currently managed by the Facility, while improving efficiencies in transportation and reducing the amount of material that requires landfilling. The processing permit will also allow the company to continue their growth which is limited by the 50 ton per day cap associated with their current permit.

Enviro-Safe performs other activities at their Germantown facility which are not affected by this application. These activities include being a 10-day hazardous waste transport facility, a used oil storage facility, a universal waste handling facility, and a storage and bulking facility for flammable solvents.

### 1.2 General Process Description

Enviro-Safe manages a non-hazardous solid waste transfer station at the Facility. Solid waste from commercial and Industrial clients throughout the region are transported to the Facility, aggregated and then shipped to various licensed facilities for recycling, beneficial reuse, energy recovery, treatment or disposal. The end-use facilities that Enviro-Safe ships wastes have appropriate regulatory approvals for the wastes that they accept.

Each end-use facility has strict acceptance criteria for the waste streams they can legally manage. Presently Enviro-Safe receives some waste streams from clients that do not meet the acceptance criteria at specific recycling facilities. These waste streams are then required to

utilize alternate facilities to manage the waste, which may be further away or may include disposal instead of recycle, beneficial reuse or energy recovery of the waste. By blending or comingling wastes from different clients in a processing operation, Enviro-Safe can effectively manage the characteristics of particular solid waste streams to meet acceptance limits for certain recycling facilities.

Enviro-Safe is proposing to perform solid waste processing of liquid and solid non-hazardous waste streams. Processing would consist of accepting similar waste streams from various clients. Candidate waste streams will be evaluated for processing through bench testing to determine if the materials are compatible.

Prior to processing (i.e., combining/mixing/blending), wastes will be evaluated to ensure they can be safely combined without adverse reactions. Based on Enviro-Safe's knowledge of its customers waste streams, the identification of similar and potentially compatible wastes that could be combined will be accessed prior to shipment. Compatibility testing, for wastes that appear to be compatible, will be performed at the on-site Enviro-Safe Laboratory. Compatibility testing will be performed only on wastes that have been prescreened as likely candidates for recycling/beneficial reuse/energy recovery, based on basic chemistry characteristics. The laboratory testing will be completed primarily by combining very small volumes of wastes, and evaluating the corresponding (if any) reactions (e.g., visual; temperature changes; odors; etc.). If no reactions are identified, the wastes would then be combined on a larger scale.

The processing, which will consist of blending or comingling compatible waste materials, will allow a larger percentage of the solid waste handled by Enviro-Safe to comply with the acceptance limits for recycling or beneficial reuse facilities. Fewer waste streams will require landfilling. The processing will also aid in the efficient transport of these wastes for resource recovery and management. Wastes to be combined would be solids and liquids. The waste processing area will be located within the existing building, as shown on Figure 3.

A description of the proposed methods of solid waste processing includes the following:

- Liquids with liquids (Drums and Totes)  
Solid waste products received in pails, drums or totes will be combined into a larger container by either pumping out the drums and totes, or directly pouring out drums using drum handling equipment. The final blended material will then be shipped in the larger filled container. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.
- Liquid with Liquids (Bulk Shipments)  
Larger volumes of liquids, which are either in totes or drums, will be pumped directly into a bulk tanker. During this process, the bulk tanker will be located in the adjacent tank farm secondary containment area. The existing onsite pumping system located in building 124 can pump liquids to the tank farm area. A tanker would be staged in this area; bulked liquids would be pumped into the staged tanker through the piping system. The liquids would be directly loaded into the tanker. Enviro-Safe believes that the tanker loading would be completed in less than an hour. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.
- Liquids with solids  
Small volumes could be managed directly via drum-to-drum transfer using drum handling equipment. Larger volumes would also use drum handling equipment to transfer the products into a larger tote. An opening in the top of the receiving tote or removal of the top of the receiving tote would be necessary to complete this action. The solid would be poured into the tote, while liquids would be added by either pumping or pouring. The material would remain in the tote for shipment. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.

- Solids with solids  
Small volumes could be managed directly via drum-to-drum transfer using drum handling equipment. Larger volumes would also use drum handling equipment to transfer the products into a larger tote. The material would remain in the tote for shipment. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.

These operations will not require the installation of any specific processing equipment.

### **1.3 Initial Site inspection**

WDNR solid waste representatives have been to the Facility multiple times. Thus, instead of an initial site inspection request, Enviro-Safe has provided instead a Solid Waste Facility Initial License Application, a signed copy is provided in Appendix C.



## 2.0 EXEMPTIONS

Enviro-Safe is not requesting any exemptions from the regulations.

## 3.0 LOCATIONAL CRITERIA

### **(3) LOCATIONAL CRITERIA FOR NONEXEMPT PROCESSING.**

**(a) Unless exempt under sub. (2), new or expanded processing facilities may not be located within any of the following areas, unless an exemption is granted under par. (b):**

All of the Enviro-Safe processing operations, from receipt of the wastes, staging, processing, storage of materials and shipment of waste and recyclables will occur within the existing, well-maintained building. The building has substantial concrete floors throughout with sufficient secondary containment to capture and control any potential spills without release to the environment.

Regular inspections of the exterior areas around the processing building, along with the implementation of Best Management Practices will assure there is minimal potential for the processing portion of the Facility to cause environmental pollution, nuisance conditions or bird hazard to aircraft. In accordance with paragraph (b), the Facility is exempt from the locational criteria under paragraph (a). Regardless of the exemption, each of the paragraph (a) conditions was evaluated for applicability with comments provided as appropriate.

#### **1. Within a floodplain.**

Based upon the FEMA Flood Insurance Rate Map Number 55131C0379D dated November 20, 2013 for the Village of Germantown (Community Number 550472), Washington County, Wisconsin, the Facility is not located in a floodplain area.

#### **2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.**

The industrial park and the Facility are serviced by Village of Germantown water utility. The nearest village water well is located at the north end of the industrial park near Mequon Road, which is well over 1,200 feet from the Facility. There are no private wells within 250 feet of the Facility.

#### **3. Within 250 feet of any navigable lake, pond or flowage.**

There is no navigable lake, pond or flowage near the Facility. A stormwater retention basin for the industrial park is located to the east of the Facility.

#### **4. Within 250 feet of any navigable river or stream.**

There is no navigable river or stream near the Facility.

#### **5. Within 250 feet of land owned by a person other than the owner or operator of the Facility, unless the Facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.**

The Facility is located within an industrial park and was built in 2012. The building is well constructed and well maintained. All solid waste processing will be located in the interior of the Facility. The nearest residential property is over 2,000 feet from the building.

#### **6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the Facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.**

There are no public parks or state natural areas in the area of the industrial park. There are no state trunk highways or interstates near the Facility. The solid waste processing operations will occur in a location which is greater than the set-back requirement.

- 7. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.**

The Facility will not be handling putrescible waste, nor is it within setback requirements for airports.

**(b) Processing facilities located within a building are not subject to par. (a) 2. to 7. However, the department may require containerized and enclosed solid waste processing facilities to meet specified locational criteria in par. (a) if there is significant potential for the facility to cause environmental pollution as defined in s. 283.01 (6m), Stats., nuisance conditions or bird hazard to aircraft. The department may grant exemptions from par. (a) 2. to 7., only upon demonstration by the applicant of circumstances which warrant the exemption. Exemption from compliance with par. (a)1. may not be granted.**

The Enviro-Safe processing operations will occur within an existing building, thus is not subject to par. (a) 2. to 7. Thus, there is minimal potential for the Facility to cause environmental pollution, nuisance conditions or bird hazard to aircraft.

## 4.0 PLAN OF OPERATION

### **(4) PLAN OF OPERATION – NONEXEMPT PROCESSING FACILITIES.**

Unless exempt under sub. (2), no person may establish or construct a solid waste processing facility prior to obtaining approval in writing from the department of a plan of operation for the facility. Unless otherwise approved by the department in writing, the plan shall be submitted in accordance with s. NR 500.05, shall contain engineering plans specified under sub. (5), shall provide a design which complies with the operational requirements in sub. (6) and shall include a report containing, at a minimum, the following information:

#### **(a) A legal description of the property and the facility boundaries.**

<b>Facility Name:</b>	Enviro-Safe Resource Recovery
<b>Facility Location:</b>	W130 N10500 Washington Drive, Germantown, WI 53022
<b>County:</b>	Washington
<b>Latitude/Longitude:</b>	43.2079/-88.07069 / -089.6541
<b>Facility Location</b>	NW 1/4 of the SE ¼ of section 25, Town 9N, Range 20 E
<b>Facility Telephone:</b>	(262) 790-2500
<b>Owner Name:</b>	Enviro-Safe Resource Recovery
<b>Owner Address:</b>	W130 N10500 Washington Drive, Germantown, WI 53022
<b>SIC Code or NAICS – Primary:</b>	541620 Environmental Consulting Services

Figures 1 and 2 show the location of the Facility and topography of the surrounding area, along with wetlands in the area. The facility is located in an industrial park, with the ground surface sloping gently to the east and south. Water discharges into storm sewers in the streets in the industrial park. East of the industrial park is a drainage ditch which directs water to the south into the Menomonee River, approximately 2 miles south of the Facility.

#### **(b) The present ownership of the proposed facility property.**

The legal name of the company is Enviro-Safe Consulting, LLC. Enviro-Safe Resource Recovery is the marketing name for the Facility in Germantown. The Property itself is owned by JDV Real Estate Holdings, LLC.

#### **(c) Land use within 1/4 mile of the proposed Facility. Particular note shall be made of parks, hospitals, nursing homes and areas of archaeological and historical significance.**

No known parks, nursing homes, hospitals or areas of archaeological significance are located within ¼ mile of the Facility. Land use in the area surrounding the Facility is industrial, as the Facility is located in the Germantown Industrial Park. Industrial operations occur north, west and south of the Facility. Farm fields are located east of the Property, as shown on Figure 2.

#### **(d) The proposed service area, including population and major industries.**

The Facility services Clients primarily in the State of Wisconsin, varying from small to large generators of wastes. Since the client base is not residential, no specific population is serviced by the Facility. In addition, the client mix is varied since it is made up primarily of manufacturers. In general the received wastes are outdated, unused, off specification products as well as waste residues from production. Enviro-Safe does not anticipate that the processing operation alone will by itself increase the geographic service area; however long-term marketing efforts hopefully will as the business continues to grow.

#### **(e) The consistency of Facility development with county solid waste plans and land use plans.**

This Facility services a specific market by managing certain wastes from commercial and industrial operations. These types of wastes are not normally considered in the county wide solid waste plans.

The Village of Germantown has issued a conditional use permit for the Enviro-Safe Facility. Enviro-Safe prefers to first work with and gain approval of this operation from the WDNR. When WDNR approval is achieved, Enviro-Safe will be required to work with the village, such that the Conditional Use Permit can be revised to include the new processing operation.

Solid waste processing operations will not occur until approval is gained from both WDNR and the Village of Germantown.

**(f) The predominant types of vegetation and wildlife within the proposed facility boundaries.**

The Facility does have a lawn which surrounds the building, and a line of trees east of the site that separates it from adjacent farm fields. With the stormwater pond and farm fields east of the facility, the wildlife present is that which is common to the urban environment. Existing vegetation and wildlife will not be impacted since the proposed processing operation will be within the building.

**(g) The persons responsible for facility construction and operation.**

The Facility is managed by Jeffrey D. Vilione.

**(h) A timetable for facility construction, shakedown and operation and an operating schedule for the facility. All facilities operated more than 4 hours per day shall be equipped with a toilet and wash basin or have those facilities available within a reasonable distance.**

The building at the facility is already in existence, and no construction is necessary to implement the processing operation. Toilet and wash basin areas are already available. All equipment is presently on site needed to operate the processing facility.

The processing operations entail utilizing drum pumps or drum tipping equipment on forklift trucks to consolidate liquids and solids from smaller containers, such as pails and drums to larger containers such as totes or a bulk tanker. The processing permit will not require the purchase and installation of large capital equipment.

**(i) A complete materials balance for the facility, specifying amounts and characteristics of solid waste received and amounts and characteristics of products and wastes generated by the Facility.**

Current Waste Characterization and Acceptance

Enviro-Safe accepts both solid and liquid wastes at the facility. Prior to acceptance, all wastes are properly characterized and records maintained on a Profile Sheet. Enviro-Safe has an on-site laboratory to assist in waste characterization. The characterization determines the appropriate management method for each waste stream. Enviro-Safe does not accept any material that does not have an approved Profile. Wastes are not accepted at Enviro-Safe until an outlet for the waste material has been identified and the waste stream has been preapproved for disposal at an off-site location.

The waste shipments are received, via truck, in pails, drums, boxes, bags or totes. The shipment unloads into the building through one of three loading docks. When received, containers are inspected and evaluated to ensure the shipment matches the preapproved Profile. The individual containers of a shipment are then temporarily stored in appropriately designated locations at the Facility (refer to Figure 3) according to, waste type and compatibility.

Currently, after sufficient waste has been aggregated, the waste streams are transferred directly into trucks for shipment to the recycling/disposal facility in the same container they were received. Shipment of the waste is to appropriate recycling/disposal facilities, which are located either in or out of state. Facilities are chosen primarily based upon their ability and licensing to manage specific solid waste streams. Whenever possible, waste materials are managed by recycling/beneficial reuse/energy recovery, instead of solid waste disposal.

Types of Wastes Received

Enviro-Safe receives several types of solid wastes from a variety of companies, most of which are located in Wisconsin. Currently less than 50 tons of total waste is maintained on site at any one time. The amounts received are equal to the amount sent off-site. In 2014, 550 to 600 tons of solid waste was managed at the Facility.

Solid Waste Management Facilities

The solid wastes were currently transferred to the following waste management facilities:

Company	Lbs Received	Tons Received	Overall %
Covanta	907,746	453.9	99.6
US Ecology / EQ	3,600	1.8	.04

Solid Waste Processing

Enviro-Safe’s goal by obtaining the solid waste processing approval is increase the volume of waste sent off-site for recycling/beneficial reuse/energy recovery via mixing of individual waste streams. Waste streams currently managed at the Facility cannot be sent to certain vendors (e.g., Covanta) since they do not meet individual vendor acceptance criteria. Through processing, the blended materials will comply with acceptance criteria.

Prior to processing (i.e., combining/mixing/blending), wastes will be evaluated to ensure they can be safely combined without adverse reactions. Enviro-Safe’s knowledge of its customers permits the identification of similar and potentially compatible wastes that could be combined, prior to shipment. Testing for wastes that appear to be compatible will be performed at the on-site Enviro-Safe Laboratory. Compatibility testing will be performed only on wastes that have been prescreened as likely candidates for recycling/beneficial reuse/energy recovery, based on basic chemistry characteristics. The laboratory testing will be completed primarily by combining very small volumes of wastes, and evaluating the corresponding (if any) reactions (e.g., visual; temperature changes; odors; etc.). If no reactions are identified, the wastes would then be combined on a larger scale.

A description of the proposed methods for solid waste processing includes the following:

- Liquids with liquids (Drums and Totes)  
Solid waste products received in pails, drums or totes will be combined into a larger container by either pumping out the drums and totes, or directly pouring out drums using drum handling equipment. The final blended material will then be shipped in the larger filled container. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.
- Liquid with Liquids (Bulk Shipments)  
Larger volumes of liquids, which are either in totes or drums, will be pumped directly into a bulk tanker truck. During this process, the bulk tanker will be located in the adjacent tank farm secondary containment area. The existing onsite pumping system located in building 124 can pump liquids to the tank farm area. A tanker would be staged in this area, bulked liquids would be pumped into the staged tanker through the piping system. The liquids would be directly loaded into the tanker. Enviro-Safe believes that the tanker loading would be completed in less than an hour. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.
- Liquids with solids  
Small volumes could be managed directly via drum-to-drum transfer using drum handling equipment. Larger volumes would also use drum handling equipment to transfer the products into a larger tote. An opening in the top of the receiving tote or removal of the

top of the receiving tote would be necessary to complete this action. The solid would be poured into the tote, while liquids would be added by either pumping or pouring. The material would remain in the tote for shipment. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.

- Solids with solids

Small volumes could be managed directly via drum-to-drum transfer using drum handling equipment. Larger volumes would also use drum handling equipment to transfer the products into a larger tote. The material would remain in the tote for shipment. Enviro-Safe will ensure the waste meets the disposal facilities acceptance criteria prior to shipment.

These operations will not require the installation of any specific processing equipment.

**(j) The estimated quantities and characteristics of wastes containing free liquids resulting from facility operation and methods of their treatment or disposal. All wastewater resulting from the process shall be discharged into a sanitary sewer or other system approved by the department.**

Wastes containing free liquids will be managed at the site, however all free liquid containing waste will be sent off site as a solid waste. All free liquid containing waste will be received in containers (pails; drums; totes; etc.), and will be shipped off site in drums, totes or tanker trucks. No waste from the processing operation will be discharged into the sanitary sewer. The only discharge into the sanitary sewer at the Facility is domestic wastewater. Accidentally spilled liquids on the processing area floor will be collected with absorbents and managed via disposal as a solid waste. The processing floor provides sufficient secondary containment for any potential spill.

**(k) The names and locations of all solid waste disposal facilities at which solid waste from the processing plant will be disposed, and potential contractual arrangements and distribution plans for recovered solid wastes or products produced.**

Non-hazardous solid wastes are shipped to the following facilities for management, depending upon the waste, its characteristics and the potential management options:

Covanta Energy  
2320 S Harding Street  
Indianapolis, IN 46221

US Ecology / EQ Detroit  
1923 Fredrick Street  
Detroit, MI 48211

Enviro-Safe strives to recycle as much of the solid wastes that they accept through beneficial reuse and recycling. It is expected that with the ability to process wastes, the percentage of the solid waste streams that can be directed to resource recovery can be increased. Solid wastes which cannot be accepted by the current resource recovery facilities can be processed with similar materials to meet the acceptance limits at the Facility. The processing will allow Enviro-Safe to reduce the quantity of material that is landfilled and more efficiently transport wastes to the recovery facilities.

As shown by the previous data, during 2014 over 99% of the wastes managed in the solid waste stream were shipped to the Covanta Facility, where the wastes are burned for energy recovery. Enviro-Safe strives to beneficially manage solid wastes, instead of landfilling them. Waste is sent for energy recovery whenever possible; however some waste streams are not acceptable for energy recovery due to their characteristics. The processing facility will be operated to blend compatible wastes to permit more waste streams to be beneficially reused.



**(l) A proposed design providing enclosure for all installed processing equipment. Explosion-prone equipment such as primary shredders shall be placed in a separate room with explosion venting or explosion suppression equipment.**

Processing equipment consists of containers (drums and totes), drum handling equipment, and pumps and hoses. All of this equipment currently exists at the Facility. The container utilized to blend the solid wastes will be the container the waste is shipped to the end-use facility. Explosion prone equipment will not be used in the processing operation. Figure 3 shows the location of the processing operation.

**(m) A proposed design providing for shrouding and dust collection and removal equipment for the receiving area and all dry processing units such as shredders, screens, air classification devices, magnetic separators and similar equipment and all conveyor transfer points where dust is generated. Any air collected in this manner shall be directed through appropriate air pollution control equipment before being discharged.**

No dust collection equipment will be planned with the processing operation. Materials will be comingled inside the building. During processing activities, doors for the Facility will remain closed. If any dust is generated during processing, it will be minimal and once settled will be swept and placed into a container for management. It is not anticipated that dust will be an issue. If a particular waste would be identified as extremely dry and thus have a great likelihood of causing a dust issue, it will not be processed.

**(n) A discussion of any additional procedures for the control of dust, odors, fire, windblown materials and potential explosions and for the handling of the waste in the case of major processing facility breakdown. Dust within a facility shall be controlled so that operators are not exposed to undue health risk.**

Dust – Potential processed wastes managed may include some powders. If processed, they will be placed into “wet” materials to control dusting conditions. Based on the operators experience dust generation is not anticipated to be a problem.

Odors – No unusual or significant odors will be produced from the processing operation. If during compatibility testing it is discovered that either the individual or mixed waste materials have a significant odor or the potential for off-site impacts exists, the waste will not be processed.

Fire – All waste materials are handled inside the building, which has fire protection present. Materials that are flammable will not be managed in the solid waste processing area. Wastes will be evaluated for compatibility in the onsite laboratory prior to combining any waste streams together.

Windblown Materials – No windblown materials are expected to be produced at the Facility.

Note the following:

- The processing operation occurs indoors.
- Transportation of wastes is in enclosed trailers.
- Doors will be closed at all times when processing is being performed

Potential Explosions – None of the processing equipment is designed to accumulate uncontrolled or unsafe conditions (e.g., pressure) that could lead to an explosion. Compatibility testing performed by the lab prior to comingling waste streams will assure no potential explosions.

Waste Handling During Major Processing Facility Breakdown – If a major event would occur that would prohibit the facility from operating, customers would be notified of the facility’s inability to accept and process waste. First option would be for the customer to store their waste, until the facility is becomes operational. A second option would be to direct haul the material from the customer to the resource recovery facility.

Worker Exposure – Wastes that would pose an exposure issue will not be processed. This will be determined during the compatibility assessment by the onsite laboratory.

**(o) A proposed design providing for all buildings enclosing processing equipment to have a sloped concrete floor with floor drains connected to a sanitary sewer or other system approved by the department.**

All processing of waste will be performed in containers, not on a tipping floor. In the event of a spill, the concrete floor is already constructed to ensure all materials are contained within the building. The floor is sloped to a sump area which would collect any possible spill. The floor is not connected to sanitary sewer. The floor area is sufficient to contain any potential spill without release to the environment. The spill containment capacity on the processing/staging area floor is over 2,000 gallons, which would easily handle any spill that could occur in the processing operation. The total drum storage capacity of the solid waste area is 120 55-gallon drums or a total of 6,600 gallons. The spill containment of a drum storage area should be ten percent of the total volume stored. Any spills/leaks would be handled by sweeping, absorbents if needed, and placement of residuals into containers for transport.

**(p) A proposed design providing for all processing, receiving or storage areas not enclosed by a building to be graded at a minimum 1% slope and surfaced with a material which will adequately support heavy equipment, resist frost action, provide a wearing surface and prevent contamination of groundwater. Runoff from these areas shall be directed to a sanitary sewer or other system approved by the department.**

Not applicable. Processing system will be enclosed indoors. The processing floor is a substantial concrete floor with no joints that has been epoxy coated. All spills are immediately cleaned up.

**(q) A discussion of the quality and quantity of air discharge from plant operations and the need for any permits. For thermal processing facilities, the report shall include a proposed design to provide adequate temperature and residence time in the reaction chambers to assure complete processing and necessary air pollution control equipment to meet state air pollution control regulations.**

No air permits will be needed for processing system. Dust generation is expected to be minimal, and no thermal processing is being proposed.

**(r) A discussion of the types of vehicles and access routes used to transport solid waste to and from the facility, including the estimated increase in traffic, and traffic flow patterns within the facility.**

Access routes to the facility vary but are well-established due to the existing business park. Trucks enter the facility from a paved driveway along the north side of the building and access the loading docks at the rear of the building. Shipments of wastes are primarily by enclosed trucks, which are unloaded at the loading docks. Trucks transporting materials off site are enclosed trailers, loaded at the loading docks. It is also possible that tanker trucks could be loaded by pumping liquids through the piping system going out to the tank farm.

It is anticipated that the processing operation will add very little volume to the trucking transportation in the area. Access to the business park is primarily along Donges Bay Road and Washington Drive. Increases in trucking would more likely come from growth in the business itself. At this time Enviro-Safe anticipates a modest growth of approximately 10 additional trucks per year.

Traffic within the building would allow unloading of trucks directly onto the tipping floor in the 124 room. At the time of unloading, the material to be processed would be placed in the Processing staging area. After processing, waste would be moved to the non-hazardous storage area in the 124 room. When the waste is shipped off site, it would be transported from the storage area to the loading dock, for shipment off site.

**(s) A proposed design providing for access roads of all-weather construction and a maximum 10% grade. The intersection of the access road with an existing highway shall be designed to provide sufficient sight distance and provide for minimum interference with traffic on existing highways.**

Access roads in the Facility are already paved and meet grade requirements. Donges Bay Road and Washington Drive are a designed to handle truck traffic, and as part of the industrial park provides appropriate design needs for truck traffic.

**(t) A proposed design limiting access to the processing facility by means of fencing, natural barriers or other methods.**

The processing operation is located indoors, controlling access both during operations and after hours (when the buildings will be locked).

**(u) Information to document that the size and configuration of the facility grounds, building and equipment, including the facility layout, drainage structures, building design and major facility equipment, as specified to be shown in the engineering plans, are adequate for management of the proposed waste quantities and processes.**

Figure 3 shows the layout of the Facility and operational locations in the building. The storage room has the ability to store 120 55-gallon drums of waste material (approximately 70 tons). The Waste staging processing area would have the ability to store at least 20 drums (7-10 tons) prior to processing.

**(v) Provisions for protection of groundwater and surface water during facility construction and operation.**

The Facility is already constructed. Both the storage and proposed processing operations are located inside a building with epoxy coated concrete floors.

**(w) A discussion of possible operational hazards and necessary safety precautions.**

The major hazards identified in the operation are:

- Vehicular traffic in paved yard
  - Signage; speed limitation; proper traffic flow
  - Notification to vendors of expectations
- Material moving equipment (e.g., forklifts moving waste products between the storage and operating area)
  - Signage; speed limitation; proper traffic flow
  - Visibility/corner mirrors
  - Employee training
- Reaction due to non-compatible wastes being combined
  - Bench scale compatibility testing
  - Monitoring of wastes during comingling
  - Appropriate personal protective equipment during comingling activities
  - Employee training
- Spills of materials during processing
  - Maintenance of concrete floors and floor coatings
  - Selection of proper equipment
  - Proper use of selected equipment
  - Spill management materials
  - Employee training

**(x) Procedures for facility closure.**

Facility closure, if necessary, will be relatively simple. All solids wastes in storage will require removal from the Facility. After removal of containers or product in containers, remaining containers will be disposed of, and all remaining residuals will be collected (e.g., sweeping, mopping) and managed as solid waste.

## 5.0 ENGINEERING PLANS

**(5) ENGINEERING PLANS.** The plan of operation shall include a set of engineering plans and maps which contain the following information unless an exemption is granted by the department in writing:

**(a) An existing conditions map, which shows the entire facility and the area within 1/4 mile. The minimum scale shall be 1" = 400'. This map shall include the proposed facility boundary, property lines, easements and rights-of-way, buildings foundations, roads, utilities and other structures; topography, drainage swales, surface waters, wetlands, floodplains and similar drainage features; wooded areas; location of soil borings and test pits; features of historical and archaeological significance; and other features as appropriate.**

- Figure 1 shows the location of the entire facility in relation to the City of Germantown,
- Figure 3 shows the facility layout.

**(b) A facility plan which includes the proposed facility access roads and traffic patterns, buildings, scales, utility lines, drainage diversion, screening, means of access control, final topography, areas to be cleared of vegetation and other design features. The extent of coverage and scale shall be the same as that for the existing conditions map.**

The facility plan for the proposed Facility is the same as the existing conditions.

**(c) A proposed layout of each facility building including receiving, processing and loadout areas. The minimum scale shall be 1" = 20'. The building layout shall also show the location of all major facility equipment, including material handling equipment, air handling and air pollution control equipment, floor drains and process sewers and other pertinent design features.**

The existing facility, along with the layout of all major equipment, is shown in the previously described Figures.

**(d) At least one cross section drawn through the receiving area, each process line and the loadout area indicating existing topography, limits of excavation, proposed final grade and other pertinent design features. More cross sections may be necessary depending on the complexity of the facility design.**

Since this is an existing facility and the proposed processing operations will not alter current layout, no cross sections are provided.

## 6.0 MINIMUM OPERATIONAL REQUIREMENTS

**(6) MINIMUM OPERATIONAL REQUIREMENTS. No person may operate or maintain a solid waste processing facility except in conformance with any approved plan of operation and the following minimum requirements:**

**(a) A sign, acceptable to the department, shall be posted at the entrance to the facility which indicates the name, license number, the hours of operation, a list of all prohibited wastes, the penalty for unauthorized use, all necessary safety precautions and other pertinent information.**

Enviro-Safe agrees to install such a sign if deemed required by the Department.

**(b) Access to the processing facility shall be limited to those times that an attendant is on duty.**

The building will be locked when unattended. Thus, all access to the solid waste and processing will be restricted.

**(c) A processing facility shall be operated under the close supervision of responsible individuals who are thoroughly familiar with the requirements and operational procedures of the plant.**

The primary contact responsible for the solid waste processing is Jeff Villone. Kenneth Bronson will be the supervisor of day to day operations. Both individuals are thoroughly familiar with the requirements and operational procedures of the facility.

**(d) Unloading of solid waste shall take place only in approved, designated areas. All solid waste, with the exception of that in the process line, shall be stored in conformance with s. NR 502.05.**

All wastes are unloaded via loading dock on the east side of the building, as shown on Figure 3. Storage of wastes will be in pails, drums or totes. Only wastes in durable non leaking containers will be accepted. Used oil and universal waste are stored in separate areas in the 124 Room. Storage of flammable materials is located in separate rooms in the facility with separate access.

