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FEASIBILITY AND PLAN OF OPERATION REPORT

PREPARED FOR:

BRENNTAG GREAT LAKES, LLC
N59 W14706/N59 W14776 BOBOLINK AVENUE
MENOMONEE FALLS, WISCONSIN 53051

SPECTRUM ENGINEERING INCORPORATED

19395 West Capitol Drive, Brookfield, Wisconsin 53045
262-783-7725 • FAX 262-783-7726

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June 6, 2013

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INTRODUCTION

Brenntag Great Lakes, LLC (Brenntag), operates a licensed Hazardous Waste Storage Facility at N59 W14706 Bobolink Avenue in Menomonee Falls. This site was previously owned and operated by the MILSOLV Corporation. MILSOLV was issued an initial hazardous waste operating license on September 28, 1990. The license was renewed on September 30, 2003. A Federal RCRA Permit was issued on December 9, 2003 when the Wisconsin Department of Natural Resources (WDNR) re-issued operating licenses for storing hazardous waste in containers and tanks, and treating hazardous waste in containers and tanks. These licenses are effective for a 10-year period, which ends on December 9, 2013. In order to continue operation of the facility past this date, Brenntag is required to submit the Part A Application Form and the Feasibility and Plan of Operation (FPOR) report 180 days prior to the license expiration date, or by June 9, 2013.

This updated (FPOR) describes the existing operations at the facility, which have not changed significantly since the permit was re-issued in 2003. However, since that time, there have been changes to the Hazardous Waste regulations in the Wisconsin Administrative Code. Under the latest revisions to these regulations, fuel blending operations are no longer exempt from hazardous waste licensing requirements. As a result of the code revisions in 2007, the FPOR was revised to include a new Section 7, which provided the necessary updates for the fuel blending operations. With this license renewal, Brenntag plans to begin partial closure of some of the equipment that is no longer used at the facility and has also reformatted the FPOR to match the revised NR 600 code sections and format requirements included in the 2007 code revision.

This plan has been organized according to the ***Wisconsin Department of Natural Resources, Hazardous Waste License Application (FPOR), Completeness and Technical Evaluation Checklist***. The applicable code sections are noted in the Table of Contents and in each of the major section headings. A copy of the WDNR checklist is provided in Appendix X of this plan. This plan includes the following sections:

PART 1 – GENERAL REQUIREMENTS

- Section 1A – General Requirements
- Section 1B – Non-Compliance with Plans or Orders
- Section 1C – Environmental Impact Review
- Section 1D – Groundwater Protection
- Section 1E – Corrective Action and Solid Waste Management Units
- Section 1F – Location Standards
- Section 1G – Waste Analysis Plan Requirements
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PART 2 – UNIT SPECIFIC REQUIREMENTS

- Section 2A – Container Standards - Inspections
- Section 2B – Container Standards – Containment
- Section 2C – Container Standards – Incompatible, Reactive, Ignitable Wastes
- Section 2D – Tank Standards - General
- Section 2E – Tank Standards - Inspections
- Section 2F – Tank Standards – Existing Tanks
- Section 2G – Tank Standards – New Tanks
- Section 2H – Tank Standards – Secondary Containment
- Section 2I – Tank Standards – Ignitable, Reactive and Incompatible Wastes
- Section 2J – Standards for Miscellaneous Units – Storage and Treatment
- Section 2K – Subchapter AA – Air Emission Standards for Process Vents
- Section 2L – Subchapter BB – Air Emission Standards for Equipment
- Section 2M – Subchapter CC – Air Emission Standards for Containers and Tanks

Supporting documentation, reports, and drawings are provided in the appendices.

Questions regarding this document can be referred to one of the following individuals:

Judy Ninke
Mgr. of Solvent Reclamation Facility
Brenntag Great Lakes, LLC
P.O. Box 444
Butler, Wisconsin 53007
Phone: (262) 252-6164
Fax: (262) 252-6170
Email: jninke@brenntag.com

Renee Smits, P.E.
Vice President
Spectrum Engineering Incorporated
19395 West Capitol Drive
Brookfield, Wisconsin 53045
Phone: (262) 783-7725
Fax: (262) 783-7726
Email: r.smits@spectrumengineeringinc.com

Jeffrey M. Noll, P.E.
Senior Project Manager
Spectrum Engineering Incorporated
19395 West Capitol Drive
Brookfield, Wisconsin 53045
Phone: (262) 783-7725
Fax: (262) 783-7726
Email: j.noll@spectrumengineeringinc.com

Section 1A
GENERAL REQUIREMENTS (NR 670.010-NR 670.014)

1A.1. Two copies of license application submitted per (NR 670.010(1)).