**NR 502.05(6) No person may operate or maintain a noncontainerized storage facility except in conformance with an approved plan of operation and the following minimum operational requirements:**

This does not apply since all waste will be stored/processed in containers.

**(e) The operation shall be conducted in a manner to prevent public health hazards and nuisances, including keeping the processing facility and adjacent area clean and free from litter, and taking effective means to control flies, rodents and other insects or vermin.**

This is described in the preceding section outlining compliance with applicable sections of NR 502.05. All operations will occur indoors.

**(f) Waste containing free liquids, sludge or asbestos waste shall be excluded unless plans specifically addressing the handling of these materials have been submitted to the department and approved in writing. Solid waste which is flammable or explosive may not be accepted. Infectious waste may be accepted only in accordance with s. NR 526.12.**

Wastes containing free liquids and sludge will be managed as outlined in section 4 (h) above. No asbestos waste will be processed at the Facility. Flammable or explosive waste will not be handled in the solid waste processing operation.

**(g) Equipment shall be provided to control accidental fires and arrangements shall be made with the local fire protection agency to provide immediate services when needed.**

During onsite laboratory analysis prior to processing, it will be confirmed that the processed material will not self-generate heat when mixed and stored indoors; thus the process operations is not considered to be a fire hazard.

The building has a fire suppression system to control accidental fires, and is serviced by the Germantown Fire Department. Enviro-Safe has communicated with the local fire inspector and state officials on minimum requirements for fire control. Currently a variety of appropriate hand-held fire extinguishers are planned to be placed throughout the Facility, but in particular adjacent the electrical components and machinery.

Fire protection and emergency medical services for the facility is provided by the Germantown Fire Department. They provide service 24 hours per day, 7 days a week.

**(h) All operators shall be trained on the sources, quantities and characteristics of the wastes to be processed; process line start up procedures, routine monitoring and cleanup procedures; daily processing and equipment maintenance schedules; methods of controlling access, odors and windblown materials; methods of controlling fires and explosions, use of appropriate safety equipment; persons to contact concerning operational problems and emergencies. An operator training manual containing this and other pertinent operating information shall be prepared and maintained at the facility. Means of communication with emergency facilities shall be provided.**

Personnel are trained in the management of waste materials in the Facility. Processing operations will add the step of evaluating the wastes for compatibility, as well as transferring wastes from container to container. All required monitoring, cleanup, equipment maintenance, access control, managing of odor and windblown materials, fire control, emergency management, operational problems, will continue as per the existing operation. A training manual will be prepared as part of facility operations, and standard practices will be developed.

**(i) Open burning of solid waste may not be conducted.**

No open burning will be conducted at the Facility.

**(j) Materials resulting from composting or similar processes and offered for sale or public distribution shall be:**

**1. Stabilized to eliminate pathogenic organisms and to ensure that the materials do not reheat upon standing.**

Not applicable. No composting will be done at the Facility.

**2. Free of sharp particles which could cause injury to persons handling the compost.**

Not applicable. No composting will be done at the Facility.

**3. Free of toxins which could cause detrimental impacts to public health or the environment.**

Not applicable. No composting will be done at the Facility.

**(k) Dust generated by the unloading of solid waste and the operation of the processing facility shall be controlled in accordance with the state air management rules so as not to create nuisance conditions.**

Enviro-Safe agrees to monitor operations to ensure no nuisance conditions are created, and create and maintain adequate controls as appropriate. All parking and access roads at the facility are paved.



**(l) If required by the department, permanent records of facility performance shall be maintained and submitted to the department with the relicensing application or as specified in the plan approval. Records shall indicate types, sources and amounts of solid waste processed, minor plant modifications performed, process monitoring data, amounts and characterization testing of process outputs, and other data as required by the department when granting the license.**

Records will be maintained as to the wastes received by generator, the volume, how processed, and the day shipped off site for management. Enviro-Safe agrees to maintain any additional records required by the Department.

**(m) Arrangements shall be made with an approved solid waste disposal facility for use in the event that the processing facility is rendered inoperable or is not able to completely process the solid waste.**

Wastes would be sent off for management at the facilities identified in Section 4 (k) above without processing. Agreements are already in place with each of these vendors.

**(n) By-products or residues shall be disposed of in facilities approved to receive such waste or shall be handled by an alternative method approved by the department.**

Approvals are issued by the management facilities for the waste streams shipped to them.

**(o) All areas disturbed during facility construction or operation shall be graded to a maximum slope of 3 horizontal to 1 vertical, covered with 6 inches of topsoil and seeded or otherwise protected from soil erosion. All borrow areas shall be abandoned in accordance with Wisconsin department of transportation procedures.**

Not applicable. There will be no disturbed areas or borrow areas as part of this project.

## 7.0 CONSTRUCTION DOCUMENTATION

**(7) CONSTRUCTION DOCUMENTATION.** The department may require that a registered professional engineer document facility construction and render an opinion whether the facility has been constructed in substantial conformance with the approved plan. When a documentation report is required, it shall be prepared in accordance with the approved plan of operation and s. NR 500.05. Operation of the facility may not commence until the construction documentation report is approved in writing by the department and a license is issued. The department may issue a license prior to facility construction or construction documentation.

Not applicable

## 8.0 MONITORING

**(8) MONITORING.** Specific monitoring requirements and testing procedures for new, expanded and existing processing facilities will be determined by the department based on a review of the potential for environmental pollution. The department may require the owner or operator of any processing facility or any person who permits the use of property for that purpose to conduct monitoring as follows:

**(a) Air quality monitoring.**

Air quality monitoring should not be necessary, unless significant nuisance dust or debris is generated as part of operations. Since the operations will be performed indoors with the doors closed, generation of nuisance dust is not anticipated.

**(b) Product testing and waste characterization.** The frequency of testing and parameters to be analyzed will be determined based on a review of the proposal and complexity of the product. The quality control program will correlate with the nature of the waste to be processed and final uses proposed for the material.

Individual wastes are characterized by the Generator prior to acceptance at Enviro-Safe. Prior to processing (i.e., combining/mixing), specific wastes will be evaluated to ensure they can be safely combined without adverse reactions. Compatibility testing will be performed at the on-site Enviro-Safe lab. Compatibility testing will be performed only on wastes that have been prescreened as likely candidates for recycling/beneficial reuse/energy recovery, based on basic chemistry characteristics. The laboratory testing will be completed primarily by combining very small volumes of wastes, and evaluating the corresponding (if any) reactions (e.g., visual; temperature changes; odors; etc.). If no reactions are identified, the wastes would then be combined on a larger scale. Post processing testing is not anticipated as being performed, since this information will be known from the compatibility testing. Enviro-Safe does have the onsite laboratory to fingerprint any wastes that may have concerns with meeting acceptance limits at the receiving facility.

**(c) Groundwater and surface water monitoring.** The frequency and type of monitoring and analysis will be determined based on a review of the project.

Groundwater monitoring will not be necessary as the processing activities will occur indoors on substantial concrete floors and the material to be processed does not contain or generate water.

**(d) Periodic assessments of plant operation, process feasibility and marketability analyses of processed materials.**

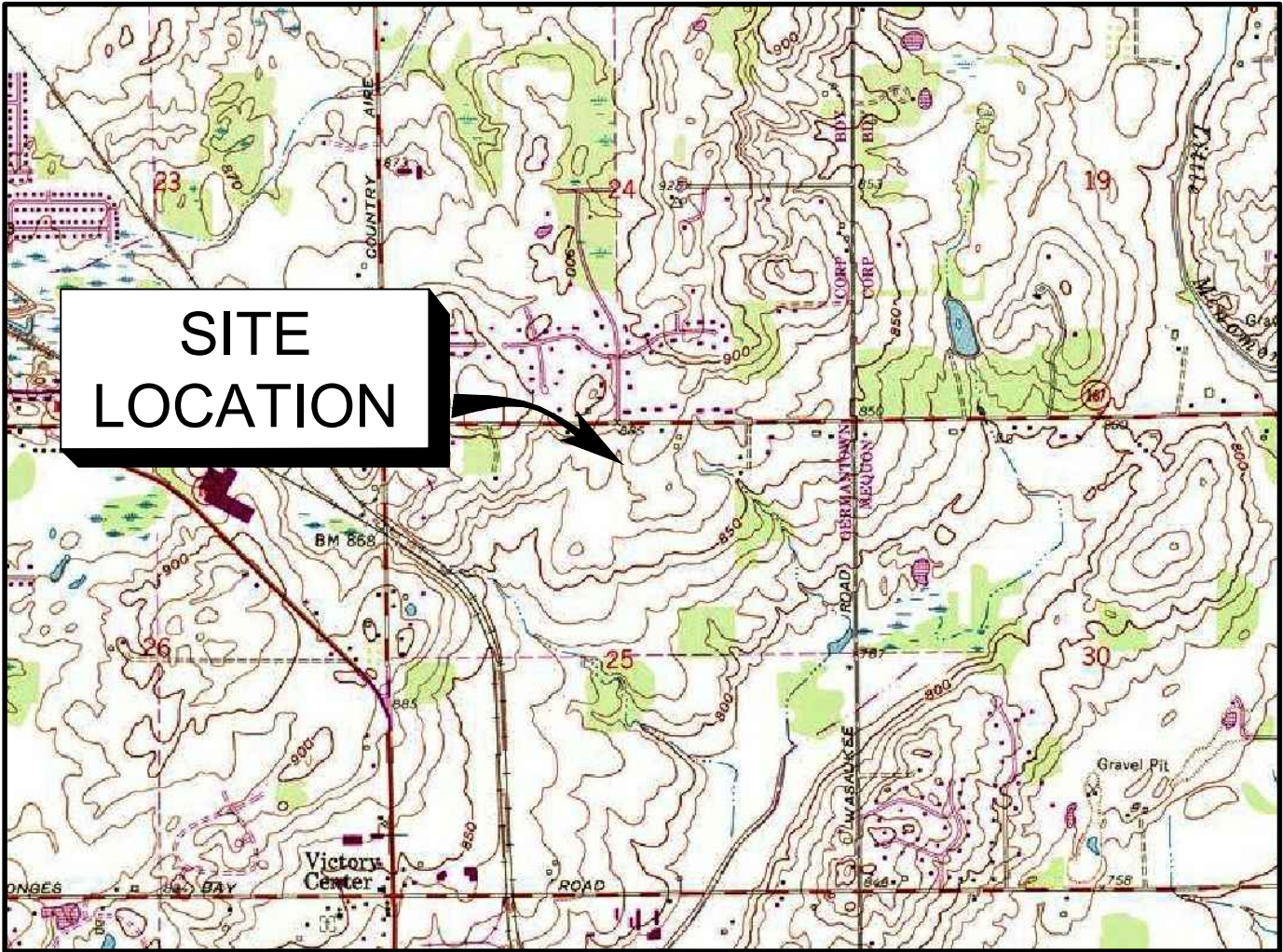
Enviro-Safe agrees to conduct any assessments of plant operations as required by the Department. The process feasibility and marketing analysis of processed materials will periodically be performed by Enviro-Safe as part of their standard business practice.

## 9.0 OWNER FINANCIAL RESPONSIBILITY

Currently, Enviro-Safe has provided the Village of Germantown an Irrevocable Standby Letter of Credit to address closure of the facility. See Appendix B for this documentation.

## FIGURES

- FIGURE 1: SITE LOCATION AND LOCAL TOPOGRAPHY**
- FIGURE 2: SITE LOCATION AND IMMEDIATE VICINITY (SHOWING WETLANDS)**
- FIGURE 3: FACILITY LAYOUT**
- FIGURE 4: PROPERTY TOPOGRAPHY (prepared by MSI General corporation, 12/20/2011)**



**SITE  
LOCATION**

SCALE IN FEET

1" = 2000'



CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

BASE MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE, MENOMONEE FALLS, WISCONSIN, 1994 (NATIONAL GEOGRAPHIC HOLDINGS, INC.)



1165 Scheuring Road, De Pere, Wisconsin 54115  
Phone: 920-592-8400 Fax: 920-592-84844

**SITE LOCATION  
& LOCAL TOPOGRAPHY**

**ENVIRO-SAFE RESOURCE RECOVERY  
W130 N10500 WASHINGTON DRIVE  
GERMANTOWN, WISCONSIN**

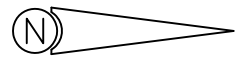
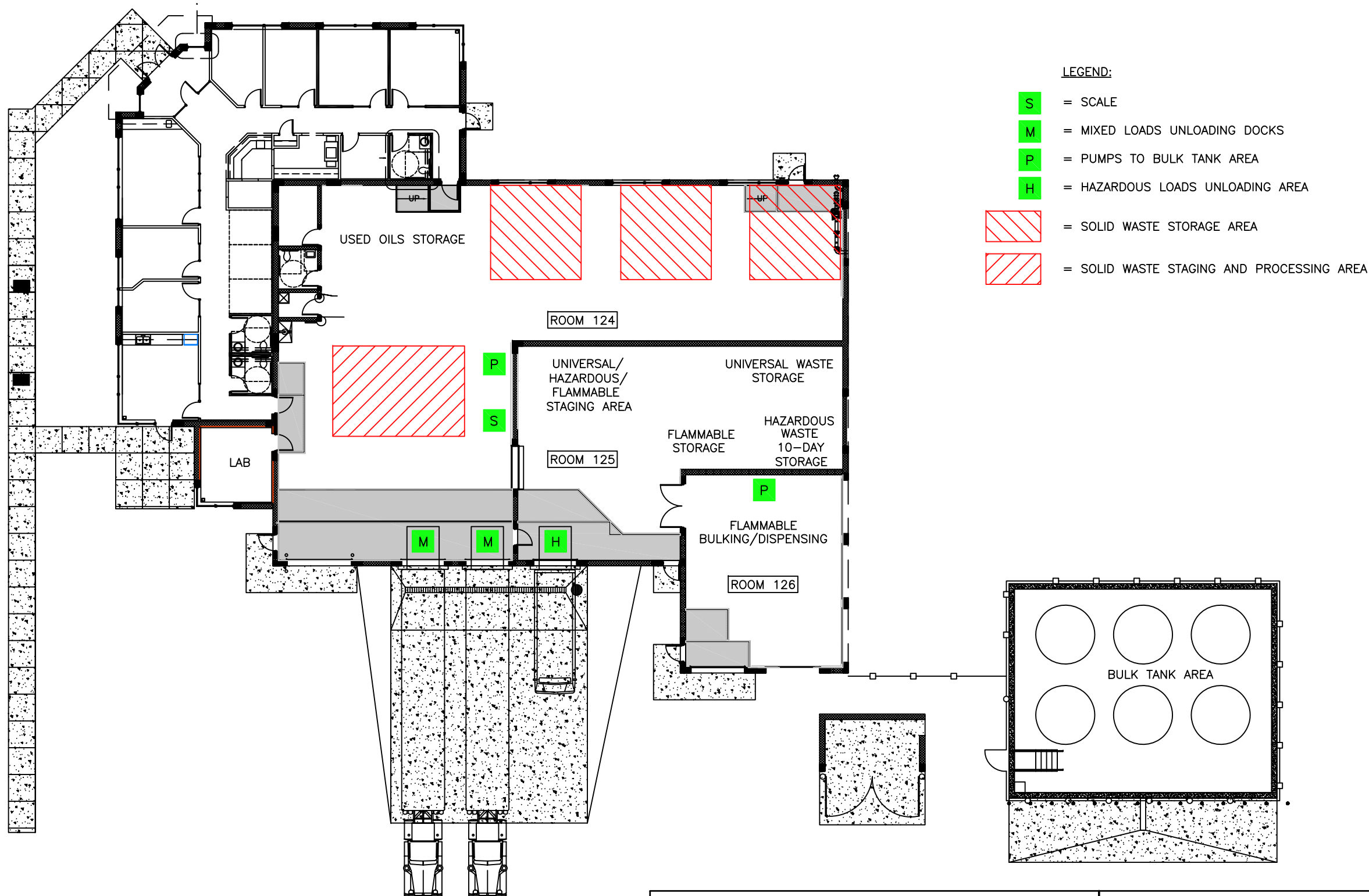
*This drawing and all information contained thereon is the property of Stantec. Stantec will not be held liable for improper or incorrect usage. Professional seals and signatures do not apply to electronic drawing files. The user assumes all responsibility and risk for the accuracy and verification of all information contained in electronic files.*

DATE: 12/03/14	DRAWN BY: JRB	PROJECT MANAGER: MBR	PROJECT NUMBER: 193703356	FIGURE 1
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APPROXIMATE SCALE IN FEET



1165 Scheuring Road, De Pere, Wisconsin 54115  
 Phone: 920-592-8400 Fax: 920-592-8444

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DATE: 12/01/14    DRAWN BY: JRB    REVISION BY: AJS 4/1/15    PROJECT NUMBER: 193703356    FIGURE 3

**SITE LAYOUT**

ENVIRO-SAFE RESOURCE RECOVERY  
 W130 N10500 WASHINGTON DRIVE  
 GERMANTOWN, WISCONSIN



## APPENDIX A

### **CHAPTER NR 502, WISCONSIN ADMINISTRATIVE CODE**

## Chapter NR 502

### SOLID WASTE STORAGE, TRANSPORTATION, TRANSFER, INCINERATION, AIR CURTAIN DESTRUCTORS, PROCESSING, WOOD BURNING, COMPOSTING AND MUNICIPAL SOLID WASTE COMBUSTORS

NR 502.01	Purpose.	NR 502.08	Solid waste processing facilities.
NR 502.02	Applicability.	NR 502.09	Incinerators.
NR 502.03	Definitions.	NR 502.10	Air curtain destructors.
NR 502.04	General requirements.	NR 502.11	Woodburning facilities and open burning.
NR 502.05	Storage facilities.	NR 502.12	Yard, farm, food residuals and source-separated compostable material composting facilities.
NR 502.06	Collection and transportation services.	NR 502.13	Municipal solid waste combustors.
NR 502.07	Transfer facilities.		

**Note:** Corrections made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1997, No. 500.

**NR 502.01 Purpose.** The purpose of this chapter is to help ensure that efficient, nuisance-free and environmentally accepted solid waste management procedures are practiced in this state and to outline the requirements regarding licensing and operational requirements for solid waste storage, transportation, transfer, incinerators, air curtain destructors, processing, woodburning, composting and municipal solid waste combustors. This chapter is adopted under s. 227.11, Stats., and ch. 289, Stats.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. Register, May, 1992, No. 437, eff. 6-1-92; am. Register, June, 1996, No. 486, eff. 7-1-96.

**NR 502.02 Applicability. (1)** Except as otherwise provided, this chapter governs all solid waste storage, transportation, transfer, incinerators, air curtain destructors, processing, woodburning, composting and municipal solid waste combustors as defined in s. 289.01 (35), Stats., except hazardous waste facilities as defined in s. 291.01 (8), Stats., and regulated under chs. NR 660 to 679, and metallic mining operations as defined in s. 293.01 (5), Stats., and regulated under ch. NR 182.

**(2)** This chapter does not apply to the design, construction or operation of industrial wastewater facilities, sewerage systems and waterworks treating liquid wastes approved under s. 281.41, Stats., or permitted under ch. 283, Stats., nor to facilities used solely for the disposal of liquid municipal or industrial wastes which have been approved under s. 281.41, Stats., or permitted under ch. 283, Stats., except for facilities used for the disposal of solid waste.

**(3)** This chapter does not apply to the design, construction or operation of facilities used solely for the treatment of municipal wastewater sludge as defined and regulated under ch. NR 204.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. (1), Register, May, 1992, No. 437, eff. 6-1-92; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, May, 1992, No. 437; am. (1), cr. (3), Register, June, 1996, No. 486, eff. 7-1-96; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661.

**NR 502.03 Definitions.** The terms used in this chapter are defined in s. NR 500.03.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88.

**NR 502.04 General requirements.** All facilities regulated under this chapter shall comply with the following requirements:

**(1) PERFORMANCE STANDARDS.** (a) Unless an exemption is granted by the department under par. (b), no person may establish, construct, operate, maintain or permit the use of property for any facility regulated under this chapter, or any non-commercial soil borrow source designated to be used in the construction of a specific facility regulated under this chapter, within an area where there is reasonable probability that the facility will cause any of the following:

1. A detrimental effect on any surface water.
2. A significant adverse impact on wetlands as provided in ch. NR 103.
3. A detrimental effect on groundwater quality or will cause or exacerbate an attainment or exceedance of any preventative action limit or enforcement standard at a point of standards application as defined in ch. NR 140. For the purposes of design, the point of standards application is defined by s. NR 140.22 (1).
4. A take of an endangered or threatened species or other activity prohibited under s. 29.604, Stats.
5. The migration and concentration of explosive gases in any facility structures, excluding any leachate collection system or gas control or recovery system components or in the soils or air at or beyond the facility property boundary in excess of 25% of the lower explosive limit for such gases at any time.
6. The emission of any hazardous air contaminant exceeding the limitations for those substances contained in s. NR 445.04 or 445.05.

**Note:** Sections NR 445.04 and 445.05 were repealed effective 8-1-08.

(b) Exemptions from the requirements of par. (a) 4. to 6. may be granted by the department only upon demonstration by the applicant of circumstances which warrant the exemption. Exemptions from compliance with par. (a) 3. may be granted only according to the procedures in ch. NR 140. Exemptions from compliance with par. (a) 2. may be granted only in accordance with the standards in ch. NR 103. Exemptions from compliance with par. (a) 1. may not be granted.

**(2) INITIAL SITE INSPECTION.** (a) Any person intending to establish or expand a solid waste facility listed in subds. 1. to 8. which is subject to locational criteria under this chapter or a soil borrow source listed in subd. 9. shall submit a written request to the department for an initial site inspection for the purpose of evaluating compliance with the performance standards listed in sub. (1) and the applicable locational criteria contained in this chapter:

1. Noncontainerized storage facilities.
  2. Transfer facilities.
  3. Processing facilities.
  4. Incinerator facilities.
  5. Air curtain destructor facilities.
  6. Woodburning facilities.
  7. Composting facilities.
  8. Municipal solid waste combustor facilities.
  9. Non-commercial soil borrow source designated to be used in the construction of a specific solid waste facility listed in subds. 1. to 8.
- (b) The written request for initial site inspection shall comply with s. NR 500.05 (5) to (8) and shall contain a cover letter identifying all of the following:
1. The applicant and authorized contact.



2. Type of facility and operation proposed.
3. Property ownership.
4. Location by quarter — quarter section.
5. Present land use.
6. All potential conflicts with the performance standards listed in sub. (1).

(c) The written request for initial site inspection for solid waste facilities listed in par. (a) 1. to 8. shall contain all of the following additional information:

1. Identification of any known potential impacts to endangered and threatened species in accordance with s. 29.604 (4), Stats., and the federal endangered species act or historical, scientific or archeological areas in accordance with s. 44.40, Stats., including any prior studies or surveys conducted at the proposed site.

2. An enlarged 7.5 minute USGS map or other base map having a minimum scale of 1" = 500 feet. The map scale and contour intervals shall be revised as necessary to sufficiently show relief, surface waters, floodplains, existing land use conditions and all water supply wells and residences located within one mile of the property boundaries of the proposed facility.

**Note:** One copy of the information required by pars. (b) and (c) shall be submitted to the department's field office responsible for the area in which the facility is proposed to be located, and one copy shall be submitted to the department's solid waste management section in Madison.

(d) The department shall conduct an initial site inspection within 22 business days of receipt of a written request which complies with the requirements of this subsection. Depending on the season, follow up inspections may be necessary to identify any obscured features of the proposed property such as wetlands. Within 22 business days of completing the inspection, the department shall render a preliminary opinion regarding the suitability of the site location and identify any additional studies or information that is to be submitted to determine if a proposed solid waste facility or soil borrow source complies with the performance standards listed in sub. (1) and the applicable locational criteria contained in this chapter. A favorable opinion from the department under this paragraph does not guarantee that performance standards or locational criteria will be met.

**(3) CLOSURE.** Except as otherwise specified in this chapter or in a department issued approval, the owner or operator of any facility regulated under this chapter, or any person who permits the use of property for such purposes, shall at a minimum complete all of the following:

(a) Within 5 calendar days after ceasing to accept waste at the facility, remove all putrescible waste and containerize, properly utilize or dispose of all other waste.

(b) Within 60 days after ceasing to accept waste at the facility, remove all waste.

(c) Unless otherwise specified in a department issued approval, the following minimum requirements shall also be met by the owner or operator of a facility for which a plan of operation is required under this chapter:

1. At least 60 days prior to ceasing to accept waste at the facility for an extended period, the department shall be notified in writing and a sign shall be posted in a prominent location notifying users of the date on which the facility will cease to accept waste. In the case of ceasing to accept waste for an extended period due to unplanned and unforeseeable circumstances, such as fire or equipment failure, department notification and sign posting shall be completed as soon as practical. Alternatives to posting a sign may be implemented with department concurrence for facilities which are not open to the general public.

2. Within 60 days of ceasing to accept waste, the facility shall be closed in accordance with the approved plan of operation.

**Note:** Fees for plan review, license and other applicable items are charged in accordance with ch. NR 520. Licenses for facilities regulated under this chapter are transferrable.

**(4) ENVIRONMENTAL REVIEW.** The department may require an applicant for an initial license or for approval of expansion of an existing solid waste facility listed in the following pars. (a) to (f) to submit information with the plan of operation report as specified by the department to determine the need for an environmental impact report or environmental impact statement:

- (a) Noncontainerized storage facilities.
- (b) Transfer facilities.
- (c) Processing facilities.
- (d) Incinerator facilities.
- (e) Composting facilities.
- (f) Municipal solid waste combustor facilities.

**(5) ENVIRONMENTAL MONITORING.** The department may require the owner or operator of any facility for which a plan is required under this chapter, or any person who permits the use of property for such purposes, to conduct environmental monitoring in accordance with ch. NR 507 and plans approved by the department, including surface water, groundwater, unsaturated zone or gas monitoring. The department may require monitoring after closure of the facility.

**(6) FINANCIAL RESPONSIBILITY.** The department may require the owner or operator of any facility for which a plan is required under this chapter to provide proof of financial responsibility for the cost of closure of the facility. The department may require the owner or operator to submit closure cost estimates for removal, transport and ultimate disposal of the wastes. If proof of financial responsibility is required by the department, it shall be submitted prior to licensing of the facility, or as otherwise specified by the department.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; r. and rec. Register, June, 1996, No. 486, eff. 7-1-96; CR 05-020: r. and rec. (1) (a) 4., (2) (c) 1. and 2. to be (2) (c) 1. and r. and rec., renum. (2) (c) 3. to be (2) (c) 2. Register January 2006 No. 601, eff. 2-1-06.

**NR 502.05 Storage facilities. (1) GENERAL.** (a) Unless exempt under sub. (2), (3) (b) or (d) to (i), owners and operators of solid waste storage facilities shall comply with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(b) Unless exempt under sub. (2) or (3) (a) to (j), all new or expanded solid waste storage facilities shall comply with initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with the applicable locational criteria listed in sub. (4).

(c) Unless exempt under sub. (2) or (3) (b) to (i), owners and operators of solid waste storage facilities shall store all waste in containers in compliance with the operational requirements for containerized storage facilities under sub. (5).

(d) Unless wastes are stored only in containers, or the facility is exempt under sub. (2) or (3) (b) to (i), owners and operators of solid waste storage facilities shall comply with operational requirements for noncontainerized storage facilities under sub. (6).

(e) Unless exempt under sub. (2) or (3), all new or expanded solid waste storage facilities shall obtain approval of a plan of operation as specified in sub. (8), and comply with requirements for engineering plans and construction documentation in subs. (9) and (10).

(f) Unless exempt under sub. (2) or (3) (a) to (j), owners and operators of solid waste storage facilities shall obtain an operating license from the department.

(g) No person may operate or maintain a storage facility for municipal solid waste combustor residue except in compliance with sub. (7).

(h) No person may operate or maintain a storage facility for infectious waste unless the person complies with s. NR 526.09.

**(2) EXEMPTIONS FOR HOUSEHOLD WASTE.** Containers for household wastes, serving a single household and located on the

property where the waste is generated are exempt from all requirements of this chapter.

**(3) OTHER EXEMPTIONS.** The following storage facilities are exempt from all requirements of this chapter, except as specified.

(a) Storage facilities utilizing containers such as lugger boxes or rolloffs for solid waste storage serving apartments, commercial establishments, business establishments and industries which are located on the premises served, provided the facility complies with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b) and the operational requirements listed under sub. (5).

(b) Pit silos used for the storage of by-products from fruit, vegetable or grain processing operations where the by-products are to be used for animal feed, provided the facility is in compliance with applicable portions of ch. NR 213.

(c) Facilities for high volume industrial waste or wood residue where the waste is stored at the point of generation for less than 72 hours prior to being transported for disposal or beneficial reuse and the facility complies with the general requirements listed under s. NR 502.04 and is operated and maintained in an environmentally sound and nuisance-free manner.

(d) On site storage facilities at a solid waste processing facility, solid waste incinerator facility, or municipal solid waste combustor facility, provided the facility is in compliance with applicable portions of s. NR 502.08, 502.09 or 502.13.

(e) Facilities that store only used oil which is managed in compliance with ch. NR 679.

(f) Infectious waste storage facilities which are exempt from licensing under s. NR 526.09.

(g) Materials recovery facilities as defined in s. NR 500.03 (140). A materials recovery facility which serves one or more responsible units shall either hold a valid self-certification or be exempted from self-certification under s. NR 544.16 (2).

(h) Contaminated soil storage facilities in compliance with ch. NR 718.

(i) Facilities for the storage of industrial byproducts which are managed in compliance with ch. NR 538.

(j) Noncontainerized storage facilities which meet all of the following criteria are exempt from all other requirements of this chapter:

1. The facility meets the performance standards and closure requirements specified in s. NR 502.04 (1) and (3) (a) and (b), and complies with the operational requirements for noncontainerized storage facilities listed under sub. (6).

2. The solid waste does not include putrescible waste such as garbage, municipal refuse or residue produced by the burning of municipal solid waste.

3. The waste is free of noxious odors and not readily transported by wind or water unless it is stored to prevent such transport.

4. The facility exists less than 9 months from the time of initial storage to the removal of all waste.

5. The volume of waste stored at the facility does not exceed 5,000 cubic yards at any time.

6. The combined total volume of waste stored at the facility over the allowable 9 month period does not exceed 10,000 cubic yards.

7. Waste storage does not occur within a floodplain, or within 100 feet of any public or private water supply well, navigable lake, pond, flowage, river or stream, or within 20 feet of the facility property boundary.

(k) Containerized storage facilities within a building that meet all of the following criteria are exempt from all other requirements of this chapter:

1. Comply with performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

2. New or expanded facilities shall comply with initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with applicable locational criteria in sub. (4).

3. Obtain an operating license from the department.

4. Accept a maximum of 50 tons of waste per day and store a maximum of 1,000 tons of waste at any one time.

5. Comply with operational requirements for containerized storage facilities in sub. (5).

6. Do not accept municipal solid waste combustor residue.

7. Prior to or with the initial license application, and with each subsequent license application, submit a cover letter containing the following certification:

I, \_\_\_\_\_(authorized individual name), \_\_\_\_\_(position title), hereby certify that I am the owner or authorized representative of the solid waste containerized storage facility, \_\_\_\_\_(facility name), located at \_\_\_\_\_(location address); that I am aware of ss. NR 502.04 and 502.05, Wis. Adm. Code applicable to the facility; and that the facility is in compliance with the codes.

\_\_\_\_\_  
(signature of authorized individual)      \_\_\_\_\_  
(signature date)

8. If the certification required in subd. 7. is not submitted with a license renewal application prior to expiration of any license period, the facility shall pay compliance inspections fees in accordance with s. NR 520.04 (7) for up to 2 inspections completed by the department during the subsequent license period.

**(4) LOCATIONAL CRITERIA FOR STORAGE FACILITIES.** (a) Except as otherwise specified in this section, new or expanded solid waste storage facilities may not be located in any of the following areas, unless an exemption is granted under par. (b):

1. Within a floodplain.

2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.

3. Within 250 feet of any navigable lake, pond or flowage.

4. Within 250 feet of any navigable river or stream.

5. Within 250 feet of land owned by a person other than the owner or operator of the facility, unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.

6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.

7. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.

(b) The locational criteria listed under par. (a) 2. to 7. do not apply to containerized waste storage or storage within an enclosed building. However, the department may require containerized and enclosed solid waste storage facilities to meet specified locational criteria in par. (a) if there is significant potential for the facility to cause environmental pollution as defined in s. 283.01 (6m), Stats., nuisance conditions or bird hazard to aircraft. The department may grant exemptions from the requirements of par. (a) 2. to 7. only upon demonstration by the applicant of circumstances which warrant the exemption. Exemptions from compliance with par. (a) 1. may not be granted.

**(5) OPERATIONAL REQUIREMENTS FOR CONTAINERIZED STORAGE FACILITIES.** No person may operate or maintain a containerized storage facility except in conformance with the following minimum operational requirements:

(a) Storage containers shall be durable, rust resistant, nonabsorbent, leak-proof, easy to clean and able to effectively contain the stored waste. If garbage or similar putrescible wastes are stored, the containers shall have close-fitting, fly-tight covers and be constructed of light-weight durable material.

(b) Covers and containers shall be maintained in good condition.

(c) Containers handling municipal solid waste shall be removed and emptied at least once per week, or more often if conditions warrant. Containers handling nonputrescible industrial waste shall be removed and emptied as necessary, but at least once every 90 days.

(d) All weather access shall be provided and maintained.

(e) Effective means shall be provided to control flies, rodents and other vectors.

(f) Objects too large for the containers shall be stored in a nuisance-free manner.

(g) Periodic clean-up and maintenance of the storage container and surrounding area shall be conducted to keep it aesthetically pleasing and nuisance-free. This maintenance shall be the responsibility of the property owner where the containers are located as well as the owner of the containers.

(h) Gates, fencing and an attendant or other appropriate access restrictions shall be provided, as specified by the department, to prevent nuisance conditions or if mechanical compaction equipment is part of the facility.

(i) Disposal of solid waste is not allowed at a storage facility.

(j) Solid waste may not be burned.

(k) The facility shall be operated and maintained in a sanitary, nuisance-free manner so as to protect the environment and the public health.

(L) Adequate storm water drainage shall be maintained on and around the facility.

**(6) OPERATIONAL REQUIREMENTS FOR NONCONTAINERIZED STORAGE FACILITIES.** No person may operate or maintain a non-containerized storage facility except in conformance with an approved plan of operation and the following minimum operational requirements:

(a) All weather access shall be provided and maintained.

(b) Effective measures shall be taken to control flies, rodents and other vectors.

(c) Periodic maintenance or clean-up of the facility shall be conducted to keep it aesthetically pleasing and nuisance-free.

(d) Gates, fencing and an attendant shall be provided as specified by the department.

(e) Solid waste shall be disposed of at a licensed facility approved by the department.

(f) Solid waste may not be burned.

(g) The facility shall be operated and maintained in a sanitary, nuisance-free manner so as to protect the environment and the public health.

(h) Adequate drainage shall be maintained on and around the facility.

**(7) OPERATIONAL REQUIREMENTS FOR MUNICIPAL SOLID WASTE COMBUSTOR RESIDUE STORAGE FACILITIES.** Except for on site storage at a municipal solid waste combustor approved under s. NR 502.13, no person may maintain or operate a storage facility for residue produced by burning municipal solid waste unless the person has obtained an operating license under sub. (1), and written approval of a plan of operation under sub. (8), for the facility. Residue storage areas shall be designed, operated and maintained in compliance with the applicable operational requirements specified under sub. (5) or (6) and the following:

(a) The residue shall be wetted at all times during storage to prevent dust emissions. Alternative methods of dust control shall be approved by the department prior to implementation. Provi-

sions shall be made to prevent the release of residue into the air in the residue handling areas.

(b) The storage area shall have an impervious surface on which the residue is stored and a collection system for any liquids coming into contact with the residue. All liquid that comes into contact with the residue shall be collected and treated at a wastewater treatment plant approved by the department.

(c) Access to the storage areas shall be restricted to authorized personnel only. Fencing or other means of access control acceptable to the department shall be maintained around the storage facility.

**(8) PLAN OF OPERATION.** No person may establish or construct a solid waste storage facility or expand an existing facility unless the person has obtained a plan of operation approval from the department. The plan of operation shall specify the intent and objectives of the proposal, indicate methods and procedures to minimize adverse environmental impacts, and provide a design which complies with the applicable operational requirements specified under subs. (5) to (7). Unless otherwise approved by the department in writing, the plan shall be submitted in accordance with s. NR 500.05 and shall contain, at a minimum, the following information:

(a) A legal description of the facility.

(b) The present ownership of the property.

(c) The proposed facility size, a description of the present land use of the facility and the area within 1/4 mile of the facility.

(d) The area served, including population and major industries.

(e) The consistency of facility development with areawide solid waste plans and land use plans.

(f) The predominant types of vegetation and wildlife within the proposed facility boundaries.

(g) A complete materials balance for the storage facility, specifying amounts and characteristics of solid waste.

(h) The types of vehicles and access routes used to transport solid waste to and from the facility including the traffic flow patterns within the facility, and an estimate of the increased quantities of traffic on access routes to and from the facility.

(i) The estimated quantities and characteristics of wastes containing free liquids resulting from facility operations and methods of their storage and disposal.

(j) The persons responsible for facility construction and operation.

(k) Provisions for protection of groundwater and surface water during facility construction and operation.

(L) A discussion of possible operational hazards and necessary safety precautions.

(m) A discussion of design features and logic including the equipment capacity or size. Information shall be included to justify the size and configuration of the receiving area; methods of handling wastes containing free liquids resulting from operations such as floor drains, sewers and water treatment facilities; sizing of storm water drainage control structures; design life of any building and facility equipment; and methods of screening the facility from the surrounding area.

(n) An operations and maintenance manual which specifies the operating and maintenance procedures; operating personnel responsibilities; hours of operation; daily operating schedule; equipment maintenance schedules; methods of controlling explosions, dust, fire, odors and windblown materials; special waste handling procedures; methods of controlling access; daily cleanup procedures; person responsible for operation; facility licensee and owner; record keeping procedures; emergency procedures for handling of frozen conditions during cold weather; methods to prevent solid waste from burning; any additional procedures for the handling of the waste in the case of major facility breakdown; and any other pertinent information.



**(9) ENGINEERING PLANS.** The plan of operation shall include a set of engineering plans and maps which contain the following information unless an exemption is granted in writing by the department:

(a) An existing conditions map, which shows the entire facility and the area within 1/4 mile. The minimum scale shall be 1" = 400'. This map shall include the proposed facility boundary, property lines, easements and right-of-way; building foundations, roads, utilities and other structures; topography, drainage swales, surface waters, wetlands, floodplains and similar drainage features; wooded areas; location of soil borings and test pits; features of historical and archaeological significance; and other features as appropriate.

(b) Proposed facility access roads and traffic patterns, buildings, scales, utility lines, drainage diversion, screening, means of access control, final topography, areas to be cleared of vegetation, and other design features. The extent of coverage and scale shall be the same as that for the existing conditions map.

(c) A proposed layout plan which shows the receiving, storage and loadout areas. The minimum scale shall be 1" = 20'. Plan details shall include conceptual designs for the receiving area configuration and traffic flow patterns, storage area and equipment configuration, loadout area and equipment configuration, and other design features.

(d) At least one cross section shall be drawn through the receiving, storage and loadout areas indicating existing topography, limits of excavation, proposed final grades and other pertinent design features. More cross sections may be necessary depending on the complexity of the facility design.

**(10) CONSTRUCTION DOCUMENTATION REPORT.** The department may require the applicant to submit a construction documentation report for any storage facility which is required to submit a plan of operation. When a documentation report is required, it shall be prepared in accordance with the approved plan of operation and s. NR 500.05. Operation of the facility may not commence until the construction documentation report is approved in writing by the department and a license is issued. The department may issue a license prior to facility construction or construction documentation approval.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. (4) (a), renum. (1) (b) to be (1) (c), cr. (1) (b), (2) (e) and (13), Register, May, 1992, No. 437, eff. 6-1-92, cr. (1) (d), (2) (f), am. (5) (intro.), Register, October, 1994, No. 466, eff. 11-1-94; cr. (2) (g), Register, May, 1995, No. 473, eff. 6-1-95; r. and recr., Register, June, 1996, No. 486, eff. 7-1-96; renum. (3) (i) to be (3) (j) and cr. (3) (i), Register, December, 1997, No. 504, eff. 1-1-98; CR 04-113: am. (3) (g) Register June 2005 No. 594, eff. 7-1-05; CR 05-020: am. (1) (a) (intro.), (b), (3) (intro.), (a) and (4) (a) 6., r. (1) (a) 1. to 3., renum. (1) (c) and (d) to be (1) (g) and (h), cr. (1) (c) to (f) and (3) (k) Register January 2006 No. 601, eff. 2-1-06; correction in (3) (e) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661.

## NR 502.06 Collection and transportation services.

**(1) GENERAL.** (a) Owners and operators of solid waste collection and transportation services shall comply with s. NR 502.04.

(b) Unless exempt under sub. (2), no person may operate or maintain a collection or transportation service unless the person has obtained an operating license from the department.

(c) No person may transport or ship infectious waste or items mixed with infectious waste, unless the person complies with s. NR 526.10.

**Note:** Services for collection and transportation of asbestos waste are required to meet the minimum requirements of the applicable air management rules in chs. NR 400 to 499.

**(2) EXEMPTIONS.** The following collection or transportation services shall comply with the general requirements specified in s. NR 502.04, but are exempt from all other requirements of this chapter:

(a) Services for the collection and transportation of only gravel pit spoils, quarry materials, earth materials or salvageable materials other than those listed in s. 287.07 (3) or (4), Stats.

(am) Services for the collection and transportation of the materials listed in s. 287.07 (3) and (4), Stats., after the materials have been processed for reuse or recycling by conversion into a con-

sumer product or a product which is used as a raw material in a commercial or industrial process.

(ar) Services for the collection and transportation of the materials listed in s. 287.07 (4), Stats., only from commercial, retail, industrial and governmental operations that comply with general operational requirements listed in sub. (4) (e), (eg) and (er).

(b) Services for the collection and transportation of only ordinary solid waste from a single household or solid waste amounting to less than 20 tons per year.

(c) Services for the collection and transportation of sludge from municipal wastewater or water supply treatment plants provided it is handled in accordance with ch. 283, Stats.

(d) Services for the collection and transportation of only waste materials regulated and licensed under s. 281.48, Stats.

(e) Governmental services consisting solely of vehicles used to collect and transport roadside litter from town, village, city, county, state and federal highway right-of-way. Litter shall be disposed of at a licensed disposal facility.

(f) Services for the collection and transportation of dredge material regulated by permit or contract under s. 30.20, Stats.

(g) Services for the collection and transportation of wastes generated by an industrial company which do not travel on public roads and which utilize vehicles owned by the company.

(h) Services for the collection and transportation of whey or waste materials from fruit or vegetable processing operations.

(i) Services for the transportation of infectious waste or items mixed with infectious waste in compliance with s. NR 526.10.

(j) Services for the collection and transportation of contaminated soil in compliance with ch. NR 718.

(k) Services for the collection and transportation of industrial byproducts in compliance with ch. NR 538.

**(3) OPERATIONAL REQUIREMENTS FOR TRANSPORTATION OF RESIDUE PRODUCED BY BURNING MUNICIPAL SOLID WASTE.** (a) No person may operate or maintain a collection and transport service for the transportation of residue produced by burning municipal solid waste except in accordance with the applicable provisions of this section, and the following special requirements:

(b) The residue shall contain sufficient moisture during transportation to prevent dust emissions. Alternative methods of dust control shall be approved by the department prior to implementation. Provisions shall be made to prevent the release of residue into air in the residue handling areas.

(c) Prior to transportation of the residue, free liquids shall be drained until no more free liquids remain. All vehicles that transport the residue shall be designed and operated as necessary to prevent leakage during operation.

(d) Access to the residue transport vehicles shall be restricted to authorized personnel only.

(e) All transportation vehicles shall be covered to adequately prevent spillage and wind blown residue during transport.

**(4) GENERAL OPERATIONAL REQUIREMENTS.** No person may operate or maintain a solid waste collection and transportation service except in accordance with the following minimum requirements:

(a) Each vehicle shall have "WDNR" followed by the license number lettered on the driver's door. The letters shall be at least 2 inches high with a minimum 1/2 inch brush stroke. The lettering shall contrast with the background so it is easy to read.

(b) Solid waste shall be transported only to facilities which are licensed or approved by the department, or to facilities which are exempt from regulation by the department.

(c) Vehicles or containers used for the collection and transportation of solid waste shall be durable, easy to clean and leak-proof, if necessary, considering the type of waste and its moisture content. All vehicles and containers shall be cleaned as frequently as necessary to prevent nuisances or insect breeding and shall be maintained in good repair.

(d) Vehicles or containers used for the collection and transportation of solid waste shall be loaded and moved in such a manner that the contents do not fall, spill or leak. Covers shall be provided to prevent littering and spillage. If spillage does occur, the operator shall immediately return spilled materials to the vehicle and shall properly clean the spill area. In the event of a spill of a hazardous substance the department shall be notified under s. 292.11, Stats., and the spill material shall be collected and the environment restored as provided in ch. NR 158.

**Note:** Chapter NR 158 has been repealed.

(e) Services for the collection and transportation of recyclable materials listed in s. 287.07, Stats., and municipal solid wastes shall comply with the prohibitions on land disposal and incineration in s. 287.07, Stats.

(eg) Services for the collection and transportation of municipal solid wastes shall notify their clients of the need to comply with state and local laws requiring recycling. In this paragraph, “client” means the contracting entity or the entity that arranges for service provision in the case where there is no formal contract.

1. Notification for all clients except households in single family and 2 to 4 unit dwellings shall be written, and provided at the time of entering into a contract or otherwise arranging for collection and transportation services and annually thereafter.

2. Notification for all clients in single family and 2 to 4 unit dwellings shall be provided either at the time a client first arranges for collection and transportation services or in writing within 45 days of that time, and by written notice annually thereafter.

3. The service provider shall maintain documentation of this notification for the preceding calendar year.

(er) Unless otherwise specified by contract, a service for the collection and transportation of recycled materials specified in s. NR 544.04 (3) and (4) shall, within 4 weeks of a written request from a responsible unit, provide information regarding the amount of recyclable materials collected under contract with the responsible unit.

(f) Services for the collection and transportation of recyclable materials shall maintain the cleanliness of those materials for recycling purposes.

(g) Upon the request of the department, a service for the collection and transportation of recyclable materials shall provide satisfactory documentation to the department that the recyclable materials have been delivered to brokers, processors or end users of the materials. Records shall be retained for a period of 3 years from the time of delivery.

(h) The owner or operator shall provide written notice of termination of service to the department at least 30 days prior to ceasing all transport services for an extended period. The owner or operator shall provide information to the department concerning service areas and disposal facilities used as specified in the license renewal application.

**(5) RESPONSIBILITY.** A person generating solid waste shall be responsible for the collection and transportation of the waste to a solid waste disposal facility licensed by the department unless the person contracts with a collection and transportation service licensed by the department for that purpose.

**History:** Cr. Register, January, 1988, No. 385, eff. 2–6–88; renum. (1) and (4) to (6) to be (1) (a) and (6) to (8), cr. (1) (b), (4) and (5), Register, May, 1992, No. 437, eff. 6–1–92; am. (2) (a), cr. (2) (am) and (6) (e) to (g), Register, September, 1993, No. 453, eff. 10–1–93, cr. (1) (c), (2) (i), Register, October, 1994, No. 466, eff. 11–1–94; r. and recr. (1) (a), (b), cr. (2) (ar), (j), (4) (h), am. (2) (intro.), (am), (i), r. (3), (4), (7), renum. (5) and (6) to be (3) and (4), (8) to be (5) and am. (3) (a), Register, June, 1996, No. 486, eff. 7–1–96; am. (2) (b), Register, August, 1997, No. 500, eff. 9–1–97; cr. (2) (k), Register, December, 1997, No. 504, eff. 1–1–98; CR 04–113; am. (2) (ar) and (4) (e), cr. (4) (eg) and (er) Register June 2005 No. 594, eff. 7–1–05.

**NR 502.07 Transfer facilities. (1) GENERAL.** (a) Unless exempt under sub. (2m), owners and operators of solid waste transfer facilities shall comply with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(b) Unless exempt under sub. (2), (2f) or (2m), owners and operators of new or expanded solid waste transfer facilities shall comply with initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with the locational criteria listed under sub. (3).

(c) Unless exempt under sub. (2), (2f), (2m) or (2r), no person may operate or maintain a solid waste transfer facility unless the person has received approval of a plan of operation as specified in sub. (4).

(cm) Unless exempt under sub. (2), (2f) or (2m), no person may operate or maintain a solid waste transfer facility unless the person has obtained an operating license from the department.

(d) No person may operate or maintain a transfer facility for infectious waste or items mixed with infectious waste unless the person complies with s. NR 526.09.

**(2) EXEMPTIONS.** Transfer facilities at which waste from individual users or from hand unloaded vehicles not exceeding one ton in capacity shall comply with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b), but are exempt from all other requirements of this chapter, provided the facility is operated and maintained in conformance with the following practices:

(a) Containers shall be leak–proof and manufactured of non-degradable material such as metal, plastic or concrete.

(b) Where mechanical equipment is a part of the operation, access shall be limited to those times that an attendant is on duty. Access restrictions and an attendant may be required by the department for a nonmechanical facility.

(c) Containers shall be removed or emptied at least once per week and more frequently if conditions warrant.

(d) The transfer station and adjacent area shall be kept clean and free of litter.

(e) Burning of solid waste may not be conducted.

(f) Effective means shall be provided to control flies, rodents and other insects or vermin.

(g) An all–weather access road and parking area shall be provided and maintained.

(h) If recycling facilities are provided, they shall be clearly labeled and maintained in a nuisance–free manner.

**(2f) EXEMPT RECYCLING TRANSFER FACILITIES.** Facilities only for the transfer of items listed in s. 287.07 (3) or (4), Stats., except waste tires listed in s. 287.07 (3), Stats., shall comply with the operational requirements in sub. (7) (a), (c), (d), (i), (k) and (o), and the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b), and, for new or expanded facilities opening after July 1, 2005, the locational criteria in sub. (3), but are exempt from all other requirements of this chapter.

**(2m) EXEMPT USED OIL FACILITIES.** Transfer facilities for only used oil which is managed in compliance with ch. NR 679 ARE EXEMPT FROM ALL REQUIREMENTS OF THIS CHAPTER.

**(2r) EXEMPT TRANSFER FACILITIES ACCEPTING LESS THAN 50 TONS PER DAY.** Transfer facilities that meet all of the following criteria are exempt from all other requirements of this chapter:

(a) Comply with performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(b) New or expanded facilities shall comply with initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with locational criteria in sub. (3).

(c) Obtain an operating license from the department.

(d) Accept a maximum of 50 tons of waste per day and store a maximum of 50 tons of waste at any one time.

(e) Comply with operational requirements for transfer facilities in sub. (7) and all of the following:

1. Limit storage periods to a maximum of 24 hours, except within leak–proof vehicles or containers with impermeable tops used by a licensed collection and transportation service.

2. Do not accept sewage solids, sludge, asbestos or wastes containing free liquids.

3. At the end of each operating day, place all waste in leak-proof vehicles or containers with impermeable tops.

(f) Prior to or with the initial license application, and with each subsequent license application, submit a cover letter containing the following certification:

I, \_\_\_\_\_ (authorized individual name), \_\_\_\_\_ (position title), hereby certify that I am the owner or authorized representative of the solid waste transfer facility, \_\_\_\_\_ (facility name), located at \_\_\_\_\_ (location address); that I am aware of s. NR 502.07, Wis. Adm. Code applicable to the facility; and that the facility is in compliance with the code.

\_\_\_\_\_  
(signature of authorized individual)      \_\_\_\_\_  
(signature date)

(g) If the certification required in par. (f) is not submitted with a license renewal application prior to expiration of any license period, the facility shall pay compliance inspections fees in accordance with s. NR 520.04 (7) for up to 2 inspections completed by the department during the subsequent license period.

**(3) LOCAL CRITERIA.** (a) Except as otherwise specified in this section, new or expanded solid waste transfer facilities may not be located in any of the following areas, unless an exemption is granted under par. (b):

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
3. Within 250 feet of any navigable lake, pond or flowage.
4. Within 250 feet of any navigable river or stream.
5. Within 100 feet of land owned by a person other than the owner or operator of the facility, unless the waste handling operations are screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.
6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.
7. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.

(b) The locational criteria listed under par. (a) 2. to 7., do not apply to waste transfer activities located within an enclosed building. However, the department may require enclosed solid waste transfer facilities to meet specified locational criteria in par. (a) if there is significant potential for the facility to cause environmental pollution as defined in s. 283.01 (6m), Stats., nuisance conditions or bird hazard to aircraft. The department may grant exemptions from the requirements of par. (a) 2. to 7., only upon demonstration by the applicant of circumstances which warrant the exemption. Exemptions from compliance with par. (a) 1. may not be granted.

**(4) PLAN OF OPERATION.** Unless exempt under sub. (2), (2f), (2m) or (2r), no person may establish or construct a transfer facility prior to obtaining approval in writing from the department of a plan of operation for the facility. The plan of operation shall specify the intent and objectives of the proposal, indicate methods and procedures to minimize adverse environmental impacts and provide a design which complies with the operational requirements in sub. (7). Unless an exemption is granted by the department in writing, the plan shall be submitted in accordance with s.

NR 500.05 and shall contain engineering plans specified under sub. (5) and a report containing, at a minimum the following information:

- (a) A legal description of the property and the facility boundaries.
- (b) The present ownership of the proposed facility property.
- (c) Land use within 1/4 mile of the proposed facility.
- (d) The operator of the facility.
- (e) The size of the facility.
- (f) A USGS 7<sup>1</sup>/<sub>2</sub> minute or 15 minute quadrangle map of the facility property.
- (g) The proposed methods of screening waste handling operations from the surrounding area.
- (h) A discussion of the consistency of facility development with areawide solid waste management plans, land use plans or other areawide plans. Alternatives considered in the project planning phase shall be discussed.
- (i) The population and area to be served by the facility and projections for changes in use in the future.
- (j) The type and quantity of waste to be handled, and specific waste types which will not be accepted at the facility. The method for screening the incoming waste to eliminate unacceptable material such as asbestos, infectious waste, explosive wastes, hazardous waste or other materials from endangering the operators' safety shall be identified.
- (k) The persons responsible for structural improvements, building maintenance and daily operation and control of the facility.
- (L) The types of vehicles used to transport solid waste into and out of the facility.
- (m) The vehicle traffic routing at the facility and provisions for access to connecting roadways.
- (n) The source of the facility's water supply and the method of wastewater treatment.
- (o) The methods of volume reduction to be used such as compacting, grinding, compression or tamping.
- (p) The design criteria used to select equipment capacity and building configuration and sizing.
- (q) Daily clean-up procedures.
- (r) The names and locations of all solid waste disposal facilities to which waste from the transfer station may be hauled.
- (s) The procedures for alternate routing of waste during inoperable periods at the facility.
- (t) The procedures to handle heavy or bulky items and locations for storage of solid waste beyond the end of the working day.
- (u) The equipment and procedures designed to control dust, odors, noise, fire and windblown paper.
- (v) The proposed life expectancy of the facility.
- (w) A detailed discussion of the safety equipment and procedures to be used at the facility.

**(5) ENGINEERING PLANS.** The plan of operation shall include a set of engineering plans and maps which contain the following information unless an exemption is granted in writing by the department:

- (a) An existing conditions map, which shows the entire facility and the area within 1/2 mile. The minimum scale shall be 1" = 400'. This map shall include the facility boundary, property lines, easements and right-of-way; building foundations, roads, utilities and other structures; existing topography, drainage swales, surface waters, wetlands, floodplains and similar drainage features; wooded areas; location of soil borings and test pits; features of historical and archaeological significance; and other features as appropriate.
- (b) A facility plan which shall include the proposed facility access roads and traffic patterns, buildings, scales, utility lines, drainage diversion, screening, means of access control, final



topography, areas to be cleared of vegetation and other design features. The extent of coverage and scale shall be the same as that for the existing conditions map.

(c) A proposed process layout plan which shows the receiving, storage and loadout areas. The minimum scale shall be 1" = 20'. The plans shall include design details for the receiving area configuration and traffic flow patterns, storage area and equipment configuration, loadout area and equipment configuration, and other design features.

**(6) CONSTRUCTION DOCUMENTATION REPORT.** The department may require the applicant to submit a construction documentation report for any transfer facility required to submit a plan of operation. When a documentation report is required, it shall be prepared in accordance with the approved plan of operation and s. NR 500.05. Operation of the facility may not begin until the construction documentation report is approved in writing by the department and a license is issued. The department may issue a license prior to facility construction or construction documentation.

**(7) OPERATIONAL REQUIREMENTS FOR TRANSFER FACILITIES.** Unless exempt under sub. (2), (2f), (2m) or (2r) no person may operate or maintain a transfer facility except in conformance with an approved plan of operation, if applicable under sub. (4), and the following operational requirements:

(a) A sign shall be prominently posted at the entrance to the facility, which indicates the name, license number, the hours of operation, waste types accepted, necessary safety precautions and any other pertinent information specified by the department.

(b) A building, roofed and enclosed on at least 3 sides or otherwise enclosed to satisfactorily control dust, papers, and other waste materials, shall be provided.

(c) All wastewater shall be collected and treated at a wastewater treatment facility permitted to accept it.

(d) The facility shall be operated under the direct supervision of responsible individuals who are thoroughly familiar with the requirements and the operational procedures of the transfer facility.

(e) Access shall be restricted except when an attendant is on duty.

(f) There may be no storage of solid waste on the premises for a period greater than 24 hours except in conformance with s. NR 502.05 or unless the waste is contained in leak-proof vehicles or containers with impermeable tops used by a licensed collection and transportation service. Longer storage periods may be authorized by the department for certain industrial and commercial waste depending on the design of the facility

(g) Unloading of solid waste may take place only within the enclosed structure and only in approved designated areas.

(h) Solid waste shall be confined to the unloading, loading and handling area.

(i) The transfer facility and adjacent area shall be kept clean and free of litter.

(j) Sewage solids, sludge, asbestos or wastes containing free liquids may not be accepted unless special handling plans for these wastes have been submitted to the department and approved in writing. Infectious or hazardous waste may not be accepted under any circumstances.

(k) Dust and odor generated by the unloading of solid waste and the operation of the transfer facility shall be controlled at all times.

(L) Burning of solid waste may not be conducted.

(m) Solid waste which is burning or is at a temperature likely to cause fire or is flammable or explosive may not be accepted.

(n) Equipment shall be provided to control accidental fires and arrangements shall be made with the local fire protection agency to provide immediate services when needed.

(o) Means shall be provided to control flies, rodents and other insects or vermin.

(p) Provisions shall be made for adequate maintenance of the transfer facility after each day of operation.

(q) Means of communication shall be provided for emergency purposes.

(r) An approved alternative method of waste processing or disposal shall be provided in the event that the transfer facility is rendered inoperable.

(s) Recyclable material may be separated from the incoming waste and stored provided that no fire hazard or nuisance conditions are created.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. (1), (3) (j), Register, October, 1994, No. 466, eff. 11-1-94; am. (1), cr. (2m), Register, May, 1995, No. 473, eff. 6-1-95; r. and recr. (1), am. (2) (intro.), (2m), (7), (intro.), (c), (f), (g), cr. (2f), (3), r. (6), (8), renum. (3), (4) and (5) to be (4), (5) and (6) and am. (4) (intro.), (j), (6), Register, June, 1996, No. 486, eff. 7-1-96; am. (7) (j), Register, September, 1998, No. 513, eff. 10-1-98; CR 04-113; am. (2f) Register June 2005 No. 594, eff. 7-1-05; CR 05-020; am. (1) (a) to (c), (2m), (3) (a) 6., (4) (intro.) and (7) (intro.), cr. (1) (cm) and (2r) Register January 2006 No. 601, eff. 2-1-06; correction in (2m) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661; correction in (2f) made under s. 13.92 (4) (b) 7., Stats., Register April 2013 No. 688.

### NR 502.08 Solid waste processing facilities.

**(1) GENERAL.** (a) Unless exempt under sub. (2), no person may operate or maintain a solid waste processing facility unless the person complies with the general requirements in s. NR 502.04, and has obtained a plan of operation approval as specified in sub. (4) and an operating license from the department.

(b) Unless exempt under sub. (2), owners and operators of new or expanded solid waste processing facilities shall demonstrate compliance with the applicable locational criteria in sub. (3).

**Note:** Persons treating infectious waste are required to submit a plan of operation and obtain a license for operating a solid waste processing facility under this section and shall comply with s. NR 526.12.

**(2) EXEMPTIONS.** The following facilities are exempt from all requirements of this chapter, except as specified:

(a) Incinerators, air curtain destructors, woodburning facilities, composting facilities and municipal solid waste combustors regulated under ss. NR 502.09 to 502.13.

(b) Materials recovery facilities as defined in s. NR 500.03 (140). A materials recovery facility which serves one or more responsible units shall either hold a valid self-certification or be exempted from self-certification, as specified in s. NR 544.16 (2).

(c) Facilities that process only used oil which is managed in compliance with ch. NR 679.

(d) Facilities for processing contaminated soil in accordance with ch. NR 718.

(e) Infectious waste treatment facilities which are exempt from licensing under s. NR 526.12 (2).

(f) Facilities for the processing of scrap iron, steel or nonferrous metal using large machines to produce a principal product of scrap metal for sale or use for remelting purposes.

(fg) Facilities that use large machines to sort, grade, compact, bale or process clean, separate waste components consisting of waste paper, textiles, clean wood, glass, pavement or plastics, not mixed with each other or other solid waste, for sale or distribution for reuse or recycling.

(fr) Facilities that use large machines to sort, grade, compact, bale, or mechanically process clean, separate waste construction and demolition materials not mixed with other solid waste, for sale or distribution for reuse or recycling, provided the facility complies with the operational requirements specified in s. NR 502.07 (7) (a), (c), (d), (k), (L) and (o), the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b), and, for new or expanded facilities opening after July 1, 2005, the locational criteria in s. NR 502.07 (3).

(g) Private alcohol fuel production systems provided the waste product is stored in an environmentally sound storage facility and

disposed of using an environmentally safe landspreading technique and the disposal is confined to the property of the owner.

(h) Facilities where solid wastes are generated as part of a manufacturing or industrial process and the solid wastes are processed within a building on the same property where the waste is generated, provided the solid waste generator complies with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(i) Except for those facilities which are otherwise exempt under this subsection, facilities where solid wastes are processed for reuse or recycling by being incorporated into a structural material such as concrete or asphalt or converted into a consumer product, or used as a raw material in a commercial or industrial process are exempt from licensing and all other requirements of this chapter, provided the solid waste generator or processor obtains written approval from the department to use the waste for these purposes in accordance with the following:

1. Comply with the performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b), and operate the facility in a nuisance-free and aesthetic manner.

2. Submit a process flow diagram and the necessary laboratory and field tests to show that the specific waste types to be used would not release quantities of contaminants into the environment such that a potential hazard to public health or the environment would be created.

**(3) LOCATIONAL CRITERIA FOR NONEXEMPT PROCESSING.** (a) Unless exempt under sub. (2), new or expanded processing facilities may not be located within any of the following areas, unless an exemption is granted under par. (b):

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
3. Within 250 feet of any navigable lake, pond or flowage.
4. Within 250 feet of any navigable river or stream.
5. Within 250 feet of land owned by a person other than the owner or operator of the facility, unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.
6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.
7. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.

(b) Processing facilities located within a building are not subject to par. (a) 2. to 7. However, the department may require contained and enclosed solid waste processing facilities to meet specified locational criteria in par. (a) if there is significant potential for the facility to cause environmental pollution as defined in s. 283.01 (6m), Stats., nuisance conditions or bird hazard to aircraft. The department may grant exemptions from par. (a) 2. to 7., only upon demonstration by the applicant of circumstances which warrant the exemption. Exemption from compliance with par. (a) 1. may not be granted.

**(4) PLAN OF OPERATION – NONEXEMPT PROCESSING FACILITIES.** Unless exempt under sub. (2), no person may establish or construct a solid waste processing facility prior to obtaining approval in writing from the department of a plan of operation for the facility. Unless otherwise approved by the department in writing, the plan shall be submitted in accordance with s. NR 500.05, shall contain engineering plans specified under sub. (5), shall provide

a design which complies with the operational requirements in sub. (6) and shall include a report containing, at a minimum, the following information:

(a) A legal description of the property and the facility boundaries.

(b) The present ownership of the proposed facility property.

(c) Land use within 1/4 mile of the proposed facility. Particular note shall be made of parks, hospitals, nursing homes and areas of archaeological and historical significance.

(d) The proposed service area, including population and major industries.

(e) The consistency of facility development with county solid waste plans and land use plans.

(f) The predominant types of vegetation and wildlife within the proposed facility boundaries.

(g) The persons responsible for facility construction and operation.

(h) A timetable for facility construction, shakedown and operation, and an operating schedule for the facility. All facilities operated more than 4 hours per day shall be equipped with a toilet and wash basin or have those facilities available within a reasonable distance.

(i) A complete materials balance for the facility, specifying amounts and characteristics of solid waste received and amounts and characteristics of products and wastes generated by the facility.

(j) The estimated quantities and characteristics of wastes containing free liquids resulting from facility operation and methods of their treatment or disposal. All wastewater resulting from the process shall be discharged into a sanitary sewer or other system approved by the department.

(k) The names and locations of all solid waste disposal facilities at which solid waste from the processing plant will be disposed, and potential contractual arrangements and distribution plans for recovered solid wastes or products produced.

(L) A proposed design providing enclosure for all installed processing equipment. Explosion-prone equipment such as primary shredders shall be placed in a separate room with explosion venting or explosion suppression equipment.

(m) A proposed design providing for shrouding and dust collection and removal equipment for the receiving area and all dry processing units such as shredders, screens, air classification devices, magnetic separators and similar equipment and all conveyor transfer points where dust is generated. Any air collected in this manner shall be directed through appropriate air pollution control equipment before being discharged.

(n) A discussion of any additional procedures for the control of dust, odors, fire, windblown materials and potential explosions and for the handling of the waste in the case of major processing facility breakdown. Dust within a facility shall be controlled so that operators are not exposed to undue health risk.

(o) A proposed design providing for all buildings enclosing processing equipment to have a sloped concrete floor with floor drains connected to a sanitary sewer or other system approved by the department.

(p) A proposed design providing for all processing, receiving or storage areas not enclosed by a building to be graded at a minimum 1% slope and surfaced with a material which will adequately support heavy equipment, resist frost action, provide a wearing surface and prevent contamination of groundwater. Runoff from these areas shall be directed to a sanitary sewer or other system approved by the department.

(q) A discussion of the quality and quantity of air discharge from plant operations and the need for any permits. For thermal processing facilities, the report shall include a proposed design to provide adequate temperature and residence time in the reaction chambers to assure complete processing and necessary air pollu-

tion control equipment to meet state air pollution control regulations.

(r) A discussion of the types of vehicles and access routes used to transport solid waste to and from the facility, including the estimated increase in traffic, and traffic flow patterns within the facility.

(s) A proposed design providing for access roads of all-weather construction and a maximum 10% grade. The intersection of the access road with an existing highway shall be designed to provide sufficient sight distance and provide for minimum interference with traffic on existing highways.

(t) A proposed design limiting access to the processing facility by means of fencing, natural barriers or other methods.

(u) Information to document that the size and configuration of the facility grounds, building and equipment, including the facility layout, drainage structures, building design, and major facility equipment, as specified to be shown in the engineering plans, are adequate for management of the proposed waste quantities and processes.

(v) Provisions for protection of groundwater and surface water during facility construction and operation.

(w) A discussion of possible operational hazards and necessary safety precautions.

(x) Procedures for facility closure.

**Note:** These facilities may be subject to other regulations including OSHA requirements.

**(5) ENGINEERING PLANS.** The plan of operation shall include a set of engineering plans and maps which contain the following information unless an exemption is granted by the department in writing:

(a) An existing conditions map, which shows the entire facility and the area within 1/4 mile. The minimum scale shall be 1" = 400'. This map shall include the proposed facility boundary, property lines, easements and rights-of-way, buildings foundations, roads, utilities and other structures; topography, drainage swales, surface waters, wetlands, floodplains and similar drainage features; wooded areas; location of soil borings and test pits; features of historical and archaeological significance; and other features as appropriate.

(b) A facility plan which includes the proposed facility access roads and traffic patterns, buildings, scales, utility lines, drainage diversion, screening, means of access control, final topography, areas to be cleared of vegetation, and other design features. The extent of coverage and scale shall be the same as that for the existing conditions map.

(c) A proposed layout of each facility building including receiving, processing, and loadout areas. The minimum scale shall be 1" = 20'. The building layout shall also show the location of all major facility equipment, including material handling equipment, air handling and air pollution control equipment, floor drains and process sewers, and other pertinent design features.

(d) At least one cross section drawn through the receiving area, each process line, and the loadout area indicating existing topography, limits of excavation, proposed final grade, and other pertinent design features. More cross sections may be necessary depending on the complexity of the facility design.

**(6) MINIMUM OPERATIONAL REQUIREMENTS.** No person may operate or maintain a solid waste processing facility except in conformance with any approved plan of operation and the following minimum requirements:

(a) A sign, acceptable to the department, shall be posted at the entrance to the facility which indicates the name, license number, the hours of operation, a list of all prohibited wastes, the penalty for unauthorized use, all necessary safety precautions and other pertinent information.

(b) Access to the processing facility shall be limited to those times that an attendant is on duty.

(c) A processing facility shall be operated under the close supervision of responsible individuals who are thoroughly familiar with the requirements and operational procedures of the plant.

(d) Unloading of solid waste shall take place only in approved, designated areas. All solid waste, with the exception of that in the process line, shall be stored in conformance with s. NR 502.05.

(e) The operation shall be conducted in a manner to prevent public health hazards and nuisances, including keeping the processing facility and adjacent area clean and free from litter, and taking effective means to control flies, rodents and other insects or vermin.

(f) Waste containing free liquids, sludges or asbestos waste shall be excluded unless plans specifically addressing the handling of these materials have been submitted to the department and approved in writing. Solid waste which is flammable or explosive may not be accepted. Infectious waste may be accepted only in accordance with s. NR 526.12.

(g) Equipment shall be provided to control accidental fires and arrangements shall be made with the local fire protection agency to provide immediate services when needed.

(h) All operators shall be trained on the sources, quantities and characteristics of the wastes to be processed; process line start up procedures, routine monitoring and cleanup procedures; daily processing and equipment maintenance schedules; methods of controlling access, odors and windblown materials; methods of controlling fires and explosions, use of appropriate safety equipment; persons to contact concerning operational problems and emergencies. An operator training manual containing this and other pertinent operating information shall be prepared and maintained at the facility. Means of communication with emergency facilities shall be provided.

(i) Open burning of solid waste may not be conducted.

(j) Materials resulting from composting or similar processes and offered for sale or public distribution shall be:

1. Stabilized to eliminate pathogenic organisms and to ensure that the materials do not reheat upon standing.

2. Free of sharp particles which could cause injury to persons handling the compost.

3. Free of toxins which could cause detrimental impacts to public health or the environment.

(k) Dust generated by the unloading of solid waste and the operation of the processing facility shall be controlled in accordance with the state air management rules so as not to create nuisance conditions.

(L) If required by the department, permanent records of facility performance shall be maintained and submitted to the department with the relicensing application or as specified in the plan approval. Records shall indicate types, sources and amounts of solid waste processed, minor plant modifications performed, process monitoring data, amounts and characterization testing of process outputs, and other data as required by the department when granting the license.

(m) Arrangements shall be made with an approved solid waste disposal facility for use in the event that the processing facility is rendered inoperable or is not able to completely process the solid waste.

(n) By-products or residues shall be disposed of in facilities approved to receive such waste or shall be handled by an alternative method approved by the department.

(o) All areas disturbed during facility construction or operation shall be graded to a maximum slope of 3 horizontal to 1 vertical, covered with 6 inches of topsoil and seeded or otherwise protected from soil erosion. All borrow areas shall be abandoned in accordance with Wisconsin department of transportation procedures.

**(7) CONSTRUCTION DOCUMENTATION.** The department may require that a registered professional engineer document facility



construction and render an opinion whether the facility has been constructed in substantial conformance with the approved plan. When a documentation report is required, it shall be prepared in accordance with the approved plan of operation and s. NR 500.05. Operation of the facility may not commence until the construction documentation report is approved in writing by the department and a license is issued. The department may issue a license prior to facility construction or construction documentation.

**(8) MONITORING.** Specific monitoring requirements and testing procedures for new, expanded and existing processing facilities will be determined by the department based on a review of the potential for environmental pollution. The department may require the owner or operator of any processing facility or any person who permits the use of property for that purpose to conduct monitoring as follows:

- (a) Air quality monitoring.
- (b) Product testing and waste characterization. The frequency of testing and parameters to be analyzed will be determined based on a review of the proposal and complexity of the product. The quality control program will correlate with the nature of the waste to be processed and final uses proposed for the material.
- (c) Groundwater and surface water monitoring. The frequency and type of monitoring and analysis will be determined based on a review of the project.
- (d) Periodic assessments of plant operation, process feasibility and marketability analyses of processed materials.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; am. (1), cr. (15), Register, May, 1992, No. 437, eff. 6-1-92; am. (1), (2) (f), (9) (l), Register, October, 1994, No. 466, eff. 11-1-94; cr. (2) (g), Register, May, 1995, No. 473, eff. 6-1-95; r. and recr., Register, June, 1996, No. 486, eff. 7-1-96; am. (2) (i) (intro.), Register, September, 1998, No. 513, eff. 10-1-98; CR 04-113; CR 04-113; am. (2) (b) and (f), cr. (2) (fg) and (fr) Register June 2005 No. 594, eff. 7-1-05; CR 05-020; am. (3) (a) 6. Register January 2006 No. 601, eff. 2-1-06; correction in (2) (c) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661.

**NR 502.09 Incinerators. (1) GENERAL.** (a) Unless exempt under sub. (2), no person may operate a solid waste incinerator unless the person complies with the general requirements in s. NR 502.04 and has obtained a plan of operation approval as specified in sub. (4) and an operating license from the department.

(b) Unless exempt under sub. (2), owners and operators of new or expanded solid waste incinerators shall demonstrate compliance with the locational criteria in sub. (3).

**(2) EXEMPTIONS.** (a) Incinerators having a capacity of 500 pounds per hour or less are exempt from all requirements of this section except the disposal requirements in sub. (5) (n) and the ash characterization requirements in sub. (6). The facility shall be designed and operated in conformance with emission limitations of state air pollution control regulations in chs. NR 400 to 499.

(b) Incinerators burning only clean wood waste are exempt from all requirements of this section except the disposal requirements in sub. (5) (n) and the ash characterization requirements in sub. (6).

(c) Municipal solid waste combustors which are regulated under s. NR 502.13 are not subject to regulation under this section.

(d) Incinerators which burn only used oil which is managed in compliance with ch. NR 679 are exempt from all requirements of this section.

**(3) LOCATIONAL CRITERIA.** (a) Except as otherwise specified in this section, new or expanded solid waste incinerator facilities may not be located in any of the following areas, unless an exemption has been granted under par. (b):

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.

(b) The department may require an incinerator facility meet additional locational criteria if there is significant potential for the facility to cause environmental pollution as defined in s. 283.01 (6m), Stats., nuisance conditions or bird hazard to aircraft. The

department may grant exemptions from compliance with par. (a) 2. only upon demonstration by the applicant of circumstances which warrant such exemptions. Exemption from compliance with par. (a) 1. may not be granted.

**(4) PLAN OF OPERATION.** No person may establish or construct an incinerator or expand an existing incinerator prior to obtaining approval in writing from the department of a plan of operation for the facility. The plan of operation for an incinerator shall provide a design which complies with the operational requirements in sub. (5) and contain, at a minimum, the following information:

(a) A map or aerial photograph of the area showing land use and zoning within 1/4 mile of the site. The map or aerial photograph shall be of sufficient scale to show all homes, industrial buildings, roads and other applicable details and the details shall be identified and indicated on the map or aerial photograph.

(b) A plot plan of the incinerator site including means of limiting access such as fencing, gates, natural barriers; methods of acceptably screening the facility from the surrounding area; general layout of equipment and flow pattern; road access; and location of existing and proposed utilities serving the incinerator.

(c) A report which shall include the following information:

1. The legal description of the property where the incinerator will be located.
2. Population, area and facilities to be served by the incinerator.
3. Anticipated type and quantity of waste to be handled by the incinerator.

4. Persons responsible for incinerator operations.
5. Methods of collecting and treating or disposing of any liquid wastes or waste waters resulting from the operation of the incinerator.

(d) A description of all appurtenances and procedures intended to store refuse beyond the end of the working day and to control dust, odors, fire outside the burning chamber and windblown materials.

(e) A description of all methods of volume reduction including compaction, compression, baling, shredding, grinding, tamping, separating or classifying.

(f) A description of daily clean up procedures.

(g) A description of incinerator inspection and maintenance schedule and procedures.

(h) Detailed drawings and specifications of all structures, equipment and site.

(i) A report which includes furnace design criteria and expected performance data, including emission data.

(j) Identification of the site at which the ash residue will be disposed and alternative sites available for use when the primary site is inoperative.

**(5) OPERATIONAL REQUIREMENTS.** No person may operate or maintain an incinerator except in conformance with the following minimum requirements, unless an exemption is granted by the department in writing:

(a) The incinerator shall be equipped, operated and maintained in a nuisance-free manner.

(b) Adequate shelter and sanitary facilities shall be available for personnel.

(c) A sign shall be prominently posted at the entrance to the facility which indicates the name, license number, the hours of operation, necessary safety precautions and any other pertinent information.

(d) All incoming solid waste shall be confined to the designated storage area.

(e) Solid waste shall be stored in conformance with s. NR 502.05.

(f) Dust shall be controlled in the unloading and charging areas.



(g) Permanent records shall be maintained including the weights of material incinerated, the quantity of resulting residue, hours of plant operation, combustion temperatures, residence time and other pertinent information.

(h) Appropriate fire-fighting equipment shall be available in the storage and charging areas and elsewhere as needed.

(i) Arrangements shall be made with the local fire protection agency to provide adequate emergency fire-fighting forces.

(j) Means of communication with emergency facilities shall be provided.

(k) Adequate equipment shall be provided and used to clean the waste storage, waste handling, waste charging, and ash handling areas as may be required in order to maintain the facility in a sanitary condition.

(L) The charging openings as well as all equipment throughout the plant shall be provided with adequate safety equipment.

(m) The incinerator shall be designed and operated such that it will not cause a nuisance because of the emission of noxious odors, gases, contaminants or particulate matter or exceed emission limitations established by state air management rules.

(n) Ash shall be disposed of at a solid waste facility licensed by the department to accept the material or be handled by an alternate method approved in writing by the department. Approval will be issued on a case-by-case basis after review of the information specified in sub. (6).

(o) All wastewater from the incinerator shall be discharged into a sanitary sewer or other system approved in writing by the department.

(p) Upon completion of construction of a new incinerator and at least 10 days prior to initial operation, the department shall be notified to allow inspection of the incinerator both prior to and during any performance tests and initial operation.

(q) Open burning of solid waste may not be conducted.

(r) An approved alternative method shall be used for solid waste disposal during any time that the incinerator is inoperable.

(s) The incoming waste shall be screened to eliminate unacceptable material from entering the facility such as hazardous waste, asbestos, explosive materials or other materials which may endanger operator safety.

**(6) ASH CHARACTERIZATION.** The owner or operator of an incinerator shall undertake a testing program as follows and submit the test results to the department:

(a) An ash testing program shall be completed within 60 days after construction and shake-down of the incinerator. Representative samples of both fly ash and bottom ash shall be tested for physical characteristics, bulk chemical composition, analysis using the appropriate leaching test and analysis using the toxicity characteristic leaching procedure as specified in s. NR 661.24. Sample collection methods, the number of tests, detection limits, and parameters to be tested for will be specified by the department.

(b) A long-term ash testing program shall be established. For the first year of operation, quarterly testing shall be performed using approved methods and procedures. Thereafter, annual sampling and testing shall be performed. At least one sample of bottom ash and one sample of fly ash, if the ashes are not mechanically combined, or one sample of combined bottom and fly ash, if the ashes are mechanically combined, shall be collected for the required testing. The department may specify an alternate testing program.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-6-88; r. and recr. (1), renun. (4) and (5) to be (5) and (6), cr. (2) (c) and (4), Register, May, 1992, No. 437, eff. 6-1-92; cr. (2) (d), Register, May, 1995, No. 473, eff. 6-1-95; r. and recr. (1), (3), (4) (c), am. (2) (a) to (d), (4) (intro.), (d) to (g), (j), (5) (intro.), (a), (k), (n), (q), (6), (intro.), (a), (b), Register, June, 1996, No. 486, eff. 7-1-96; corrections in (2) (d), (6) (a) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661.

**NR 502.10 Air curtain destructors. (1) GENERAL.** (a) No person may operate or maintain an air curtain destructor unless

the person complies with the general requirements specified in s. NR 502.04 and has obtained a plan of operation approval as specified in sub. (3) and an operating license from the department.

(b) Owners and operators of new or expanded air curtain destructors shall demonstrate compliance with the locational criteria listed in sub. (2).

**(2) LOCATIONAL CRITERIA FOR AIR CURTAIN DESTRUCTOR FACILITIES.** (a) Except as otherwise specified in this section, new or expanded air curtain destructor facilities may not be located in any of the following areas, unless an exemption has been granted under par. (b):

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
3. Within 250 feet of any navigable lake, pond or flowage.
4. Within 250 feet of any navigable river or stream.
5. Within 100 feet of land owned by a person other than the owner or operator of the facility, unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.
6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.

(b) The standards listed under par. (a) 2. to 6. do not apply to above ground self contained air curtain destructors. The department may grant exemptions from the requirements of par. (a) 2. to 6. only upon demonstration by the applicant of circumstances which warrant the exemptions. Exemption from compliance with par. (a) 1. may not be granted.

**(3) PLAN OF OPERATION.** No person may establish or construct an air curtain destructor or expand an existing air curtain destructor prior to obtaining approval in writing from the department of a plan of operation for the facility. The plan of operation shall include a design which complies with the design and operational requirements in sub. (4) and contains at a minimum the following:

- (a) Name, address and telephone number of the facility operator.
- (b) A description of the types, quantity and sources of material proposed to be burned, and anticipated frequency of burning.
- (c) Written consent to operate the facility from all adult residents and business owners within 1/4 mile of the burning pad, except that consent is not required from any person who was not an adult resident or proprietor at the time the facility was initially licensed by the department, unless that person is a successor in interest to a person who was an adult resident or proprietor at the time. If a resident or proprietor who previously consented to operation of the facility withdraws the consent in writing, the withdrawal is not effective until the end of the current license period for the facility.

**(4) DESIGN AND OPERATIONAL REQUIREMENTS.** No person may construct, operate or maintain an air curtain destructor except in conformance with all local burning regulations and permits, state air management rules, with any approved plan of operation and the following minimum requirements:

(a) The burning pit shall be constructed of a material which will result in a pit of permanent dimensions. Unconsolidated soils are not an acceptable material for construction of the burning pit. Maintenance shall be performed on the pit to keep its dimensions constant to keep the air curtain destructor operating properly.

(b) The burning pit floor shall be constructed in a manner which provides for proper drainage.

(c) The burning pit shall be oriented perpendicular to the prevailing wind with the plenum chamber and blower on the downwind side.

(d) The charging area shall be paved with the concrete pad for a distance of at least 10 feet from the edge of the burning pit and sloped away from the chamber. Adequate safety devices shall be provided to prevent loading equipment from falling into the burning pit.

(e) Only clean wood and brush may be burned in an air curtain destructor. Brush shall be burned only in conformance with s. 287.07, Stats.

(f) The stockpile of waste material shall be kept a minimum of 100 feet from the burner. The total amount of stockpiled waste shall be limited to the amount that can be burned in 5 days.

(g) Charging shall be done to prevent damage to the pit wall and floor.

(h) Waste shall be placed so that it does not extend above the burning pit or interfere with air circulation.

(i) Start-up shall be accomplished by using wood kindling material to ignite larger materials. Where sufficient quantities of wood kindling materials are unobtainable, other methods approved by the department in writing may be used.

(j) Burning may be conducted only during daylight hours. Quantities of materials to be burned shall be restricted to allow for complete burnout while the facility is attended.

(k) Fire-fighting equipment shall be kept at the facility in case of emergency. Arrangements shall also be made with the local government to provide fire protection. Fire breaks shall be provided for a distance of at least 100 feet from the air curtain destructor. Greater setbacks may be specified by the department.

(L) The burning pit shall be cleaned out on a regular schedule. Ashes may not be allowed to accumulate to a depth of greater than 3 feet. The department may specify a lesser depth.

(m) The air curtain destructor shall be surrounded by a fence with a lockable gate. The gate shall be kept locked when no attendant is on duty.

(n) An attendant shall be on duty at all times when the blower unit is in operation. All fires shall be extinguished when the blower unit is shut off.

(o) Warning signs shall be posted at intervals around the entire air curtain destructor installation notifying people to keep out of the area.

(p) A sign acceptable to the department shall be posted at the entrance to the operation which indicates the name, acceptable wastes, license number, the hours of operation, penalty for non-authorized use, necessary safety precautions and any other pertinent information.

(q) Surface water shall be diverted away from the active operating area, storage area and access areas.

(r) Ash resulting from the operation shall be disposed of at a facility approved by the department to receive such material.

(s) The facility shall be operated in a nuisance-free manner consistent with this chapter and in accordance with the state air management rules in chs. NR 400 to 499.

**Note:** Air curtain destructor facilities must obtain a burning permit during certain times of the year under s. 26.12, Stats., or may be required to obtain a burning permit from the township in which the burning will occur.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-1-88; r. and recr. (1), (2), (3), am. (4) (intro.), (a), (e), (f), (h), (i), r. (4) (m), (n), (5), r. (4) (m), (n), (5), rn. (4) (o) to (u) to be (4) (m) to (s) and am. (4) (n), (p), (s), Register, June, 1996, No. 486, eff. 7-1-96; CR 05-020; am. (2) (a) 6., Register January 2006 No. 601, eff. 2-1-06.

**NR 502.11 Woodburning facilities and open burning.** (1) **GENERAL.** (a) Unless exempt under sub. (2), owners and operators of woodburning facilities shall comply with the general requirements in s. NR 502.04, comply with the design and operational requirements in sub. (5), and obtain a plan of operation approval as specified in sub. (4) and an operating license from the department.

(b) Unless exempt under sub. (2), owners and operators of new or expanded woodburning facilities shall demonstrate compliance with the locational criteria in sub. (3).

(2) **EXEMPTIONS.** The following woodburning facilities are exempt from licensing and all requirements of this section, although a burning permit from the department may still be required during certain times of the year in counties within a forest fire control area. These exempt facilities may not burn wet combustible rubbish, garbage, oily substances, asphalt, plastic or rubber products, unless these substances are exempt under s. NR 429.04.

(a) Burning of trees, limbs, stumps, brush or weeds, except for yard waste, as a result of agricultural or silvicultural activities, if the burning is conducted on the property where the waste is generated.

(b) Burning of trees, limbs, stumps, brush or weeds, except for yard waste, as a result of clearing or maintenance of highway, railroad or utility rights-of-way and other land clearing operations, if the burning is conducted on the property where the waste is generated.

(c) Burning existing structures for practice and instruction of fire fighters or testing of fire fighting equipment. If the burning includes a building, a demolition notification shall be submitted to the air management program of the department. Asphalt shingles and asphalt and plastic siding shall be removed from structures unless they are considered necessary to the fire practice. All material containing asbestos shall be removed in compliance with ch. NR 447. Ash from the burned structure shall be disposed of, when cool, in a landfill approved by the department. The department may approve alternate ash disposal sites if groundwater and surface water quality will not be affected.

(d) Burning of yard waste and small quantities of dry combustible household rubbish, including paper, cardboard and clean untreated wood from a single family or household, on property where it is generated, unless prohibited by local ordinance.

(e) In emergency situations such as natural disasters, brush and other yard waste can be disposed in a landfill or burned without energy recovery, with approval from the department.

(f) One time burning of dry, unpainted and untreated wood, stumps, trees and brush in conformance with s. 287.07, Stats. Department staff shall be notified prior to the burn to obtain concurrence that the burn is in accordance with this provision and that the amount of this wood to be burned on a one time basis and the rate of burning comply with state air management rules in chs. NR 400 to 499.

**Note:** Woodburning facility license requirements do not apply to backfires set by fire control personnel to aid in controlling forest fires or fires set for forest, wildlife habitat or grassland management purposes.

(3) **LOCATIONAL CRITERIA.** (a) Except as otherwise specified in this chapter, new or expanded woodburning facilities may not be located in any of the following areas, unless an exemption is granted under par. (b):

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
3. Within 250 feet of any navigable lake, pond or flowage.
4. Within 250 feet of any navigable river or stream.
5. Within 100 feet of land owned by a person other than the owner or operator of the facility, unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the property boundary.
6. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.
7. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial hazard to aircraft would be created.

8. Within 1/4 mile of any residence unless a written consent is obtained from all adult residents within 1/4 mile of the burning pad.

9. Within the limits of fill of an existing or abandoned landfill.

(b) The department may grant exemptions to par. (a) 2. to 7. only upon demonstration by the applicant of circumstances which warrant the exemptions. Exemptions from compliance with par. (a) 1., 8. and 9., may not be granted.

**(4) PLAN OF OPERATION.** No person may establish or construct a woodburning facility or expand an existing woodburning facility prior to obtaining approval in writing from the department of a plan of operation for the facility. Unless otherwise approved by the department in writing, the plan of operation shall include a design which complies with the design and operational requirements in sub. (5) and contains at a minimum the following:

(a) Name, address and telephone number of facility operator.

(b) A description of the types, quantity and sources of material proposed to be burned, and anticipated frequency of burning.

(c) Written consent from all adult residents and business owners within 1/4 mile of the burning pad, except that consent is not required from any person who was not an adult resident or proprietor at the time the facility was initially licensed by the department, unless that person is a successor in interest to a person who was an adult resident or proprietor at the time. If a resident or proprietor who previously consented to operation of the facility withdraws the consent in writing, the withdrawal is not effective until the end of the current license period for the facility.

**(5) DESIGN AND OPERATIONAL REQUIREMENTS.** No person may construct, operate or maintain a woodburning facility except in conformance with all local burning regulations and permits, state air management rules in chs. NR 400 to 499, any approved plan of operation and the following minimum requirements:

(a) All burning shall be done on a burning pad or pit constructed of concrete, compacted gravel, compacted mineral soil or other materials approved in writing by the department. A fire-break of mineral soil scraped free of vegetation for a minimum distance of 100 feet around the burning pad or pit shall be constructed. Greater setback distances may be required by the department.

(b) Only dry, unpainted and untreated wood, stumps or trees may be burned at a woodburning facility. Brush shall be burned only in conformance with s. 287.07, Stats.

(c) Waste material may be placed or stored on the burning pad, but may not exceed the amount of wood that can be burned in one day in conformance with ch. NR 445. Any additional accumulation of waste material shall be stockpiled a minimum of 100 feet from the burning pad. The total amount of stockpiled waste shall be limited to the amount that can be burned in 5 calendar days.

(d) Start-up shall be accomplished by using wood kindling material to ignite larger materials. Where sufficient quantities of wood kindling materials are unobtainable, other methods approved by the department in writing may be used.

(e) Burning shall be conducted only during daylight hours.

(f) Fire-fighting equipment shall be kept at the facility in case of emergency, unless the services of a local fire protection agency are arranged.

(g) The burning pad shall be surrounded by a fence with a lockable gate. The gate shall be kept locked when no attendant is on duty.

(h) An attendant shall be on duty at all times when burning is taking place. All fires shall be extinguished before the attendant leaves the facility. The fire shall be actively tended and maintained to promote complete combustion, ensure good fuel-flame contact and burndown.

(j) A sign acceptable to the department shall be posted at the entrance to the operation which indicates the facility name,

acceptable wastes, license number, the hours of operation, penalty for unauthorized use, necessary safety precautions and any other pertinent information.

(k) Storm water shall be diverted away from the burning pad, storage area and access areas.

(L) Ash resulting from the operation shall be disposed of at a facility approved by the department to receive that material.

(m) The facility shall be operated in a nuisance-free manner.

**Note:** Woodburning facilities must obtain a burning permit during certain times of the year under s. 26.12, Stats., or may be required to obtain a burning permit from the township in which the burning will occur.

**History:** Cr. Register, January, 1988, No. 385, eff. 2-1-88; r. and recr., Register, June, 1996, No. 486, eff. 7-1-96; CR 05-020: am. (3) (a) 6. Register January 2006 No. 601, eff. 2-1-06.

### NR 502.12 Yard, farm, food residuals and source-separated compostable material composting facilities.

**(1) GENERAL.** No person may operate or maintain a composting facility for yard residuals, farm crop residue, farm animal manure, animal carcasses, food residuals including vegetable food residuals, or source-separated compostable material except in accordance with the requirements of this section or s. NR 243.15 (8).

**Note:** Pursuant to s. NR 243.15(8), the Department may choose to regulate composting facilities associated with livestock operations that are subject to the requirements of ch. NR 243 under that operation's Wisconsin Pollution Discharge Elimination System permit instead of under s. NR 502.12. Facilities for composting waste types other than yard residuals, farm crop residue, farm animal manure, animal carcasses, food residuals or source-separated compostable materials are regulated under s. NR 502.08. Local ordinances may apply to facilities regulated under this section.

**(2) HOUSEHOLD EXEMPTION.** Facilities for composting only source-separated compostable material from a single family or household, a member of which is the owner, occupant or lessee of the property where the facility is located, are exempt from all requirements of this chapter, provided the facility is operated in a nuisance-free and environmentally sound manner.

**(3) LIMITED EXEMPTION FOR SOURCE-SEPARATED COMPOSTABLE MATERIAL COMPOSTING FACILITIES WITH CAPACITY OF 50 CUBIC YARDS OR LESS.** Facilities for composting source-separated compostable materials that do not exceed 50 cubic yards at one time, including collected raw materials and compost being processed but excluding finished compost, are exempt from the requirements specified in s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this chapter provided the following are met:

(a) The performance standards specified in s. NR 502.04 (1) and the minimum operational standards specified in sub. (10).

(b) The facility is operated in a nuisance-free and environmentally sound manner.

**(4) LIMITED EXEMPTION FOR FARM CROP RESIDUE OR MANURE COMPOSTING FACILITIES.** Facilities for on site composting of farm crop residue or manure, except deer or elk manure, directly from agricultural operations are exempt from the requirements of s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this chapter, provided all of the following requirements are met:

(a) The performance standards in s. NR 502.04 (1).

(b) The facility is operated in a nuisance-free and environmentally sound manner.

(c) All the farm crop residue and manure composted are generated from agricultural operations either under common ownership, common management or located adjacent to each other, and the composting occurs on the property of one of these agricultural operations.

(d) The compost is utilized for agricultural landspreading, at the same farm or at another farm, in accordance with s. NR 518.04 (1) (b) or (i).

(e) Source-separated compostable material other than farm crop residue and manure may be accepted from off site for use in the composting process if the following requirements are met:



1. The locational criteria in sub. (8), unless the offsite material consists exclusively of yard material, clean chipped wood, or both.

2. The minimum operational and design standards in subs. (10) and (11).

3. The recordkeeping requirements of sub. (15) (a) 3. and the discharge inspection requirements in sub. (15) (a) 4.

4. The combined volume of farm crop residue, farm animal manure, and source-separated compostable material on site at one time may not exceed 10,000 cubic yards, including collected raw materials and compost being processed but excluding finished compost. The volume of food residual inputs to the composting process may not exceed 25 percent of the total combined volume of raw material inputs. Inputs shall be mixed to achieve an initial carbon to nitrogen ratio of at least 20 to 1.

**Note:** Composting facilities that accept manure or are located at a livestock operation may be subject to additional state requirements in chs. NR 151 and 243 and in ch. ATCP 51, as well as local regulations for manure storage and shoreland and floodplain zoning. Public distribution of the compost may be regulated by the department of agriculture, trade and consumer protection (DATCP). Other local ordinances may apply to facilities regulated under this section. The following landspreading operations are exempt under s. NR 518.04 (1) (b), (h) and (i), respectively, provided the material is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices and the facility is operated and maintained in a safe, nuisance-free manner:

- Farms on which only nonhazardous agricultural residuals resulting from the operation of a farm, including farm animal manure, are landspread.
- Landspreading of uncomposted yard residuals.
- Landspreading of composted source-separated compostable material.

**(5) LIMITED EXEMPTION FOR ON SITE FARM ANIMAL CARCASS COMPOSTING FACILITIES.** Facilities for on site farm composting of animal carcasses other than deer or elk are exempt from the requirements in s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this section, provided they are in compliance with s. 95.50 (1), Stats., and all of the following:

- (a) The performance standards in s. NR 502.04 (1).
- (b) The minimum operational and design standards in subs. (10) and (11), excluding the size reduction requirements in sub. (10) (c).
- (c) Only animal carcasses, farm animal manure, farm crop residue, yard residuals and clean chipped wood are composted at the facility.

(d) All the farm wastes composted are generated from agricultural operations either under common ownership, common management or located adjacent to each other, and the composting occurs on the property of one of these agricultural operations.

(e) The compost is utilized for agricultural landspreading, at the same farm or at another farm, in accordance with s. NR 518.04 (1) (b) or (i), except that compost made using ruminant animal carcasses may not be utilized at another farm.

(f) If yard residuals or clean chipped wood are accepted from off site, the following requirements shall be met:

1. The yard residuals or clean chipped wood shall be mixed with farm wastes to increase the carbon to nitrogen ratio and porosity of the composting process.

2. The combined volume of animal carcasses, farm animal manure, farm crop residue, yard residuals and clean chipped wood on site at one time may not exceed 10,000 cubic yards, including collected raw materials and compost being processed but excluding finished compost.

**(6) LIMITED EXEMPTION FOR YARD RESIDUALS COMPOSTING FACILITIES.** Facilities for composting yard residuals and clean chipped wood that do not exceed 20,000 cubic yards at one time, including raw materials and compost being processed, but excluding finished compost, are exempt from the requirements in s. NR 502.04 (3) (c), (4), (5), and (6), plan of operation submittal and all other requirements of this chapter, provided all of the following requirements are met:

(a) The performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(b) For new or expanded facilities, compliance with the locational criteria in sub. (8). New or expanded facilities with a capacity greater than 1,000 cubic yards shall comply with the initial site inspection requirements in s. NR 502.04 (2).

(c) The minimum operational and design standards in subs. (10) and (11), the recordkeeping requirements of sub. (15) (a) 3., the discharge inspection requirements in sub. (15) (a) 4., and the reporting requirements in sub. (15) (b).

(d) An operating license for the facility is issued by the department.

(e) The compost is applied to land, either on site or off site, in accordance with s. NR 518.04 (1) (i), or is otherwise used for horticultural, landscaping, or erosion control purposes.

**(7) LIMITED EXEMPTION FOR SOURCE-SEPARATED COMPOSTABLE MATERIAL COMPOSTING FACILITIES OF 5,000 CUBIC YARDS OR LESS.** Facilities for composting source-separated compostable material that exceed 50 cubic yards but do not exceed 5,000 cubic yards at one time, including raw materials and compost being processed, but excluding finished compost, are exempt from the requirements in s. NR 502.04 (3) (c), (4), and (5) and subs. (12) and (14), and the monitoring requirements of sub. (15) (a) 1. and 2., provided all of the following requirements are met:

(a) The performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).

(b) For new or expanded facilities, the initial site inspection requirements in s. NR 502.04 (2) and the locational criteria in sub. (8).

(c) The minimum operational and design standards in subs. (10) and (11), the plan submittal requirements in sub. (13), the recordkeeping requirements of sub. (15) (a) 3., the discharge inspection requirements in sub. (15) (a) 4., and the reporting requirements in sub. (15) (b).

(d) An operating license for the facility is issued by the department.

(e) For facilities that use animal manure as a raw material, the testing requirements of sub. (15) (a) 1.

(f) The compost is utilized for landspreading applied to land, either on site or off site, in accordance with s. NR 518.04 (1) (i), or is otherwise used for horticultural, landscaping, or erosion control purposes.

**(8) LOCAL CRITERIA FOR COMPOSTING FACILITIES.** (a) Unless exempt under sub. (2), (3), (4), or (5) from compliance with locational criteria, new or expanded compost facilities regulated under this section may not be located in any of the following areas unless an exemption has been granted in writing by the department under par. (c):

1. Within a floodplain.
2. Within 5 feet of the seasonal high groundwater table.
3. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
4. Within 250 feet of any navigable river or stream.

5. Within 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.

6. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.

(b) In addition to the restrictions in par. (a):

1. Facilities exempt under sub. (6) or (7) may not be located within 250 feet of any navigable lake, pond, or flowage, or within 100 feet of land owned by a person other than the owner or operator of the facility.

2. Facilities not exempt under sub. (2), (3), (4), (5), (6), or (7) may not be located within 500 feet of any navigable lake, pond, or flowage, or within 250 feet of land owned by a person other than the owner or operator of the facility.

(c) The department may grant exemptions from par. (a) 2. to 6. only upon demonstration by the applicant of circumstances which warrant the exemption. Exemption from compliance with par. (a) 1. may not be granted.

**Note:** Compost facilities associated with livestock operations that are required to have a wastewater discharge permit under the Wisconsin Pollution Discharge Elimination System and that handle manure, animal feed or other agricultural materials may be subject to additional locational requirements in chs. NR 151, NR 243 or ATCP 51.

**(10) MINIMUM OPERATIONAL STANDARDS FOR COMPOSTING FACILITIES.** Unless exempt under sub. (2) or (4), no person may operate or maintain a composting facility regulated under this section except in accordance with the following minimum operational requirements:

(a) Raw materials accepted for composting shall be source separated at the point of generation so that they have not been mixed or otherwise contaminated with nonapproved waste types, particularly materials which are not readily compostable. Prior to incorporation into the composting process, the raw materials shall be sorted as needed to ensure that materials which are not readily compostable are removed unless alternate operational methods are used in conjunction with equipment to produce a compost product virtually free of physical and chemical contaminants.

**Note:** Compost product which contains physical or chemical contaminants such as plastic, glass, metal scraps or regulated concentrations of heavy metals or organic compounds, may require controlled disposal under an approved landspreading plan or at a landfill.

(b) Raw materials in noncompostable bags shall be debagged within 24 hours of receipt at the facility. Raw materials, other than leaves and brush, in compostable bags shall be processed such that the contents of the bags are exposed to air within 24 hours of receipt at the facility. Stored waste shall be managed in accordance with the requirements applicable to the composting process. The following operational standards shall also be met for the wastes specified:

1. Grass clippings and food residuals from canned, frozen or preserved fruit or vegetable processing operations shall be incorporated into windrows or another composting process within 72 hours of receipt at the facility, unless odor becomes a problem at the facility in which case these materials shall be incorporated within 24 hours.

2. Animal carcasses, fish harvesting and processing residuals, manure and food residuals which are not from canned, frozen or preserved fruit or vegetable processing operations shall be incorporated into windrows or another composting process on the same operating day as received at the facility. Upon initial incorporation of these residuals, composting windrows or piles shall be covered with a minimum 6 inch layer of compost, high carbon material such as wood chips, or other suitable material to control odor and vectors.

3. All animal carcasses and food residuals shall be managed to prevent access by dogs and wild animals.

(c) Compost raw materials shall be size reduced if necessary to provide adequate particle surface area for effective composting.

(d) Materials within the composting process shall be thoroughly mixed as appropriate to the composting method and aerated as frequently as necessary. Windrow height, structure and porosity shall be designed and maintained to ensure that adequate oxygen is available at all times within the windrow or pile to prevent the process from becoming anaerobic.

**Note:** To maintain aerobic composting and prevent odor, aeration is needed whenever the process temperature rises to 150°F or more. Windrows consisting primarily

of leaves and wood waste are likely to require turning at least monthly from spring through fall.

(e) Materials shall be mixed into the composting process to provide a minimum initial carbon to nitrogen ratio of 20:1.

**Note:** For aerobic composting, the optimum carbon to nitrogen ratio ranges from approximately 20:1 to 40:1.

(f) Maximum windrow size and minimum windrow spacing shall match the capability and requirements of the equipment utilized at the facility.

(g) Material within the composting process shall be wetted as needed to control dust and maintain a moisture content conducive to efficient composting.

**Note:** For aerobic composting, the optimum moisture content is 50 to 60% by weight.

(h) Materials resulting from composting shall be:

1. Stabilized to reduce pathogenic organisms and to ensure that the materials do not reheat upon standing.

2. Free of sharp particles which could cause injury to persons handling the material.

3. Free of toxins and pathogens in amounts or concentrations that could cause detrimental impacts to public health or the environment.

**Note:** Pathogens are defined in ch. NR 204 as "disease causing organisms, including but not limited to certain bacteria, protozoa, viruses and viable helminth ova." Appropriate methods for pathogen reduction during composting are specified in 40 CFR, Part 257, Appendix II, Section B:

1. For in-vessel or static aerated pile composting, maintain a continuous minimum temperature of 55°C, or 131°F, for a minimum of 3 consecutive days.
2. For windrow composting, attain a minimum temperature of 55°C, or 131°F, on a minimum of 15 days, which are not required to be consecutive, and turn the windrow a minimum of 5 times during the high temperature periods.

(i) Compost product storage time shall be minimized to maintain the quality of the compost and the product shall be marketed as necessary to prevent excessive stockpiling.

(j) The facility shall be operated in a nuisance-free and environmentally sound manner.

**Note:** Landspreading of composted leaves, grass, brush and other source-separated compostable material is exempt from department landspreading regulations under s. NR 518.04 (1) (i) provided the material is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices and the facility is operated and maintained in a safe, nuisance-free manner. Public distribution of the compost may be regulated by the department of agriculture, trade and consumer protection (DATCP).

**(11) MINIMUM DESIGN STANDARDS FOR COMPOSTING FACILITIES.** Unless exempt under sub. (2) or (3), no person may construct or maintain a composting facility regulated under this section except in accordance with the following minimum design standards:

(a) Run-off from the composting area shall be discharged to a gently sloping vegetated area of sufficient size to prevent erosion and any discernible confined and discrete discharge of liquids or suspended solids to surface water or wetlands from the composting area.

(b) Slope, vegetation and surface water containment ditches, retention basins, compost berms or socks and other best management practices shall be used at the facility as needed to minimize erosion, prevent pollutant discharges from storm water runoff and maintain diffused surface drainage.

(c) Composting shall take place on an area sloped sufficiently to prevent ponding, and measures such as berms or ditches shall be used to prevent storm water run-on.

(d) If inspections performed under sub. (15) (a) 4. indicate improvements in storm water controls are needed to meet the requirements of pars. (a) through (c), the owner and operator of the facility shall make the needed improvements as soon as practicable and update the storm water pollution prevention plan, if applicable.

**Note:** Under ch. NR 216, new or expanding facilities with one acre or more of land disturbance are required to obtain a construction site storm water permit. In addition, the department may require a composting facility to obtain an industrial storm water discharge permit if it does not maintain compliance with a separate department permit or approval which includes storm water control requirements that are at least as stringent as those required under ch. NR 216, resulting in the discharge of pollutants to

waters of the state or constituting a significant contribution of pollutants to the waters of the state.

(e) The overall composting facility shall be of sufficient size to allow processing of materials as necessary to avoid nuisance conditions, and shall have adequate room for material stockpiles, windrows of manageable dimensions for maintaining aerobic conditions, curing piles, staging of finished compost, and equipment.

**Note:** Composting facilities that accept manure or are located at a livestock operation may be subject to additional state requirements in chs. NR 151 and 243 and in ATCP 51, as well as local regulations for manure storage and shoreland and floodplain zoning. Other local ordinances may apply to facilities regulated under this section.

**(12) ADDITIONAL OPERATIONAL AND DESIGN STANDARDS FOR NONEXEMPT COMPOSTING FACILITIES.** Unless exempt under sub. (2), (3), (4), (5), (6), or (7), new or expanded composting facilities regulated under this section shall comply with the following additional operational and design standards:

(a) All run-off that contacts materials being composted or raw materials staged for composting shall be managed as leachate and shall be directed to either a collection basin or a tank. Leachate may be used in the composting operation for moisture addition. All other leachate shall be treated at an onsite or offsite wastewater treatment facility permitted to accept it.

(b) All composting, and all storage of uncomposted raw materials other than leaves, clean chipped wood, clean sawdust and other raw materials with initial carbon to nitrogen ratios greater than 30:1 shall take place on a low-permeability pad constructed of asphalt, concrete, recompacted clay or other material approved by the department.

(c) At a minimum, the leachate collection capacity shall be designed for a 25 year, 24 hour storm event as defined in s. NR 205.05.

**(13) PLAN SUBMITTAL REQUIREMENTS FOR NONEXEMPT AND CERTAIN EXEMPT COMPOSTING FACILITIES.** Unless the facility is exempt under sub. (2), (3), (4), (5), or (6), applicants for all new or expanded composting facilities regulated under this section shall submit a plan of operation report and obtain department approval of the plan of operation report prior to construction of the new or expanded facility. Unless an exemption is granted by the department in writing, the plan shall be submitted in accordance with s. NR 500.05, except that facilities exempt under sub. (7) need not comply with s. NR 500.05 (4). The plan shall provide a design which complies with subs. (10), (11), and, as applicable, (12), and contain the following minimum information:

(a) The location of the property where the facility is proposed to be located.

(b) A brief description of the project, including the area served, an estimate of the annual tonnage and volume of material to be processed and identification of the materials to be used in the compost process.

(c) A description and drawing of the proposed facility, including location and size of windrows, or other composting process, on site traffic and process flow, the property boundaries, routes to transport feedstocks and finished compost to and from the facility and present land use within 1/4 mile of the facility.

(d) A description of the procedures for processing the material prior to incorporation into the windrow, or other composting process, such as de-bagging or size reduction.

(e) For each raw material proposed to be composted, either laboratory or literature data documenting the carbon, nitrogen, and moisture content and pH.

(f) A proposed raw material mix for composting, with calculations or laboratory data documenting the carbon, nitrogen, and moisture content and pH of the mix.

(g) A specification of the maximum size, including volume, height and width, for staging piles, composting windrows or other composting processes, curing piles, and finished compost storage. If the materials on site at any one time will exceed 40,000 cubic

yards of yard residuals and clean chipped wood, 10,000 cubic yards of source-separated compostable materials other than yard residuals and clean chipped wood, or 5,000 cubic yards of food residuals, an estimate of closure costs shall be provided with the plan of operation report, and prior to licensure, proof of financial responsibility in accordance with ss. NR 520.06 through 520.13 shall be provided for the closure costs, including the removal, transport and ultimate disposal of all waste material and compost at the site.

(h) A specification of the methods of measuring critical parameters within the windrow and other composting processes, and a description of methods that will be used to ensure the critical parameters are met. Critical parameters addressed shall include carbon to nitrogen ratio, temperature, moisture content, oxygen content, pH and stability. The specification shall describe methods to be used for maintaining aerobic conditions during the composting process, including turning equipment and frequency for passive ventilation, and equipment and residence time for mechanical ventilation, as well as actions to be taken in response to odors and composting process upsets.

(i) A description of the type of vehicles used for transporting feedstocks and finished compost to and from the facility, and a description of the type of equipment for turning or mixing and screening.

(j) A discussion of potential markets for the compost and material specifications necessary to be met for these markets, such as nutrient content, pH, particle size, appearance, moisture holding capacity or other pertinent specifications.

(k) Identification of any noncompostable waste, such as bags, which will be generated from the composting operation, and the name and location of solid waste disposal facilities at which any waste generated from the composting operation will be disposed of.

(L) Specification of the design, construction and documentation to be used for the low permeability pad, including materials, thicknesses and testing.

(m) A description of the planned sampling frequency and testing parameters for the finished compost.

(n) A storm water pollution prevention plan that meets the requirements of s. NR 216.27.

(o) Identification of local zoning and permit requirements that apply to the proposed facility.

**Note:** Under ch. NR 216, new or expanding facilities with one acre or more of land disturbance are required to obtain a construction site storm water permit.

(p) Proposed procedures for amending the plan in the event changes to the approved plan are needed.

**(14) CONSTRUCTION DOCUMENTATION FOR NONEXEMPT COMPOSTING FACILITIES.** (a) For facilities other than those exempt under sub. (2), (3), (4), (5), (6), or (7), the department may require owners and operators of new or expanded composting facilities regulated under this section to submit a construction documentation report to the department and obtain department approval of the construction documentation report prior to operation of the facility.

(b) Unless an exemption is granted by the department in writing, the construction documentation report shall be prepared in accordance with the department's plan approval and the requirements in s. NR 500.05. The construction documentation report shall be approved by the department prior to obtaining a license and prior to accepting waste at the facility.

**(15) MONITORING, RECORDKEEPING AND REPORTING.** (a) Unless exempt under sub. (2), (3), (4), (5), (6), or (7), owners and operators of composting facilities regulated under this section shall complete monitoring and reporting in accordance with the plan of operation approval and the following requirements:

1. Samples of the finished compost that is ready for sale, distribution or use shall be collected every 2,000 tons or 4,000 cubic yards, with a minimum of one sample per year, or, alternatively,



in accordance with the testing frequency specified by the United States Composting Council's Seal of Testing Assurance program, unless a different frequency is approved in writing by the department, and tested for the parameters in Tables 1 and 2.

**Note:** Only class A compost under sub. NR 502.12 (16) is subject to the limits in Tables 1 and 2. "Test Methods for Evaluation of Compost and Composting" (2002) and a list of laboratories certified under the Seal of Testing Assurance program are available from the United States Composting Council, 5400 Grosvenor Lane, Bethesda, Md 20814 (301) 897-2715, [www.compostingcouncil.org](http://www.compostingcouncil.org).

a. Samples shall be collected, handled and analyzed in accordance with methods listed in "Test Methods for Evaluation of Compost and Composting" published in 2002 by the United States Composting Council or other methods approved in writing by the department. Samples shall be tested at a laboratory certified under the United States Composting Council's Seal of Testing Assurance program or at another laboratory approved in writing by the department.

**Note:** "Test Methods for Evaluation of Compost and Composting" (2002) and a list of laboratories certified under the Seal of Testing Assurance program are available from the United States Composting Council, 15400 Grosvenor Lane, Bethesda, Md 20814 (301) 897-2715, [www.compostingcouncil.org](http://www.compostingcouncil.org).

b. Test results shall be made available upon request to the department, potential users of the compost, and to the general public.

2. Unfiltered leachate samples shall be taken from the collection basin or tank, and tested quarterly for the first 4 quarters and annually thereafter for BOD<sub>5</sub>, COD, field pH, field conductivity corrected to 25°C, nitrate+nitrite-nitrogen, and total dissolved solids.

3. Compost pile turning frequency and temperature readings as appropriate to the composting method used shall be documented and maintained to demonstrate pathogen reduction and odor control activities.

4. The facility shall be visually inspected by the owner or operator quarterly to evaluate storm water discharge quality and performance of discharge controls, and twice per year to identify non-storm water discharges if present.

(b) Unless exempt under sub. (2), (3), (4), or (5), the owner or operator of a composting facility regulated under this section shall prepare and submit an annual report to the department by March 1 on forms supplied by the department. The annual report shall include at least the following information:

1. Name and address of the facility.
2. Calendar year covered by the report.

3. Annual quantities and types of raw materials received and compost produced, in tons. Tonnage estimates may be based on volume records where scale weights are not available.

4. Annual quantity of compost sold, distributed or used, in tons, and quantity of class A compost sold, distributed or used.

5. Copies of laboratory analyses of composted material.

6. Any additional information required as a condition of the plan of operation approval.

**Note:** Copies of the annual reporting form may be obtained from the department of natural resources, bureau of waste and materials management, 101 South Webster Street, P.O. Box 7921, Madison, Wisconsin 53707-7921, (608) 266-2111, [DNRwastematerials@wisconsin.gov](mailto:DNRwastematerials@wisconsin.gov), or online at <http://dnr.wi.gov/topic/Recycling/regs.html>.

**(16) CLASS A COMPOST.** Finished compost may be designated and distributed as class A compost if it meets all of the following requirements:

(a) The compost is composed entirely of materials meeting the definition of "source-separated compostable materials" in s. NR 500.03 (219m).

(b) The compost is produced by one of the processes to reduce pathogens described in subd. 1. to 3., with temperature and retention time monitored and recorded each day until the temperature and retention time criteria are met:

1. Windrow method consisting of an unconfined composting process utilizing periodic aeration and mixing. Aerobic conditions shall be maintained during the composting process. A temperature of 55°C, or 131°F, shall be maintained in the windrow for at least fifteen days. The windrow shall be turned at least five times during the high-temperature period.

2. Mechanically aerated static pile method consisting of an unconfined composting process utilizing mechanically forced aeration of insulated compost piles. Aerobic conditions shall be maintained during the composting process. The temperature of the compost pile shall be maintained at a continuous minimum of 55°C, or 131°F, for at least three consecutive days.

3. In-vessel method consisting of a confined compost process utilizing mechanical mixing of compost under controlled conditions. The minimum retention time in the vessel shall be 72 hours with the temperature maintained at 55°C, or 131°F.

(c) The compost is tested in accordance with sub. (15) (a) 1. a. and b.

(d) The compost does not exceed any of the limits specified in Tables 1 or 2.



**Table 1.**  
**Test parameters for nonexempt facilities and class A compost**

Parameter	Limit for class A compost (mg/kg dry weight)
Arsenic	12
Cadmium	6.1
Chromium	120
Copper	400
Lead	95
Mercury	1.2
Molybdenum	15
Nickel	49
Selenium	4.9
Zinc	820
Physical contaminants	less than 1 percent
Fecal coliform	Either 1,000 MPN/g of total solids (dry wt) fecal coliform or 3 MPN/4g of total solids (dry wt) salmonella
Salmonella	

**Table 2.**  
**Maturity and stability testing for nonexempt facilities and class A compost**

Characteristic	Test procedure	Limit for class A compost
Maturity (both methods)	Carbon:Nitrogen ratio	10 – 20:1
	Seedling emergence and vigor bioassay	Indices above 80%
Stability (one of the following methods)	Respirometry (carbon dioxide evolution)	Up to 5 mg CO <sub>2</sub> -C/g volatile solids/day
	Dewar self-heating test	0 – 20°C temperature rise
	Solvita test	Index value 6 or greater

**History:** Cr. Register, January, 1988, No. 385, eff. 2-1-88; r. and recr., Register, June, 1996, No. 486, eff. 7-1-96; CR 05-020: am. (8) (a) 7. and (9) (a) 7. Register January 2006 No. 601, eff. 2-1-06; CR 10-128: am. (title), (1) (intro.), r. (1) (a) to (f), am. (2), (3) (title), (intro.), (a), (4) (title), (intro.), (c), (e) (intro.), r. and recr. (4) (e) 1. to 3., cr. (4) (e) 4., am. (5) (title), (intro.), (b), (c), (d), (e), (f) (intro.), 1., 2., (6) (title), (intro.), (b), (c), (e), (7) (title), (intro.), (a), (b), (c), r. and recr. (7) (e), (f), am. (8) (title), (a) (intro.), r. (8) (a) 4., 6., renum. (8) (a) 5., 7., 8. to be 4., 5., 6., r. and recr. (8) (b), cr. (8) (c), r. (9), am. (10) (intro.), (a) to (e), (h) 1., 3., (11) (intro.), (a), (b), r. and recr. (11) (d), cr. (11) (e), am. (12) (a), (b), (13) (title), (intro.), (b), (e), (f), (g), (h), (k), cr. (13) (m), (n), (o), (p), am. (14) (a), r. and recr. (15), cr. (16), r. and recr. Table 1 and Table 2 Register May 2012 No. 677, eff. 6-1-12.

### NR 502.13 Municipal solid waste combustors.

**(1) GENERAL.** (a) No person may operate or maintain a municipal solid waste combustor unless the person complies with the requirements in s. NR 502.04 and obtains a plan of operation approval under sub. (3) and an operating license from the department.

(b) Owners and operators of new or expanded municipal solid waste combustor facilities having a design capacity of greater than 100 tons per day shall provide proof of financial responsibility for closure prior to licensure. Closure costs shall include the costs of removal, transport and ultimate disposal of wastes.

(c) Owners and operators of new or expanded municipal solid waste combustor facilities shall demonstrate compliance with the applicable locational criteria listed in sub. (2).

**(2) LOCATIONAL CRITERIA.** (a) No person may establish, construct or expand a municipal waste combustor within the following areas, except as otherwise specified within this chapter.

1. Within a floodplain.
2. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.

(b) Exemptions from the requirements of par. (a) 2. may be granted only upon demonstration by the applicant of circumstances which warrant the exemptions. Exemptions from compliance with par. (a) 1. may not be granted. The department may impose additional locational criteria if there is a significant potential for the facility to cause environmental pollution as defined in s. 299.01 (4), Stats., nuisance conditions or bird hazard to aircraft.

**(3) PLAN OF OPERATION.** No person may establish, construct or operate a municipal solid waste combustor or expand an existing facility prior to obtaining approval in writing from the department

of a plan of operation for the facility. The plan of operation for the municipal solid waste combustor shall provide a design which complies with the operational requirements in sub. (4) and contain, at a minimum, the following:

(a) A map or aerial photograph of the area showing land use and zoning within 1/4 mile of the site. The map or aerial photograph shall be of sufficient scale to show all homes, industrial buildings, roads and other applicable details and the details shall be identified and indicated on the map or aerial photograph.

(b) A plot plan of the municipal solid waste combustor site including means of limiting access such as fencing, gates, natural barriers; methods of acceptably screening the facility from the surrounding area; general layout of equipment and flow pattern; road access; and location of existing and proposed utilities serving the municipal solid waste combustor.

(c) A report which shall include the following information:

1. The legal description of the property where the municipal solid waste combustor will be located.
2. Population, area and facilities to be served by the municipal solid waste combustor.
3. Anticipated type and quantity of waste to be handled by the municipal solid waste combustor.
4. Persons responsible for the municipal solid waste combustor operations.
5. Methods of treating or disposing of any liquid wastes or waste waters resulting from the operation of the combustor.

(d) A description of appurtenances and procedures intended to store refuse beyond the end of the working day and to control dust, odors, fire outside the burning chamber and windblown materials.

(e) A description of methods of volume reduction including compaction, compression, baling, shredding, grinding, tamping, separating or classifying.

(f) A description of daily clean up procedures.

(g) A description of municipal solid waste combustor inspection and maintenance schedule and procedures.

(h) Detailed drawings and specifications of all structures, equipment and site.

(i) A report which includes furnace design criteria and expected performance data.

(j) Identification of the site at which the residue will be disposed and alternative sites available for use when the primary site is inoperative.

(k) For all new or expanded facilities, the plan of operation shall also include:

1. The name of the emergency fire-fighting unit that will respond to fire calls at the facility.

2. A discussion of the anticipated sequence of required events for facility closure.

3. A detailed analysis in accordance with ch. NR 520 of the financial responsibility for facility closure. This shall include an itemized cost estimate for phased and final facility closure. All assumptions used in developing the cost estimates shall be justified.

**Note:** Municipal solid waste combustors must also have the air management permits required under s. 285.60, Stats.

**(4) OPERATIONAL REQUIREMENTS.** No person may operate or maintain a municipal solid waste combustor except in conformance with the following minimum requirements, unless an exemption is granted by the department in writing:

(a) The municipal solid waste combustor shall be situated, equipped, operated and maintained in a nuisance-free manner.

(b) Adequate shelter and sanitary facilities shall be available for facility personnel.

(c) A sign shall be prominently posted at the entrance to the facility which indicates name, license number, hours of operation, necessary safety precautions and any other pertinent information.

(d) All incoming solid waste shall be confined to the designated storage area.

(e) All solid waste, except residue, shall be stored in conformance with s. NR 502.05 (5) or (6).

(f) Dust shall be controlled in all waste handling areas.

(g) Permanent records shall be maintained in accordance with sub. (7).

(h) Appropriate fire-fighting equipment shall be available in the storage and charging areas and elsewhere as needed.

(i) Arrangements shall be made with the local fire protection agency to provide adequate emergency fire-fighting forces.

(j) Means of communication with emergency facilities shall be provided.

(k) Adequate equipment shall be provided and used to clean the waste storage, waste handling, waste charging, and ash handling areas as may be required in order to maintain the plant in a sanitary condition.

(L) The charging openings as well as all equipment throughout the plant shall be provided with adequate safety equipment.

(m) The municipal solid waste combustor shall be designed and operated so that it will not cause a nuisance because of the emission of noxious odors, gases, contaminants or particulate matter or exceed emission limitations established by state air management rules in chs. NR 400 to 499.

(n) Residue shall be disposed of at a solid waste facility licensed by the department to accept the material or be handled by an alternate method approved in writing by the department. Approval shall be issued on a case-by-case basis after review of the information contained in sub. (6).

(o) All wastewater from the combustor shall be discharged into a sanitary sewer or other system approved in writing by the department.

(p) Upon completion of construction of a new municipal solid waste combustor and at least 10 days prior to initial operation, the department shall be notified to allow inspection of the combustor both prior to and during any performance tests and initial operation.

(q) Open burning of solid waste may not be conducted.

(r) An approved alternative method shall be used for solid waste disposal during any time that the municipal solid waste combustor is inoperative.

(s) The incoming waste shall be screened to eliminate unacceptable material from entering the municipal solid waste combustor such as hazardous waste, asbestos, explosive materials or other materials as defined in sub. (9).

(t) Residue storage at the municipal solid waste combustor shall be in accordance with the following:

1. The residue shall be wetted at all times during storage to prevent dust emissions. The facility may use alternative methods of dust control that are approved by the department prior to implementation. Provisions shall be made to prevent the release of residue into the air in the residue handling areas.

2. The storage area shall have an impervious surface on which the residue is stored and a collection system for any liquids coming into contact with the residue. All liquid that comes into contact with the residue which is not used as makeup water in the quench tank shall be collected and treated at a wastewater treatment plant approved by the department.

3. Access to the temporary storage areas shall be restricted to authorized personnel only. Fencing or other means of control acceptable to the department shall be maintained around the storage facility.

(u) All treatment or mixing of residue shall be performed in a manner which controls air and water emissions.

(v) Treatment or mixing of residue at a facility other than at the municipal solid waste combustor shall require a processing license under s. NR 502.08.

**(5) RESIDUE SAMPLING.** (a) The owner or operator shall collect representative samples of residues produced by burning municipal solid waste for characterization required in sub. (6). The samples shall be collected over a minimum one-week period every quarter within 2 weeks of March 15, June 15, September 15 and December 15, except as provided in par. (f). Minimum 2 gallon volume samples shall be obtained hourly by a procedure approved by the department. The hourly samples shall be composited daily. Each daily sample shall then be composited together at the end of the testing period to result in a minimum of one representative sample. Compositing shall be performed in a manner acceptable to the department.

(b) Unless the residues are mixed as part of an internal, mechanical process, air pollution control equipment residue samples shall be collected separately from bottom-ash samples. If the mixing is part of an internal mechanical process, then the sampling shall be performed after the residue is mixed. If an ash treatment process occurs at the municipal solid waste combustor, then the sample shall be collected after treatment.

(c) For a municipal solid waste combustor where the compositing methods established in par. (a) would be impractical, alternatives may be approved by the department.

(d) An adequate volume of each representative composite sample to be tested shall be retained to allow for confirmatory testing if any of the levels established under sub. (6) (g) are exceeded.

(e) In addition to the routine quarterly sampling required in par. (a), representative samples shall be collected within 2 weeks of initial startup and shakedown, and after any significant changes in plant design, operation or waste input, if the changes are expected to cause an increase or decrease in the number or concentrations of the residue parameters listed in sub. (6), Table 1. The operator shall identify, and submit to the department, the changes made and the anticipated effect the changes will have on the residues.

(f) An operator of a municipal solid waste combustor that has a design capacity of less than 10 tons per day shall:

1. Collect representative samples over a minimum one-week period every year within 2 weeks of June 15.

2. Collect representative samples quarterly to test for the 8 heavy metal parameters listed in sub. (6) (g) and within the 2 weeks of initial startup and shakedown and after any significant changes in plant design, operation or waste input, if the changes are expected to cause an increase or decrease in the number or concentrations of the listed parameters in the residue. The operator shall identify, and submit to the department, the changes made and the anticipated effect the changes will have on the residues. The sample volume collected and compositing procedures shall comply with par. (a).

3. Comply with all of the other provisions of this section.

(6) RESIDUE CHARACTERIZATION. (a) An operator of a municipal solid waste combustor with a design capacity of 10 tons per day or greater shall test its residue quarterly the first year after an approval has been issued. After the first year of quarterly testing the residues shall be tested on an annual basis, except as provided in par. (m). The testing program listed in Table 1 shall be applied to all samples collected as required by sub. (5) (a) to (d). The department may require dioxin and furan testing, if circumstances warrant. Test results shall be submitted to the department with the annual report specified under sub. (8).

(b) An operator of a municipal solid waste combustor with a design capacity of less than 10 tons per day shall:

1. Test residue samples collected under sub. (5) (f) in accordance with the testing program in par. (g).

2. Test its residue annually beginning the first June after an approval has been issued using the testing program listed in Table 1 for all samples collected under sub. (5) (f). The department may require dioxin or furan testing, if circumstances warrant.

3. Submit test results to the department with the annual report specified under sub. (8).

4. Comply with all of the other provisions of this section.

(c) A leachate sample from the monofill where the residue is disposed of may be substituted for the synthetic precipitation leaching procedure, EPA Method 1312, after the initial 4 rounds of testing. The leachate sample shall be tested for all of the parameters listed in Table 1, Section III, unless a reduction in the number of parameters tested for has been approved by the department. The municipal solid waste combustor using the leachate substitute shall be responsible for the testing. If significant levels of any of the listed parameters are detected in the leachate tested from a monofill that receives multiple sources of residue, the department may require all contributing municipal solid waste combustors to perform leach testing of their residue using EPA Method 1312.

**Note:** Method 1312 is in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, third edition, November 1986, as amended by Updates I in July 1992, II in September 1994, IIA in August 1993, IIB in January 1995, IIC in December 1996 and IIIA in April 1998. The test methods are available at no cost at [www.epa.gov/epaoswer/hazwaste/test/main.htm](http://www.epa.gov/epaoswer/hazwaste/test/main.htm). Copies of the test methods may be obtained from the superintendent of documents, U.S. government printing office, P.O. Box 371954, Pittsburgh, PA 15250-7954, (866) 512-1800, [www.gpoaccess.gov](http://www.gpoaccess.gov). Copies may also be obtained from the National Technical Information Service, U.S. department of commerce, 5285 Port Royal Road, Springfield, VA 22161, (800) 553-6847, [www.ntis.gov](http://www.ntis.gov). Copies of the test methods are available for inspection at the offices of the department of natural resources, legislative reference bureau and the secretary of state.

(d) The operator of the municipal solid waste combustor may apply to the department at the end of the initial 4 rounds of testing for elimination of those parameters listed in Table 1, Section II which do not appear in its residues at significant levels.

(e) The provisions of this subsection do not supersede the testing requirements for the 8 heavy metal parameters listed in par. (g) using the toxicity characteristic leaching procedure, EPA Method 1311.

(f) During the scheduled testing period, if any parameter in the bulk analysis is not detected at or above the specified detection limits, then that parameter may be eliminated from further leach testing for that test period.

(g) An operator of a municipal solid waste combustor shall test its residue for the parameters listed in this paragraph quarterly and

within 2 weeks of completing initial startup and shakedown, and after any significant changes in plant design, operation or waste input that significantly affects or changes the residue characteristics by using the toxicity characteristic leaching procedure, EPA Method 1311. Multiple samples may be tested separately and the results combined to obtain an arithmetic mean for each parameter. The operator shall immediately notify the department if test results indicate that any of the following limits are exceeded:

**Note:** Method 1311 is in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, third edition, November 1986, as amended by Updates I in July 1992, II in September 1994, IIA in August 1993, IIB in January 1995, IIC in December 1996 and IIIA in April 1998. The test methods are available at no cost at [www.epa.gov/epaoswer/hazwaste/test/main.htm](http://www.epa.gov/epaoswer/hazwaste/test/main.htm). Copies of the test methods may be obtained from the superintendent of documents, U.S. government printing office, P.O. Box 371954, Pittsburgh, PA 15250-7954, (866) 512-1800, [www.gpoaccess.gov](http://www.gpoaccess.gov). Copies may also be obtained from the National Technical Information Service, U.S. department of commerce, 5285 Port Royal Road, Springfield, VA 22161, (800) 553-6847, [www.ntis.gov](http://www.ntis.gov). Copies of the test methods are available for inspection at the offices of the department of natural resources, legislative reference bureau and the secretary of state.

1. Arsenic (As)	5.0 mg/l
2. Barium (Ba)	100.0 mg/l
3. Cadmium (Cd)	1.0 mg/l
4. Chromium (Cr)	5.0 mg/l
5. Lead (Pb)	5.0 mg/l
6. Mercury (Hg)	0.2 mg/l
7. Selenium (Se)	1.0 mg/l
8. Silver (Ag)	5.0 mg/l

**Note:** Copies of these test procedures can be obtained from the department of natural resources, bureau of waste management, 101 S. Webster Street, Madison, Wisconsin 53707. Copies of these test methods are also available for inspection at the offices of the legislative reference bureau and the secretary of state. Personal copies can be obtained from the U.S. environmental protection agency, office of solid waste, 401 M Street SW, Washington D.C. 20460.

(h) If any of the limits in par. (g) are exceeded, the operator may elect to complete confirmatory testing on the retained sample within 2 weeks of receiving the initial results. If the operator elects to perform the confirmatory testing, only the constituents exceeding the limits will require testing.

(i) If any of the limits in par. (g) are exceeded and confirmatory testing under par. (h) is not completed, or if the test results of par. (h) confirms the exceedance of the limits for the parameters listed in par. (g), the residue may be treated to reduce leachable constituents below the threshold values, prior to disposal, or the residue shall be managed in accordance with chs. NR 660 to 679 until a significant change to the facility design, operation or waste input can be demonstrated which produces consistent test results that meet the specified limits.

(j) If a significant change to the waste input can be demonstrated, the operator shall confirm this change by completing confirmatory testing of one new sample taken in accordance with sub. (5). In cases where the contributing waste input cannot be isolated, consistent test results meeting the specified limits shall be obtained from monthly testing according to the requirements of par. (g) for a minimum of 3 months. Only the constituents exceeding the limits in par. (g) will require retesting under this provision.

(k) If none of the limits in par. (g) are exceeded or the confirmatory testing defined in par. (h) is below the specified limits in par. (g), the residue may be disposed of in a single composite lined monofill in accordance with the provisions of s. NR 504.11 (2) (a). In cases where limits in par. (g) were exceeded during initial testing, but were not exceeded in the confirmatory testing, additional testing in accordance with par. (g) shall be performed monthly for a minimum of 3 months to confirm that the initial exceedances were not representative of the residue characteristics. Only the constituents exceeding the limits require retesting under this provision. If there are any exceedances during this 3 month period, the residue shall be managed in accordance with the provisions of chs. NR 660 to 679.

(L) All treated residue shall be tested according to the requirements of this section.

(m) The department may require different testing frequency and parameters, if circumstances warrant.

**Table 1. Parameters and Detection Limits**

I. Toxicity Characteristic Leaching Procedure EPA Method 1311: (quarterly)					
Arsenic (As)	0.05	mg/l	Barium (Ba)	1.0	mg/l
Cadmium (Cd)	0.01	mg/l	Chromium, Total (Cr)	0.05	mg/l
Lead (Pb)	0.05	mg/l	Mercury (Hg)	0.002	mg/l
Selenium (Se)	0.01	mg/l	Silver (Ag)	0.05	mg/l
II. Bulk chemical analysis:					
Aluminum (Al)	0.1	mg/kg	Antimony (Sb)	1.0	mg/kg
Arsenic (As)	0.5	mg/kg	Barium (Ba)	5.0	mg/kg
Boron (B)	1.0	mg/kg	Cadmium (Cd)	0.5	mg/kg
Calcium (Ca)	1.0	mg/kg	Chromium, Total (Cr)	0.4	mg/kg
Iron (Fe)	0.1	mg/kg	Lead (Pb)	0.6	mg/kg
Magnesium (Mn)	0.02	mg/kg	Mercury (Hg)	0.04	mg/kg
Potassium (K)	0.01	mg/kg	Selenium (Se)	0.6	mg/kg
Silver (Ag)	1.0	mg/kg	Sodium (Na)	1.0	mg/kg
Zinc (Zn)	2.0	mg/kg	Total Organic Carbon (TOC)	1.0	mg/kg
			Total Organic Halogen (TOX)	0.25	mg/kg
III. Synthetic Precipitation Leaching Procedure EPA Method 1312.					
A. All of the parameters detected in the bulk chemical analysis, reported in mg/l.					
<b>Note:</b> Methods 1311 and 1312 are in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, third edition, November 1986, as amended by Updates I in July 1992, II in September 1994, IIA in August 1993, IIB in January 1995, III in December 1996 and IIIA in April 1998. The test methods are available at no cost at <a href="http://www.epa.gov/epaoswer/hazwaste/test/main.htm">www.epa.gov/epaoswer/hazwaste/test/main.htm</a> . Copies of the test methods may be obtained from the superintendent of documents, U.S. government printing office, P.O. Box 371954, Pittsburgh, PA 15250-7954, (866) 512-1800, <a href="http://www.gpoaccess.gov">www.gpoaccess.gov</a> . Copies may also be obtained from the National Technical Information Service, U.S. department of commerce, 5285 Port Royal Road, Springfield, VA 22161, (800) 553-6847, <a href="http://www.ntis.gov">www.ntis.gov</a> . Copies of the test methods are available for inspection at the offices of the department of natural resources, legislative reference bureau and the secretary of state.					
B. Alkalinity	1.0	mg/l	Chemical Oxygen Demand (COD)	5.0	mg/l
Chloride	4.0	mg/l	Fluoride	4.0	mg/l
pH	0.1	units	Specific Conductance	10.0	mhos/cm
Sulphate	1.0	mg/l	Total Dissolved Solids (TDS)	5.0	mg/l
Total Hardness	1.0	mg/l			
IV. Physical test:					
Dry Bulk Density			Percent Combustible		
Moisture Content as Generated			Grain Size Analysis:		
			Sieve test		
			Hydrometer test		

**(7) RECORD KEEPING.** Operators of municipal solid waste combustor facilities shall maintain a record at the facility available for inspection by department staff during normal business hours. Records shall be compiled on a monthly basis, at a minimum. The department may approve alternative record-keeping programs. The following shall be included in the records:

(a) The hours of plant operation, combustion temperatures and residence time.

(b) The weight of material coming into the facility.

(c) The weight of material rejected by the facility and where it was sent. Where exact weights are not available, estimates shall be made of the weight of rejected hazardous waste, lead-acid batteries, the material sent to a recycler and the material sent to a landfill.

(d) The weight of residue produced and where it was sent. Where exact weights are not available, the volume of residue produced shall be recorded.

(e) A list of the states of origin of solid waste accepted at the facility in the previous year and the amount, by weight, originating in each state.

(f) The recording person's initials and the date of each entry.

**(8) ANNUAL REPORT.** (a) The facility operator shall compile and submit to the department the records defined in sub. (7) as an annual report.

(b) The report shall cover the calendar year and be submitted no later than April 1 of the following year.

(c) The annual report shall include the results of all testing required under sub. (6) for the previous year.

**(9) WASTE SCREENING.** (a) The operator or designated agent of a municipal solid waste combustor shall screen the incoming waste to eliminate the materials identified in pars. (b) to (d), from entering the facility.

(b) The screening of materials from the combustion process may be accomplished at the facility or by the contributors of the waste from the area served by the facility that have an effective recycling program. Additional restrictions to waste acceptance for some facilities may exist as specified in s. 287.07, Stats. Alkaline batteries and similar heavy metal sources should not be accepted at municipal solid waste combustor facilities.

(c) Hazardous waste as defined by s. NR 660.10 (52) may not be accepted at a municipal solid waste combustion facility. This includes waste produced by small quantity generators. Household hazardous waste shall be excluded if separated from residential waste. Household hazardous waste may be accepted if not separated from residential waste.

(d) Major appliances, large metal objects, lead/acid batteries, building materials, and noncombustible furniture, office and farm equipment may not be fed into a municipal solid waste combustor.



(e) Waste oils may be burned only in compliance with state and federal regulations.

**(10) WASTE SCREENING PLAN.** The operator of a municipal solid waste combustion facility shall evaluate and submit to the department a waste screening and handling plan that contains the following:

- (a) Procedures for limiting the items listed in sub. (9) (c) and (d) from entering a combustor.
- (b) Identification of other items that will not be accepted by the combustor due to heavy metal content or other reasons.
- (c) Procedures for handling and disposing of screened items.
- (d) Procedures and authority for enforcement of its requirements.
- (e) The plan may include the effective recycling program

under s. 287.11, Stats., developed by each responsible unit or units served by the municipal solid waste combustor. Other waste reduction plans, such as medical waste reduction plans, may be included where appropriate.

(f) No municipal solid waste combustion facility may begin initial operation or continue operating unless a waste screening and handling plan under this section has been approved by the department.

**(11) OPERATOR QUALIFICATIONS.** The municipal solid waste combustion facility shall be operated by personnel meeting the operator qualification requirements established under s. 285.51, Stats.

**History:** Cr., Register, June, 1996, No. 486, eff. 7-1-96; CR 05-020: am. (6) (a), (b) 2., (c) and Table 1 Register January 2006 No. 601, eff. 2-1-06; corrections in (6) (i), (k), (9) (c) made under s. 13.92 (4) (b) 7., Stats., Register January 2011 No. 661.

## APPENDIX B

### **ENVIRO-SAFE SOLID WASTE CLOSURE PLAN (AUGUST 14, 2012)**



**Enviro-Safe Consulting, LLC.  
Solid Waste Closure Plan (WDNR 502.04)  
August 14, 2012**

**Introduction**

Enviro-Safe Consulting, LLC. (Enviro-Safe) provides environmental and safety compliance services and training programs. We also provide alternative reuse recycling services and will own and operate a solid waste transfer facility and recycling center, effective August of 2012. The transfer facility will be used for the transfer, storage and recycling of industrial byproducts. The physical address for this facility is located at W130 N10500 Washington Drive, Germantown, Wisconsin 53022. Operating permits and licenses from the Wisconsin Department of Natural Resources (WDNR) will include NR 502, NR 663, NR 673 and NR 679. The Village of Germantown conditional use permit also requires a completed Closure Plan.

The intent of this plan is to ensure that upon implementation, the solid waste transfer facility will be closed in manner that:

1. Minimizes the need for further maintenance,
2. Controls, minimizes or eliminates, to the extent necessary, threats to human health and the environment and post-closure escape of solid waste, solid waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground, surface waters, or to the atmosphere; and,
3. Compiles with the closure requirements of the WDNR and the Village of Germantown regulations.

The operation of the solid waste transfer facility is such that all solid waste will be pre-approved and brought into the warehouse predominately in non-bulk containers, typically 55 gallon drums and consolidated into larger containers. These larger containers will then be sent off site for various recycling programs. Because these recyclable materials will be containerized without releases to the environment, closure is expected to be clean, with no waste and waste constituents remaining at the facility. Therefore, it would be anticipated there would be no need for further maintenance of post-closure escape of solid waste, and for post-closure monitoring. In event a release to the environment occurs, this plan will be amended within thirty (30) days of such occurrence to include further maintenance of post-closure escape of solid waste and industrial by-product and post-closure monitoring, and submitted to the Village of Germantown Village Engineer for review and acceptance.





### Facility Identification

Enviro-Safe Consulting, LLC.  
W130 N10500 Washington Drive  
Germantown, WI 53022  
Washington County  
Office: 262-790-2500  
Fax: 262-790-2560

### Facility Type

Enviro-Safe will operate a solid waste transfer facility for bulking / consolidation, staging / storage of recyclables. The applicable WDNR permits required for the operation of this facility are Solid Waste Transfer (NR 502), Hazardous Waste Transporters Permit (NR 663), Universal Waste (NR 673) and Used Oils (NR 679). Enviro-Safe will also manage qualified mixed flammable solvents with bulk storage capabilities.

Enviro-Safe will occupy a transfer facility on approximately a 3-acre parcel located at W130 N10500 Washington Drive in Germantown, Wisconsin. Operations at the facility include transportation, transfer, storage and recycling of non-hazardous waste and temporary 10-Day storage of hazardous waste, recycling of flammable hazardous materials, recycling of used oils and oily wastewaters and recycling of universal waste. This closure plan addresses the removal of all solid waste and flammable materials.

Attached is Floor Plan (Item #1 Floor Plan A-101), which identifies the designated storage areas for the solid waste materials and flammable storage areas. The tank farm contains two (2) 18,000 above ground storage tanks (AST) and is also identified on this floor plan for the bulk storage of flammable materials, and is located outside, just northeast of the building. There are eight areas on the floor plan designated for all of these materials. They are listed below:

1. Solid Waste Area 1 – Universal Waste – Northwest Corner in Storage Area # 124
2. Solid Waste Area 2 – Used Oils – Southwest Corner in Storage Area # 124
3. Solid Waste Area 3 – Solid Waste – (2) Center West Piles in Storage Area # 124
4. Solid Waste Area 4 – Solid Waste Load/Unload – Northeast Corner in Storage Area # 124
5. Hazardous Waste Area 5 – Hazardous Waste – Southeast Corner in Storage Area # 124
6. Flammable Materials Area 6 – Flammable Storage – Storage Area # 125
7. Flammable Materials Area 7 – Flammable Dispensing – Storage Area # 126
8. Flammable Materials Area 8 – Bulk Flammable ASTs – Outside of Building, Northeast Tank Farm



### **Notice to WDNR and Closure Schedule**

Enviro-Safe shall follow the closure procedural requirements under the Solid Waste regulations of NR 502.04, which shall at a minimum, entail the following:

- (a) Within 5 calendar days after ceasing to accept waste and industrial by-product at the facility, remove all putrescible waste and industrial by-product and containerize, properly utilize or dispose of all other waste.
- (b) Within 60 days after ceasing to accept waste and industrial by-product at the facility.
  - (i) Remove all waste and industrial by-products,
  - (ii) Statistically wipe sample building and floor surfaces and analyze for residual contamination of wastes and industrial by-products; and,
  - (iii) If analyzes indicate that residual contamination exists, properly decontaminate building and floor surfaces and properly dispose of resulting rinseates and other associated decontamination materials.
- (c) Unless otherwise specified in a WDNR department issued approval, the following minimum requirements shall also be met by the owner or operator of a facility for which a plan of operation is required.

At least 60 days prior to beginning the final closure or any partial closure of the facility, Enviro-Safe shall notify the department and the Village of Germantown Village Engineer in writing of the intent to close or partially close the facility.

At least 60 days prior to ceasing to accept waste and industrial by-product at the facility for an extended period, the department and the Village of Germantown Village Engineer shall be notified in writing and a sign shall be posted in a prominent location notifying users of the date on which the facility will cease to accept waste and industrial by-product. In the case of ceasing to accept waste and industrial by-product for an extended period due to unplanned and unforeseeable circumstances, such as fire or equipment failure, department and Village of Germantown Village Engineer notification and sign posting shall be completed as soon as practical. Alternatives to posting a sign may be implemented with department concurrence for facilities which are not open to the general public.

### **Closure Costs**

Enviro-Safe has addressed the financial requirements of the WDNR code NR 502.04 as well as the Village of Germantown's requirements. Under the WDNR code, it requires an estimated dollar amount for the removal of all solid waste based on the building being at full container capacity and that the material had to be sent for recycling or sent for proper disposal. The Village of Germantown in addition requires this estimate to include all of the flammable liquid materials. Listed below are the estimated costs for the removal of 70,840 gallons of material:





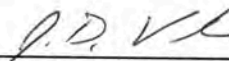
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<u>Building Area</u>	<u>Volume</u>
Tank Farm	36,000 Gallons (2 ASTs @ 18,000 Gallons / Tank)
Area # 124	19,360 Gallons (352 Drums – Solid Waste Storage Warehouse Area)
Area # 124	1,400 Gallons (4 Totes – Solid Waste Storage Warehouse Area)
Area # 125	9,240 Gallons (168 Drums – Flammable Material Storage Area)
Area # 126	<u>4,840</u> Gallons (88 Drums – Flammable Material Dispensing Area)
	70,840 Gallons Total

The above items reference the overall maximum storage capacity of the building.

The estimated overall cost to remove all full containers referenced under NR 502.04 and all flammable liquids is to not exceed \$50,000.00. The Village of Germantown is beneficiary to the Irrevocable Standby Letter of Credit #5201203 with Spring Bank for \$50,000.00, which is in custody of the Village of Germantown Village Planner.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

  
\_\_\_\_\_  
Jeffrey D. Vilione – President  
Enviro-Safe Consulting, LLC.

Attachment:

Item #1- Floor Plan A-101 (Re: Figure 3 of SPCC Plan)

## APPENDIX C

### **SOLID WASTE FACILITY INITIAL LICENSE OPERATION**

### Solid Waste Facility Initial License Application

Form 4400-088 (R 9/12)

**Notice:** Applicants are required to complete a separate application to obtain a license to operate each solid waste facility, under the provisions of s. 289.31, Wis. Stats. Failure to submit complete information as requested on this form shall be grounds for denial of the application. Personal information collected will be used for management of DNR programs. Wisconsin's Open Records law requires the Department to provide this information upon request [ss. 19.31 - 19.69, Wis. Stats.].

Leave Blank - DNR Use Only			
Date Received	Exp. Year	Check No.	Check Amt.
License No.	FID No.	Date License Issued	Completed By

Read instructions on reverse side before completing this form.

#### Facility Information

1. Name of Facility

Enviro-Safe Resource Recovery

2. Name of Property Owner

ESTATE  
 JDV Realestate Holdings, LLC

4. Name of Licensee (Facility Operator)

Enviro-Safe Resource Recovery

6. Contact Person

Jeffrey D. Vilione

8. Street, Route or Box (mailing address)

W130 N10500 Washington Drive

10. City

Germantown

State

WI

11. ZIP Code

53022

3. Property Owner is (county, city, private, federal, tribal, etc.)

Private

5. Licensee is (county, city, private, federal tribal, etc.)

Private

7. Title

President

9. Telephone Number of Contact Person (include area code)

(262) 790-2500 Ext.

12. E-mail Address

jvilione@enviro-safe.com

13. Type of Facility (number codes are for Department tracking): (check the appropriate box)

- |  |  |
|--|--|
| <input type="checkbox"/> Woodburning Facility (001)  | <input type="checkbox"/> SW Yard Residuals Composting < 20,000 cu yd (103) |
| <input type="checkbox"/> Storage Facility (010)  | <input type="checkbox"/> SW Yard Residuals Composting > 20,000 cu yd (104) |
| <input checked="" type="checkbox"/> Processing Facility (040)                                    | <input type="checkbox"/> Transfer Facility <100 ton/day (030)              |
| <input type="checkbox"/> SW Source Separated Compostable Material Composting < 5,000 cu yd (105) | <input type="checkbox"/> Transfer Facility >100 ton/day (035)              |
| <input type="checkbox"/> SW Source Separated Compostable Material Composting > 5,000 cu yd (106) | <input type="checkbox"/> Other _____                                       |

14. Facility Location	¼ / ¼ NW	¼ SE	Section	Township	Range	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	County	# of Licensed Acres
			25	9 N	20		Washington	3.00

Address

W130 N10500 Washington Drive

Township

Germantown

#### Approved Waste Types (check all that apply)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Bark/Brush (W070) | <input type="checkbox"/> Fly Ash (W280)    | <input type="checkbox"/> Source-Separated Compostable Materials (W745)  |
| <input type="checkbox"/> Refuse (W670)     | <input type="checkbox"/> Tires (W770)      | <input type="checkbox"/> Infectious Waste (W420) <input checked="" type="checkbox"/> Other: industrial wastes |
| <input type="checkbox"/> Garbage (W340)    | <input type="checkbox"/> Yard Waste (W800) | <input type="checkbox"/> Paper Mill Sludge (W580) <input type="checkbox"/> Other: _____                       |
| <input type="checkbox"/> Demolition (W220) | <input type="checkbox"/> Foundry (W290)    | <input checked="" type="checkbox"/> Contaminated Soil (W180) <input type="checkbox"/> Other: _____            |

#### Service Area (list counties or check the statewide box)

Statewide

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 5. \_\_\_\_\_ 6. \_\_\_\_\_ 7. \_\_\_\_\_ 8. \_\_\_\_\_



## Solid Waste Facility Initial License Application

Form 4400-088 (R 9/12)

Page 2 of 2

### Landfills and Other Facilities

15. Landfills and Other Facilities to which waste is taken (include DNR license number if known):

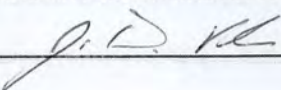
	Name	Location (City and State)	DNR License Number
1.	Covanta Energy	Indianapolis, IN	NA
2.	EQ Detroit	Detroit, MI	NA
3.			

16. Collection and Transportation Services Using Facility:

	Name	DNR License Number
1.	Enviro-Safe Resource Recovery	15810
2.		
3.		

### Certification

I hereby certify that the information and attachments provided are true and complete.

Print Name	Signature of Authorized Contact Person	Title	Date Signed
Jeffrey D. Vilione		President	3/17/15

### Instructions for Completing This Form

1. This form is to be used for initial licensing of Solid Waste Facilities except for solid waste landfills and transporters. Applicants for landfill licenses should use Form 4400-19, Landfill License Application, and applicants for solid waste transportation licenses should use Form 4400-179, Transportation License Application for Solid Waste Transporters.
2. Submit this application form, with the appropriate license fee, after you have received the plan of operation approval for your facility. See ch. NR 520, Wis. Adm. Code and Table 2 for more information.
3. All items may not apply to all types of facilities. Items that do apply must be completed, items that do not apply should be marked with "N/A".
4. Sign and date the form. Signature must be that of the authorized contact person: facility owner, corporation officer, municipal or county official, etc.
5. Your check or money order, payable to the Department of Natural Resources, must be attached. Please mail to the appropriate DNR regional office. Do not send to the Department office in Madison.
6. Any questions concerning solid waste licensing, or the completion of this form, should be directed to the Waste Management Specialist at your local DNR regional office.

**Enviro-Safe Resource Recovery Appendix  
V-02 - WDNR Hazardous Waste - SQG  
(US EPA ID No. WIR000142877)**





January 24, 2012

Enviro-Safe Consulting  
Attn: Jeffrey D Vilione  
19395 W Capitol Dr, Ste 201  
Brookfield, WI 53045

DNR FID# 267193300  
HW/CMEL

Dear Notifier:

Below you will find the United States Environmental Protection Agency (U.S. EPA) Identification (ID) number that has been assigned to your installation.

Based upon your submittal of EPA Form 8700-12, the activity at this site is a **Hazardous Waste Small Quantity Generator**

**WIR000142877**  
**ENVIRO-SAFE RECYCLING**  
**W130 N10500 WASHINGTON AVE**  
**GERMANTOWN**

This ID number must be included on all shipping manifest(s) for transporting hazardous wastes and on all correspondence.

Please note the U.S. EPA number is site specific. If your installation changes locations, a new notification is required to obtain a new ID number. If your installation has changed ownership, a subsequent notification must be filed to allow the new owner to use this ID number.

When a change occurs to the information on the form, a subsequent notification must be filed using EPA's RCRA Subtitle C Site Identification Form 8700-12 to update our files before continuing use of the EPA ID#. Form 8700-12 and instructions are available at <http://www.epa.gov/reg5rcra/wptdiv/hazardous/notify.htm>.

If you should have any questions or need further assistance, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Heidi Jasso". The signature is fluid and cursive.

Heidi Jasso  
Environmental Program Associate  
Waste & Materials Management Program  
SER – Milwaukee  
414.263.8678

Cc John Schwabe, Sandy Miller and Ken Hein, DNR Waste Management Specialists

**Enviro-Safe Resource Recovery Appendix  
V-03 - DOT Number (2322446)**



## Confirmation Screen

<b>USDOT Number:</b>	2322446	<b>Company Type:</b>	CARRIER	<b>Status:</b>	ACTIVE
<b>Legal Name:</b>	ENVIRO-SAFE TRANSPORTATION LLC				
<b>Physical Address:</b>	W130 N10500 WASHINGTON DRIVE, GERMANTOWN, WI 53022				

Your Update to MCMIS has been received

Generate MCS-150 

In order to view PDF files, you will need the Adobe® Acrobat® Reader™, a plug-in available from Adobe Systems, Inc.  
You may obtain this free plug-in at: <http://www.adobe.com/products/acrobat/readstep2.html>

June 30, 2022



**Enviro-Safe Resource Recovery Appendix  
V-04 - DOT Hazardous Material  
Registration**

**UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**



**HAZARDOUS MATERIALS  
CERTIFICATE OF REGISTRATION  
FOR REGISTRATION YEAR(S) 2022-2023**

**Registrant:** ENVIRO-SAFE TRANSPORTATION, LLC.

ATTN: Robert Wiedenfeld  
W130 N10500 WASHINGTON DR.  
GERMANTOWN, WI 53022

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

**Reg. No: 061322550039E    Effective: July 1, 2022    Expires: June 30, 2023**

**HM Company ID: 163529**

**Record Keeping Requirements for the Registration Program**

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

- (1) A copy of the registration statement filed with PHMSA; and
- (2) This Certificate of Registration

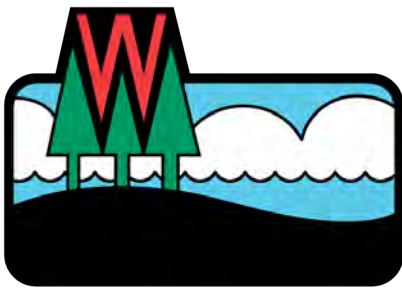
Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-52, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.

**Enviro-Safe Resource Recovery  
Appendix V-05 - WDNR Solid Waste and/  
or Recyclable Transportation Service  
License (License #15810)**





**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
TRANSPORTATION SERVICE LICENSE**

**License Number: 15810**

**TRANSPORTATION SERVICE LICENSE**

**Solid Waste Transporter - General - Solid waste and/or recyclables**

**Truck Count: 6**

Licensee Name: ENVIRO-SAFE CONSULTING LLC

Effective Date: October 01, 2021

Expiration Date: September 30, 2022

**Facility Information**

FID: 267193300

**ENVIRO-SAFE RESOURCE RECOVERY**

W130N10500 Washington Dr

Germantown WI 53022

Washington County (67)

DNR Region: SE

This license authorizes the licensee to operate the transportation service described above during the term specified, and is subject to and conditioned upon compliance with the provisions of chapter 287, and 289, Wis. Stats., and chapters NR 500-590, Wis. Adm. Code. Any exemptions from the requirements of chapters NR 500-590, Wis. Adm. Code, issued for this service are listed above.

**Enviro-Safe Resource Recovery  
Appendix V-06 - WDNR Hazardous  
Waste Transport Service License  
(License #15809)**



**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
HAZARDOUS WASTE TRANSPORT SERVICE LICENSE**

**License Number: 15809**

**HAZARDOUS WASTE TRANSPORT SERVICE LICENSE**

**Hazardous Waste Transporter - Hazardous Waste - PCB**

**Truck Count: 6**

Licensee Name: ENVIRO-SAFE CONSULTING LLC

Effective Date: October 01, 2021

Expiration Date: September 30, 2022

**Facility Information**

FID: 267193300

EPA ID: WIR000142877

**ENVIRO-SAFE RESOURCE RECOVERY**

W130N10500 Washington Dr

Germantown WI 53022

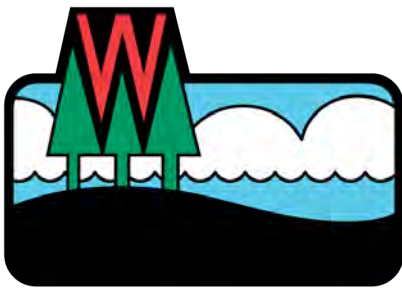
Washington County (67)

DNR Region: SE

This license authorizes the licensee to operate the transport service described above during the term hereof except as modified by the Department. This license is subject to and conditioned on compliance with the provisions of chapters 291 and 292, Wis. Stats., all applicable hazardous waste requirements of chapters NR 660 to 679, Wis. Adm. Code, and the equipment operator qualifications in the U.S. Department of Transportation regulations in 49 CFR 177.816.

The Department may modify or revoke the license during its term, or its issuance or renewal may be denied for grievous and continuous failure of the licensee or equipment operator to comply with the provisions of chapters 291 and 292, Wis. Stats., or the applicable requirements of chapters NR 113, 204 or 660 to 679. This license does not convey any property rights of any sort, or any exclusive privileges. This license does not authorize entry or trespass upon the property of any person.

**Enviro-Safe Resource Recovery  
Appendix V-07 - WDNR Infectious  
Waste Transportation License  
(License #16903)**



**STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
INFECTIOUS WASTE TRANSPORTATION LICENSE**

**License Number: 16903  
INFECTIOUS WASTE TRANSPORTATION LICENSE  
Solid Waste Transporter - Infectious Waste**

**Truck Count: 6**

Licensee Name: ENVIRO-SAFE CONSULTING LLC

Effective Date: October 01, 2021

Expiration Date: September 30, 2022

**Facility Information**

FID: 267193300

**ENVIRO-SAFE RESOURCE RECOVERY**

W130N10500 Washington Dr

Germantown WI 53022

Washington County (67)

DNR Region: SE

This license authorizes the licensee to operate the transportation service described above during the term specified, and is subject to and conditioned upon compliance with the provisions of chapter 287, and 299, Wis. Stats., chapters NR 500-590, Wis. Adm. Code. Any exemptions from the requirements of chapters NR 500-590, Wis. Adm. Code, issued for this service are listed above.

**Enviro-Safe Resource Recovery  
Appendix V-08 - WDNR Storm Water  
Industrial No Exposure Certification  
(FIN No. 54508)**



**State of Wisconsin**  
**DEPARTMENT OF NATURAL RESOURCES**  
Southeast Region Headquarters  
2300 N Dr Martin Luther King Jr Drive  
Milwaukee, WI 53212

**Tony Evers, Governor**  
**Preston D. Cole, Secretary**  
Telephone (414) 263-8500  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



February 2, 2021

Dawn Zellmer  
ENVIRO-SAFE CONSULTING LLC  
W130 N10500 Washington Drive  
Germantown WI 53022

Subject: Industrial Storm Water No Exposure Certification for

Facility: Enviro-Safe Resource Recovery  
Location: W130 N10500 Washington Drive, GERMANTOWN, WI  
FIN: 54508

Dear Facility Representative:

The Department of Natural Resources (Department) has evaluated the No Exposure Certification for Exclusion from WPDES Storm Water Permitting (Form 3400-188) that you recently submitted, and has determined that your facility does not require coverage under an Industrial Storm Water Discharge Permit as specified in subchapter II of NR 216, Wis. Adm. Code. This determination is based upon the information provided by you for your facility on Form 3400-188 stating your belief that the facility qualifies for a “conditional no exposure exclusion” under s. NR 216.21(3), Wis. Adm. Code, and is contingent upon continued satisfaction of the conditions under s. NR 216.21(3), Wis. Adm. Code.

Please be advised that under s. NR 216.21(3)(b)4., Wis. Adm. Code, a No Exposure Certification must be submitted for this facility every five years to maintain the no exposure status with the Department. The **Effective Date** for the No Exposure Certification status is **February 02, 2021**. If the industrial operations change at the facility where industrial activities become exposed to storm water or if the Department determines facility discharges to be significant contributors of pollutants to the waters of the state, the facility may be required to obtain coverage under a General WPDES Industrial Storm Water Discharge Permit. If conditions change where industrial activities become exposed to storm water, it will be your responsibility to notify the Department of the change in the facility’s status.

The Department appreciates your pollution prevention efforts to eliminate sources of storm water contamination at the facility. If you have any questions concerning the contents of this letter, please contact Jamie Lambert at [Jamie.Lambert@wisconsin.gov](mailto:Jamie.Lambert@wisconsin.gov) or (414) 263-8485.

Sincerely,

Jamie Lambert  
Storm Water Management Specialist  
Southeast Region

**Enviro-Safe Resource Recovery  
Appendix V-09 - Village of  
Germantown Conditional Use Permit  
(CUP# 06-15)**

Village of



Germantown

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July 23, 2015

JDV Real Estate Holdings LLC  
Enviro-Safe Consulting LLC  
W130 N10500 Washington Dr.  
Germantown, WI 53022

### CONDITIONAL USE PERMIT

The Village Board of the Village of Germantown at its meeting on July 6, 2015 granted your request for a Conditional Use Permit to allow the development and operation of facility used for the bulk storage and processing of flammable hazardous and non-flammable non-hazardous liquid and solid waste materials pursuant to Section 17.33(3)(a) and (b) of the Village's Zoning Code.

Enclosed is the original copy of the conditional use permit as approved by the Village Board. Please have the copy executed by **all** the appropriate officials (noting that each signature must be notarized) and return it to this office **within 30 days**. Upon receipt of the conditional use permit, I will have the document executed by the appropriate Village officials and recorded with the Register of Deeds in Washington County. I will then forward a recorded copy to you for your files. *The Conditional Use Permit **is not valid** until it has been signed and recorded. Please use **BLACK INK** when completing and signing the document.*

Please note that Section 17.42 (6) of the Municipal Code states that a conditional use permit shall lapse and be void unless the use granted is operational, or substantial construction required to implement such use has been commenced, within one year of the issuance of such permit unless a different time period is established by the Village Board.

If you have any other questions please feel free to call Planner Retzlaff at (262) 250-4735 or this office at (262) 250-4740.

Sincerely,

Timmerly Tamborino  
Deputy Clerk

Enclosures



**CUP #06-15**

Document No.

**CONDITIONAL USE PERMIT**

Document Title

VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN  
CONDITIONAL USE ZONING PERMIT

Whereas the Applicants:

**JDV Real Estate Holdings LLC, Property Owner, Enviro-Safe Consulting LLC, and Enviro-Safe Resource Recovery, Operator**

agree to comply with applicable Codes and Ordinances of the Village of Germantown, Wisconsin, and further agrees that all work done pursuant to the permission granted herewith will conform with the applications and drawings filed with and approvals granted by officials of the Village for the purpose of obtaining this permit.

Now, therefore, this permit is issued to the Applicants to permit the development and operation of facility used for the bulk storage and processing of flammable hazardous and non-flammable non-hazardous liquid and solid waste materials pursuant to Section 17.33(3)(a) and (b) of the Village's Zoning Code.

Name & Return Address:

**Village of Germantown  
P.O. Box 337  
Germantown, WI 53022**

Parcel Identification No:

**GTNV 254-280**

**On the following described property located in the Village of Germantown, Washington County, Wisconsin:**

Lot 33 of Certified Survey Map No. 6396, recorded February 22, 2011, in Volume 48 of Certified Survey Maps on Pages 195 to 199, as Document No. 1273968, being a re-division of Lot 25 of Certified Survey Map No. 6275, located in that part of the Southwest 1/4 and the Northwest 1/4 of the Southeast 1/4 of Section 25, Town 9 North, Range 20 East, in the Village of Germantown, County of Washington, State of Wisconsin.

Tax Key No: 254-280

Address: W130 N10500 Washington Drive

**Pursuant to the following condition(s):**

1. Subject to the additional allowances under Condition No. 8 herein, this permit authorizes the uses, activities and facilities set forth in the conditional use permit application dated March 14, 2011 and the supporting documents and plans made part of the application including: Responses to the requirements of Section 11.071 (dated 3-14-2011); MSI letter and attached Plan of Operation (dated March 14, 2011); the draft SPCC (dated March 2011); Enviro-Safe Consulting LLC "CUP Application Review" letter (dated March 30, 2010); Letter of Intent (dated March 11, 2011); and the site development and building plan set (dated 3-14-2011, unless otherwise revised by a subsequent plan set approved by the Village Planner pursuant to revisions required herein). All of the commitments made by the Applicant in the application and supporting documents cited herein are deemed conditions of approval. This approval includes the same uses and activities conducted in/as part of the proposed 12,573 sqft building expansion shown in the site development and building plans.



2. If the use, activities and/or operation subject of this permit falls out of conformity with the conditions herein, or where there is a change in the nature, character, intensity or extent of the permitted conditional use which causes special problems or harmful effects otherwise associated with the use to be no longer ameliorated or eliminated, or where conditions imposed were anticipated to ameliorate or eliminate harmful effects associated with the use but are insufficient to do so, or for similar cause based upon consideration for the public comfort, safety, and welfare, the conditional use permit may be terminated or modified by the Village Board by the amendment to or addition of conditions after public hearing thereon.
3. All business operations and activities conducted on the property and by Enviro-Safe while in the Village shall meet and continuously comply with the performance standards set forth in Zoning Code section 17.47, including, but not limited to odor, fire and explosive hazards, and water quality protection. In the event of a complaint substantiated by Village staff to the extent that a potential violation of or determination of non-compliance with one or more of the performance standards in Section 17.47 may have occurred or is occurring, the applicant shall be responsible for all costs for and resulting from the Village retaining a third party environmental expert capable of investigating and/or monitoring the site and operation. Said expert shall report its findings to the Village for subsequent use in investigating and enforcing said complaint or potential violation of the "performance standards" found in Section 17.47 of the Zoning Code.
4. The type and amount of material to be stored shall be limited to that which is proposed in the application materials including the documents referenced in Condition #1 herein. Any changes to the type, amount, location, and containers from that presented in the application materials and/or site development and building plans, or, any changes to the methods of storage, dispensing, mixing, or transportation activities shall be reported to the Village Planning Department. Modifications to the approved CUP and/or site and building plans or conditions of said approvals may be required by the Village at that time.
5. Enviro-Safe shall develop a closure plan the same as that which required for solid waste storage facilities under WDNR NR 502.04 and submit said plan to the Village Engineer for review and approval prior to issuance of an occupancy permit, including the submittal of a letter of credit or other financial guarantee acceptable to the Village that ensures removal and/or clean-up of remaining inventory can be accomplished by a third party environmental firm (if necessary) in the unanticipated event the business relocates from or ceases to exist in the Village.
6. The applicant is responsible for obtaining all applicable state, federal or other agency permits and approvals and continuously operating within the requirements and restrictions of said permits and approvals. Copies of all state and federal agency permits issued shall be provided to the Village Fire and Planning Department.
7. The overnight storage of hazardous and non-hazardous materials that are not in a protected controlled environment is prohibited.
8. All General, Operations and Reporting conditions of approval and requirements set forth in DNR approval letter dated April 20, 2015 are hereby adopted as conditions of approval for this conditional use permit.



Conditional Use Permit (CUP) #06-15

JDV Real Estate Holdings LLC/Enviro-Safe Consulting LLC/Enviro-Safe Resource Recovery

Village of Germantown, Germantown, Wisconsin

Page 3 of 4

Granted by the Village Board of the Village of Germantown, Washington County, Wisconsin on the 6<sup>th</sup> day of July, 2015.

*Dean M. Wolter*

Dean M. Wolter, Village President

ATTEST:

*Barbara K. D. Goeckner*  
Barbara K. D. Goeckner, Village Clerk

STATE OF WISCONSIN ) SS  
WASHINGTON COUNTY)

Personally came before me this 9<sup>th</sup> day of July, 2015, the above named Dean M. Wolter, Village President, and Barbara K. D. Goeckner, Village Clerk, to me known to be the persons who executed the foregoing instrument and acknowledged the same.

*Jilline Dobratz*  
{type or print name of Notary on this line}

*Jilline Dobratz*  
{signature of Notary on this line}



Notary Public, State of Wisconsin  
My Commission Expires: 5-21-19



Conditional Use Permit (CUP) #06-15

JDV Real Estate Holdings LLC/Enviro-Safe Consulting LLC/Enviro-Safe Resource Recovery  
Village of Germantown, Germantown, Wisconsin

Page 4 of 4

**ACCEPTANCE OF TERMS AND CONDITIONS BY APPLICANT**

I, Jeff Vilione, authorized representative for Enviro-Safe Consulting LLC, Enviro-Safe Resource Recovery and JDV Real Estate Holdings LLC, hereby accept the terms and conditions set forth in this Permit, and realize that non-adherence to the terms and conditions as stated hereon may result in the revocation of this Permit by the Village of Germantown under Section 17.42 Germantown Municipal Code.

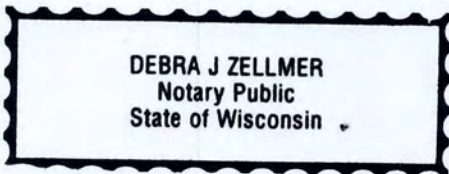
Dated this 30 day of JULY, 2015

JEFFREY D. VILIONE  
{type or print name above}

J.D. VR  
Signature

STATE OF WISCONSIN) SS  
Washington COUNTY)

Personally came before me this 30<sup>th</sup> day of July, 2015, being the above named Jeffrey D. Vilione, to me known to be the person who executed the foregoing instrument and acknowledged the same.



Debra J. Zellmer  
{type or print name of Notary on this line}  
[Signature]  
{signature of Notary on this line}

Notary Public, State of Wisconsin  
My Commission Expires: 8/28/16

This instrument was drafted by:  
Jeffrey W. Retzlaff, AICP  
Community Development Director/Zoning  
Administrator  
Village of Germantown, Wisconsin

# CONDITIONAL USE PERMIT AMENDMENT

6/8/15 Plan Commission Meeting

## Enviro-Safe Consulting LLC / JDV Real Estate Holdings, LLC

Village Planner Report

Germantown, Wisconsin

### Summary

Jeff Vilione, agent for JDV Real Estate Holdings LLC, property owner, and Enviro-Safe Resource Recovery & Enviro-Safe Consulting LLC, is seeking approval of an amendment to Conditional Use Permit #3-11 to include non-hazardous solid waste processing to the list of recycling activities allowed in the existing Enviro-Safe facility located at W130 N10500 Washington Drive in the Germantown Business Park.

**Property Location:** W130 N10500 Washington Drive

**Applicant/**

**Property Owners:**

Jeff Vilione  
Enviro-Safe Consulting  
W218 N5469 Taylors Woods Dr  
Menomonee Falls, WI 53051

-----  
**Current Zoning:** M-1: Limited Industrial

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1



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**Background**

Enviro-Safe Resource Recovery is a multi-disciplinary environmental, safety and resource management and recovery company. Currently, of the services Enviro-Safe provides transportation, collection, bulking (repackaging) and overall recycling services of flammable, combustible, hazardous and non-hazardous liquids, solvents and solid wastes that are redirected to other users in an alternative reuse program.

In May, 2011, the Village Board granted CUP #3-11 (copy attached) that permits Enviro-Safe to operate a facility for the bulk storage of flammable hazardous and non-hazardous liquid materials in the M-1: Limited Industrial Zoning District.

**Proposal**

Jeff Vilione, agent for Enviro-Safe Resource Recovery & Enviro-Safe Consulting LLC, is seeking approval of an amendment to CUP #3-11 to include non-hazardous solid waste processing to the list of recycling activities allowed in the facility.

Under their existing DNR License #4564, Enviro-Safe operates a non-hazardous solid waste transfer station. Enviro-Safe recently received conditional approval to replace the Transfer Station Operation license with a Solid Waste Processing Operation license. The DNR approval and conditions of said approval are contained in a letter dated April 20, 2015 (copy attached). The Operations Plan submitted to the DNR and upon which DNR approval has been granted is also attached (Stantec Report dated March 18, 2015).

As indicated in the Operations Plan report, the proposal to include solid waste processing and change their DNR license from a transfer facility to a processing facility will enable Enviro-Safe to more efficiently process material by being able to co-mingle material from multiple sources before recycling, and, more importantly, expand the volume of material they can process above the current 50 ton per day limit of the current transfer facility license. Enviro-Safe estimates that with approval they could process up to 1,200 tons of solid waste through the facility on an annual basis. The same activities allowed under the Transfer Station Operation license and CUP #3-11 would continue to occur, but the change to a Solid Waste Processing Operation license would enable Enviro-Safe to process more solid waste and in a slightly different manner than what is allowed under the current license.

**Staff Analysis**

The zoning for this parcel in the Business Park is M-1: Limited Industrial. The existing use of and activities conducted within the building, i.e. storage and recycling of flammable, combustible, hazardous and non-hazardous liquid and solid waste, is only allowed with a conditional use permit. As with all CUP uses, the owner/operator must show how the proposed use(s) are or would “...not be hazardous, harmful, offensive or otherwise adverse to the environment or the value of the neighborhood or community”.

Since the operation began in 2012, Enviro-Safe has conducted its business consistent

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with the terms of CUP #3-11 and the operations plan upon which CUP #3-11 was granted.

As indicated in his June 4, 2015 e-mail, Villione indicates that the proposed change is not a significant change to the overall operation. As is the case now, all solid waste processing activities will be conducted inside the building with no changes to exterior of the building or site. No outside storage of equipment or materials is proposed (or permitted) and there will be no new or additional environmental impacts (e.g. noise, odor, heat, glare, air quality, vibration, etc.) associated with this change.

Staff recommends that the DNR general, operational and reporting conditions of approval also be adopted by reference into CUP #3-11 (see DNR letter dated April 20, 2015 pages 5 and 6).

#### **VILLAGE PLANNER RECOMMENDATION**

**APPROVE** an amendment to Conditional Use Permit #3-11 to include non-hazardous solid waste processing to the list of uses and activities allowed in the existing Enviro-Safe facility located at W130 N10500 Washington Drive in the Germantown Business Park subject to the following ADDITIONAL conditions:

1. All General Condition, Operations and Reporting conditions of approval and requirements set forth in the DNR approval letter dated April 20, 2015 are hereby adopted as condition of approval for this permit.

VILLAGE OF GERMANTOWN  
N112 W17001 MEQUON ROAD  
GERMANTOWN, WI 53022  
\*\*\*\*AMENDED\*\*\*\*

MEETING: **PLAN COMMISSION**  
DATE AND TIME: **MONDAY, June 8, 2015 6:30 p.m.**  
LOCATION: **Germantown Village Hall Board Room**

- I. **CALL TO ORDER:** This meeting has been given public notice in accordance with Wisconsin Statutes, Section 19.83 and 19.84 in such form that will apprise the general public and news media of subject matter that is intended for discussion and action.
- II. **ROLL CALL**
- III. **PUBLIC INPUT**
- IV. **APPROVAL OF MINUTES:** May 11, 2015
- V. **NEW BUSINESS:**
  - A. Appleton Sign Company for Milwaukee Laser & Body Aesthetics and SCS, LLC – W189 N11100 Kleinmann Drive. Sign Review Application.
  - B. Jamie Wolski for Mark & Kathyrine L’Heureux – W144 N10378 Raintree Drive. Zoning Permit for Construction of a Residential Fence in a Drainage Easement.
  - C. Jeffrey Vilione for Enviro-Safe Consulting LLC- W130 N10500 Washington Drive. Modifications to Conditional Use Permit #3-11 (to permit Additional Solid Waste Processing Activities).
  - D. Germantown Diamond Club for Steve Dahlke – W172 N13050 Division Road. Conditional Use Permit for an Indoor Recreation Establishment (Indoor Baseball Batting Cages).
  - E. Midwest Assisted Living Partners I, LLC for Equitable Bank SSB – Lot 2 of CSM 6090 Virginia Avenue. Conditional Use Permit for a 32-unit Senior Assisted Living Facility.
- VI. **ANNOUNCEMENTS**
- VII. **ADJOURNMENT**

*UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting. Notice is given that a majority of the Village Board may attend this meeting to gather information about an item over which they have decision making responsibility. This may constitute a meeting of the Village Board per State ex rel. Badke v. Greendale Village Board, even though the Village Board will not take formal action at this meeting.*





Date: March 11, 2011  
To: Village of Germantown - Jeff Retzlaff  
From: JDV Real Estate Holdings, LLC.  
Enviro-Safe Consulting, LLC. – Jeffrey D. Vilione  
Sub: Letter of Intent / Intended Use

Dear Jeff:

This letter is being provided to insure all parties have a full understanding of Enviro-Safe Consulting, LLC. (Enviro-Safe's) intended use for the purchase of the lot located on Washington Drive and South of Bradley Way in the Village of Germantown's Industrial Park. The intended use for the building would include a 10-day Transporters Permit for the transportation of hazardous waste (NR 663 permit to be issued by the Wisconsin DNR), a Solid Waste Storage and Processing Permit for storage and bulking of Non-Hazardous Waste liquid or solid waste (NR 502 permit to be issued by the Wisconsin DNR), a Non-Hazardous Used Oil permit (NR 679 permit to be issued by Wisconsin DNR), a Universal Waste permit (NR 673 permit to be issued by Wisconsin DNR) and the storage of flammable hazardous materials (permit not required by the Wisconsin DNR) for solvents to be used in alternative use programs.

Enviro-Safe is a multidisciplinary environmental, safety and resource recovery company. Enviro-Safe is over nine years old and is currently located in City of Brookfield. The company core clients include medium to large size manufactures throughout the country in the chemical management of raw materials, off-specification products, recoverable by-products, co-products and non-hazardous and hazardous waste. In addition, the company provides regulatory compliance services pertaining to EPA, WDNR and OSHA regulations. Over the past four years, Enviro-Safe has worked closely with the Wisconsin Department of Natural Resources (WDNR) and some of Wisconsin's largest chemical manufactures specifically pertaining to a solvent reuse program. These manufactures generate hundreds of thousands of gallons of "qualified" solvents that Enviro-Safe has re-directed away from the hazardous waste status and into an alternative reuse program. Similar programs would be offered to other manufactures that generate material in smaller quantities. These alternative reuse programs, not only offer options that can re-direct valuable materials, but can help preserve our natural resources. As the company continue into the future and virgin raw material cost continue to increase, many more options are going to be developed for future reuse.

Enviro-Safe has purchased a lot and is considering the construction of a building of approximately 15,000 sq. ft., with 3,000 to 4,000 sq. ft. office space and approximately 11,000 to 12,000 sq. ft. warehouse. The building would be used as a recycling center for the storage and re-distribution of various flammable materials (see attached chemical list), as well as, non-flammable / non-hazardous products and fluorescent lamps and batteries. All flammable containers would be tested for compatibility prior to storage in the warehouse. The container sizes could vary from 5-gallon pails up to 330-gallon steel totes, with 55-gallon steel drums being the most common container size. Once the desired quantity is obtained, typically 6,500 gallons for solvents, the containers would be pumped and transferred to a 6,500 gallon tanker truck and sent to an alternative use program. The State Fire Code will be adhered to and Standard Operating Procedures (SOPs) will be established to ensure the proper management and handling of all materials.

The benefits of this program would include the following:

- Extending the useful life of existing materials that would otherwise be looked upon as waste;





## Environmental and Safety Consultants / Engineers

[www.enviro-safe.com](http://www.enviro-safe.com)

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- Preserving of our natural resources such as coal, natural gas, and oil through recycling activities;
- Reduction of non-hazardous waste and / or products that could be landfilled;
- Benefit the environment by offering other viable recycling options not presently offered;
- Increase in professional employment within the Germantown area;
- Provide a Leadership in Energy and Environmental Design (LEED) Building

If you have any questions or need anything further, please feel free to contact me.

Sincerely,  
Enviro-Safe Consulting, LLC.

Jeffrey D. Vilione  
President



Date: 11/21/09  
To: Village of Germantown  
Attn: Jeff Retzlaff  
From: Jeff Vilione  
Subject: Potential Flammable Chemical List

Listed below is a comprehensive list of flammable chemicals. Enviro-Safe's intended use for these chemicals, if qualified for an alternative use program, would be to reuse these solvents or solvent mixtures in another application for industry. These solvents would be stored in either 55 gallon steel drums or in 275 gallon steel totes. These materials would then be pumped and transferred into a 6,500 gallon tank truck to be used for another application. The NFPA standard would classify these solvents as a Class IB or Class 1C.

Aliphatics	Aromatics	Alcohols	Ketones	Chlorinated	Esters
Hexane	Xylene	Methanol	Acetone	Methylene Chloride	Methyl Acetate
Cyclohexane	Toluene	Isopropanol	MEK	111 Trichloroethane	Isopropyl Acetate
Heptane	Ethyl Benzene	n-Butanol	MAK	Carbon Tetrachloride	Ethyl Acetate
VM&P		Amyl Alcohol	Cyclohexanone	Ethylene Dichloride	Butyl Acetate
90 Solvent		Isobutanol	Methyl Isobutyl Ketone	Trichlorethylene	Propyl Acetate
Mineral Spirits		Cyclohexanol		Perchlorethylene	Isobutyl Acetate
140 Solvent		Ethanol			Amyl Acetate
Lacolene		n-Propanol			Dibasic Ester
Cypar		Methyl Amyl Alcohol			Glycol Ether EB Acetate
					Glycol Ether DE Acetate
					Glycol Ether DB Acetate



**Environmental and Safety Consultants / Engineers**

[www.enviro-safe.com](http://www.enviro-safe.com)

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### **Typical Non-Flammable Waste**

- Latex Paints
- Water Base Inks
- Water Base Products
  - Anti-Freeze
  - Ethylene Glycols
  - Propylene Glycols
  - Glues / Adhesives
  - Pharmaceuticals
  - Cosmetics
- Used Oils / Oily Debris
  - Filters
  - Offset Paste Inks
- Consumer Commodity
  - Off-Spec Products



**Village of**  
[REDACTED]  
**Germantown**  
*Willkommen*

Fee must accompany application

\$1460 Paid \$ Date 3-14-11

**CONDITIONAL USE PERMIT APPLICATION**

Pursuant to Section 17.42 of the Municipal Code

Please read and complete this application carefully. All applications must be signed and dated.

**1** **APPLICANT OR AGENT** for JDV  
MSI GENERAL CORP. Eric Newmann  
40 ENVIRSAFE CONSULTING, LLC  
P.O. Box 7  
Oconomowoc, WI 53066  
Phone (414) 333-6800  
Fax (262) 367-7390  
E-Mail eric@msigeneral.com

**PROPERTY OWNER**  
JDV Real Estate Holdings, LLC  
19395 W. Capitol Drive, Suite 200  
Brookfield, WI 53045  
Jeff D. Viliore  
Phone (262) 613-5906  
Fax 262-790-2560  
email: jviliore@envirosafe.com

**2 TO WHOM SHOULD THE PERMIT BE ISSUED?**  
JDV Real Estate Holdings, LLC  
c/o EnvirSAFE Consulting LLC

PROPERTY ADDRESS	TAX	KEY NUMBER
<u>TBD - Washington Street</u>	<u>Bradley Way</u>	
	<u>See attached</u>	

**4 DESCRIPTION OF EXISTING OPERATION**  
 Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages if necessary.  
See attached Lot 33

**5 DESCRIPTION OF PROPOSED OPERATION**  
 Write the name of the proposed conditional use exactly as it appears in the Municipal Code.  
See attached

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.  
See attached \$ Plan Commission Package



**6 METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY - REQUIRED**

Attach pages as necessary

L See

**7 SUPPORTING DOCUMENTATION:**

- Site Plan and elevations for new construction (can be conceptual)
- Photos of existing use and/or proposed use operating elsewhere
- attached business description
- attached Village Questions & responses

**8 READ AND INITIAL THE FOLLOWING:**

*EM* EM understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

*EM* EM I will notify the Village if any aspects of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

*EM* EM I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

**9 SIGNATURES - ALL APPLICATIONS MUST BE SIGNED BY OWNER!**

*[Signature]* 3/10/11 *[Signature]* 3/11/11  
 Applicant Date Owner Date



Design Build  
Since 1957

March 14, 2011

Mr. Jeff Retzlaff  
Village Planning & Zoning  
Village of Germantown  
P.O. Box 337  
Germantown, WI 53022

RE: Enviro-Safe Consulting, LLC  
Site Plan Submittal & C.U.P. update  
MSI General Project #4265

Dear Jeff:

We are submitting the complete Site Plan Review Package for Enviro-Safe Consulting's proposed facility on Washington Drive, as well as the needed information for our Conditional Use application. These submittals come to you after our numerous meetings and discussions regarding this project and believe are consistent with the direction we have been given by the Village.

We need to track a strict review and approval sequence in order to assist the owner in a land purchase and construction by this spring. We realize that the anticipated approval schedule is subject to receiving approvals and having sufficient detail provided as to not warrant an additional or delayed meeting. It is therefore our intention to provide updated information should you find the original submission lacking in any area. We will also follow up quickly after the various meetings with additional information or back-up as required or suggested from those meetings. Please see our proposed timing schedule as listed below:

- Submit to Village the site plan and conditional use package on March 14, 2011.
- Attend plan commission meeting April 11, 2011 for conditional use and site plan review.
- If C.U.P is recommended, and the Site Plan is approved by plan commission, then it is our assumption that we will be at the Village Board Meeting for the public hearing on the conditional use on April 18, 2011, as it was discussed at our previous meeting that the Village would dual track the plan commission and public hear announcements based on the last submittal and previous plan commission approval and recommendation to Village Board.

After review of the schedule, if you have any questions regarding our logic behind this, we would be happy to discuss this with you in person or via telephone.

MSI General

Corporation

P.O. Box 7

Oconomowoc

Wisconsin

53066

262.367.3661

Fax 262.367.7390

[www.msigeneral.com](http://www.msigeneral.com)

Single Source  
Responsibility™



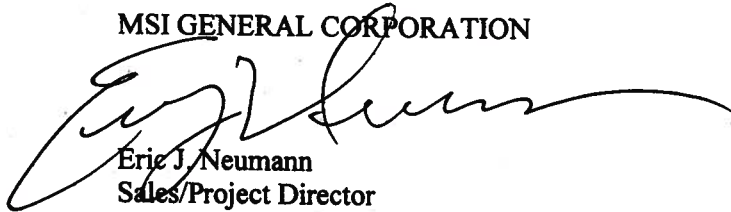
Mr. Jeff Retzlaff  
Village of Germantown  
Site Plan Submittal – Enviro-Safe #4265  
March 14, 2011  
Page 2 of 2

Included with the cover letter are the site plan application and the site plan submittal package including a short plan of operation sheet that we have prepared for the site plan review process. We have also assembled answers to the above ground storage tank zoning code items for the conditional use application already on file.

We appreciate all the efforts from yourself and the Village with this project to this point and look forward to continuing the process with these formal submittals. After review of the attached submittal package, if there are any additional questions you have regarding it or our intentions, please feel free to contact me as soon as those arise so that we can answer questions or provide additional detail.

Most sincerely,

MSI GENERAL CORPORATION

A handwritten signature in black ink, appearing to read "Eric J. Neumann", is written over the typed name and title.

Eric J. Neumann  
Sales/Project Director

EJN:iek

Enclosures

c: Jeff Vilione  
Don Frost

**ENVIRO-SAFE CONSULTING, LLC**  
**PLAN OF OPERATION – ADDITIONAL DETAILS & SITE PLAN**

**Dated March 14, 2011**

**Number of Employees:**

The employee count for the building, including on and off site personnel, would be in the range of 10-12 at the initial point of occupancy.

**Hours of Operation:**

Hours of Operation are between 6 a.m. and 6 p.m. Monday through Friday, however there will be opportunities where earlier opening or later working hours will be needed and the possibility of some weekend work as well. For the most part Enviro-Safe is a single shift operation but special circumstances arise as do in any other business.

**Site Plan:**

The plan submitted shows the access point for the truck and tanker area separated from the parking lot. The initial meeting with the Germantown Village Engineering Staff recommended the use of an oil/water separator or storm sceptor to be used to collect and filter stormwater from the area of the truck docks and maneuvering areas directly West of the docks. The plan we provided includes those areas being drained to a storm sceptor. The docking area also shows plans for a proposed exterior covered canopy area and a weir structure for exterior tanks for storage and dispensing of materials.

**Office Parking:**

The parking plan for employees and visitors includes twenty-seven (27) parking stalls. This is based on the needs of the employee count for this operation and was requested by the Owner. Our site allows room an additional forty-seven (47) stalls without significant impact on the site plan. Due to needs of this business, we wish to limit the hard surface area to only that which is needed. We ask for the approval of the parking lot to be different than the code required for parking which is based on square footage of office, warehouse and production space.

**Floor Plan:**

The floor plan shows the various functions of the building including the office layout – showing the private offices and cubicles, a small lab area for testing of compatibility and arrangement of the non-regulating materials being brought into the site/building. Next to the office is a warehouse of approximately 8,000 s.f. for storage of non-regulated materials that will be classified and stored for proper disposal and recycling. Please note this storage area has been arranged to have an 18” aisle between pallets (at the request of Brionne Bischke) in order to allow individual inspection of the barrels for leakage, reading of labels and identification for storage and safety purposes. The entire floor of this area will be recessed by approximately 6” to handle not only spills but a twenty minute sprinkler discharge volume. This room will be classified as S-1 by Wisconsin Department of Commerce Code.

Adjacent to the non-regulated room is the storage room of flammable and combustible materials. This room will be classified as a H3 occupancy. We have arranged spills and piles to meet code and provide spacing as requested by the Germantown City Engineer. Next to the storage room is the dispensing room. This room will have an H2 classification. The room will also have blowout panels on the North wall. This room is where the dispensing will take place. Materials will be dispensed into a tanker via a suction tube from the tanker which will be transporting these materials to the next use location. Part of building design would have parapet walls to screen roof top HVAC equipment.

## **Statement of Design Intent & Building Elevations**

We modeled the building to match the zoning regulations of the Village of Germantown and blend in with the architecture using the surrounding buildings in this park. We have worked with a member of the plan commission to garner his comments on design and have incorporated those into our submittal elevations. The use of various materials including masonry, metal trims/accent panels, aluminum framing and glass not limited to but including landscaping and the blending in to the natural grade of the site to provide screening have been planned and represented in the attached submittal. Earth tones and more natural colors have also been incorporated as well as the architectural style suggest for the park.

### **Miscellaneous Items of Importance:**

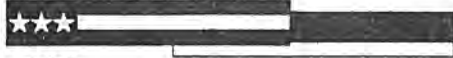
- The plan shows the canopy on the west side of the building that will be used for unloading and dispensing of all types of materials that could enter the building.
- We have tied the tank area to the canopy by means of a manifold piping system which is detailed on our submittal plans.
- We have provided elevations and details of the tanks and the piping scheme for them.
- We will understand and will comply with all village code with regards to fire protection and drainage of the exterior tank area. These include the control valve for storm water and foam sprinkler systems.

As you can see by the level of detail provided for both for the site plan submittal and the conditional use application, the team assembled for this project has the experience and expertise to build this building to comply with all applicable regulations. We also acknowledge there could be items that arise after the next level of review takes place. It is our hope based on the efforts we have provided to you at this point and the level of seriousness we have represented that those items could be resolved without delaying the review process for this project. If there are critical items to approve the project or for approval of the conditional use, we would ask that those could be brought to our attention as soon as possible so that any concerns are addressed or additional information is provided. As we are all aware, there are many things that will have to happen after we receive the various approvals in order to gain our permits to begin the project and we ask for the opportunity to complete those items at that time.

**Enviro-Safe Resource Recovery  
Appendix V-10 - Village of Germantown  
Certificate of Occupancy - Permit  
053-12 (Issued August 14, 2012)**



Village of



Germantown

Willkommen

BUILDING INSPECTION DEPARTMENT

N112 W17001 Mequon Road P.O. Box 337

Germantown, Wisconsin 53022-0337

Phones (414)250-4760

FAX (414) 253-8255

CERTIFICATE OF OCCUPANCY

BUILDING PERMIT # 053-12

VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN. August 14, 2012


ISSUED TO MSI General Corp./Enviro-Safe Consulting

PERMISSION IS HEREBY GRANTED TO OCCUPY THE New Construction

LOCATED AT W130 N10500 Washington Drive

TO BE USED FOR Office & Warehouse

AS PROVIDED FOR IN THE BUILDING ORDINANCE OF THE VILLAGE OF GERMANTOWN.

  
\_\_\_\_\_

FIRE INSPECTOR

  
\_\_\_\_\_

INSPECTOR OF BUILDINGS

**Enviro-Safe Resource Recovery  
Appendix V-11 - Village of Germantown  
Certificate of Occupancy - Permit  
20GRM-B00040  
(Issued November 16, 2021)**



# CERTIFICATE OF OCCUPANCY

## Germantown

This certificate is issued pursuant to the requirements of the adopted building code, certifying that at the time of issuance this structure was in compliance with the various ordinances of Germantown regulating building construction and use.

**Site Address:** W130N10500 Washington Drive,  
Germantown, WI 53022

**Building Permit #:** 20GRM-B00040

**Permit Type:** Commercial Addition

**Owner Name:** JDV REAL ESTATE HOLDINGS

**Parcel Number:** GTNV-254271

**Lot:**

**Owner Address:** W130N10500 Washington Drive,  
Germantown, WI 53022

**Block:**

**Type of Construction:**

**Subdivision:**

**Occupancy:** B

**Zoning District:**

**Code Edition:** 2016 2016 1 & 2 Family  
UDC with Wisconsin  
Amendments

**Building Official:** Allan Schmuck

**Auto Sprinkler Required:** No

**Auto Sprinkler Provided:** No

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For Germantown - 11/16/2021

**APPENDIX W: APPENDIX INTENTIONALLY LEFT BLANK**

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APPENDIX X: LOADING/UNLOADING PROCEDURE FORM

# Bulk Loading/Unloading Procedures



## Loading/Unloading Procedures

All transporters must meet the minimum requirements and regulations for tank truck loading/unloading established by the U.S. Department of Transportation (DOT). Procedures will be established so that the transporter understands the site layout, knows the protocol for entering the site and unloading/loading procedures, and has the necessary equipment to respond to a discharge from the vehicle, hose or its attachments.

A representative from the company must be present and supervisor all deliveries or outbound shipments. Vehicle/equipment filling operations are performed by operating personnel trained in proper discharge prevention procedures. The driver must remain with the vehicle at all times and assist during transferring operations under the direction of the site's operating personnel. Transfer operations are performed according to the minimum procedures outlined in the table below.

Task Description	Procedures
Prior to Loading/Unloading	<ul style="list-style-type: none"> <li>△ Visually check all hoses for leaks and wet spots.</li> <li>△ Verify that sufficient volume is available in the container, storage tank or tanker vehicle.</li> <li>△ Confirm that the receiving container, storage tank or tanker vehicle is free of any potentially incomputable material.</li> <li>△ Secure the tank vehicle with wheel chocks and interlocks.</li> <li>△ Verify that the vehicle's parking brakes are set.</li> <li>△ Verify proper alignment of valves and proper functioning of the pumping system.</li> <li>△ Establish adequate bonding/grounding prior to connecting to the transfer point.</li> <li>△ Turn off cell phone.</li> </ul>
During Loading/Unloading	<ul style="list-style-type: none"> <li>△ Driver must stay with the vehicle at all times during loading/unloading activities.</li> <li>△ Designated facility personnel should observe the driver during loading/unloading.</li> <li>△ Periodically inspect all systems, hoses and connections.</li> <li>△ When loading, keep internal and external valves on the receiving tank open along with the pressure relief valves.</li> <li>△ When making a connection, shut off the vehicle engine. When transferring Class 3 materials, shut off the vehicle engine unless it is used to operate a pump.</li> <li>△ Maintain communication with the pumping and receiving areas.</li> <li>△ Monitor the liquid level in the receiving storage tank or tanker vehicle to prevent overflow.</li> <li>△ Monitor flow meters to determine rate of flow.</li> <li>△ When topping off the storage tank or tanker vehicle, reduce flow rate to prevent overflow.</li> </ul>
After Loading/Unloading	<ul style="list-style-type: none"> <li>△ Make sure the transfer operation is completed.</li> <li>△ Close all tank and loading valves before disconnecting.</li> <li>△ Securely close all vehicle internal, external, and dome cover valves before disconnecting.</li> <li>△ Secure all hatches.</li> <li>△ Disconnect grounding/bonding wires.</li> <li>△ Ensure the hoses are drained to remove the remaining liquid before moving them away from the connection. Use a drip pan or bucket.</li> <li>△ Cap the end of the hose and other connecting devices before moving them to prevent uncontrolled leakage.</li> <li>△ Remove wheel chocks and interlocks.</li> <li>△ Inspect the lowermost drain and all outlets on tanker vehicle prior to departure. If necessary, tighten, adjust, or replace caps, valves, or other equipment to prevent leaking while in transit.</li> <li>△ Ensure all storage tank valves are closed and secure.</li> </ul>

**Transporter:** \_\_\_\_\_ **Action:**     Loading     Unloading    \_\_\_\_\_  
**Site Operator:** \_\_\_\_\_ **Date:** \_\_\_\_\_