In accordance with NR 670.010(1), two (2) complete copies of the Hazardous Waste Permit Application – Part A, have been prepared and included with this FPOR submittal. An additional copy of the Part A application has been included in Appendix A for reference. As directed by the WDNR, two (2) hard copies and one (1) electronic copy of this Feasibility and Plan of Operation Report are being submitted to the Wisconsin DNR along with one (1) electronic copy to the USEPA.

1A.2. Plan review and License Fees (NR 670.010(12)).

In accordance with NR 670, Appendix II Hazardous Waste Fee Table, the applicable Document Review and License Fees for Containers and Miscellaneous Units will total $4,000 for review of the FPOR and re-issuance of the operating license for the existing Brenntag facility. Brenntag has been directed by the WDNR to submit this fee after a Final Determination has been issued and upon receipt of an invoice from the WDNR.

1A.3. Report Signature (NR 670.011(1))

The report signature is included in Section 1A.4. as part of the Certification Statement. The Review and Certification of the Feasibility and Plan of Operation Report by a P.E. is included in Appendix Y.

1A.4. Certification Statement (NR 670.011(4))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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.

Name: Kevin Bagin **Title:** Vice President, Operations

Signature: [signature] **Date:** June 4, 2013

1A.5. Claims of Confidentiality (NR 670.012)

Brenntag does not have any claims of Confidentiality.

1A.6. Pre-Application Meeting Documentation (NR 670.014(2)(v))

Under NR 670.007(1)(c), NR 670.014(2)(v) and Subchapter M, NR 670.431(1) & (2), Brenntag is required to hold at least one (1) public meeting in order to solicit questions from the community and inform the community if any "significant" changes are being made to the facility as part of the license renewal. Since Brenntag is not planning on making "significant" changes in facility operations, requirements for a pre-application and public meeting, would not apply. The WDNR confirmed this in an e-mail to Spectrum Engineering, dated 1/7/13.

1A.7. Local Approval Requirements (NR 670.014(2)(w))

Brenntag previously submitted written requests for local approval to the Village of Menomonee Falls and Waukesha County. The municipalities received the requests on October 7, 1999. The State of Wisconsin Waste Facility Siting Board received copies of the requests on October 15, 1999. Copies of these historical documents are included in Appendix N.

Under NR 670.007(1), Brenntag is required to notify local municipalities to determine if any new or additional requirements apply to the facility; receive confirmation from the municipality that Brenntag is complying with any local requirements; and, determine if a waiver from local approval requirements will be issued. Brenntag issued letters to the Village of Menomonee Falls – Village Clerk and to the Waukesha County Clerk and has received a favorable response letter from each municipality. Copies of the original letter along with the response letters and Certified Mail receipts are included in Appendix N.

The law allows an affected municipality to participate in the negotiation process if the governing body adopts a siting resolution and appoints members to the local committee within 60 days after the municipality receives written requests by the applicant.

Responses from both the Village of Menomonee Falls and Waukesha County indicate that they have no new requirements that Brenntag would need to comply with as part of their license renewal process.

1A.8. Part A Application (NR 670.013)

Brenntag operates a licensed hazardous waste storage and treatment facility. Hazardous wastes are stored in containers inside a building and in tanker trucks. The storage activities are subject to the requirements of Chapter NR 664 and 670 of the Wisconsin Administrative Code. The treatment operations, which consist of fuel blending, are subject to the regulations issued in August of 2006.

The Hazardous Waste Permit Application – Part A, contains all of the information required by NR 670.013 subs. (1) through (14) and is included in Appendix A for reference.

1A.9. Technical Data Certification by P.E. (NR 670.014(1))

The Review and Certification of the Feasibility Plan of Operation Report by a P.E. is included in Appendix Y. Technical data documents and drawings related to the FPOR have been included in various Appendix sections of this report. Since the facility is existing and no new construction is planned for re-issuance of the operating license, all technical data and drawings have the appropriate P.E. Certifications where they were required at the time of their original preparation. Any documents lacking a P.E. Certification were not required to have one at that time and have already been approved by the WDNR, as they were included in the previously approved FPOR and operating license for this facility.

1A.10. General Description of Facility (NR 670.014(2)(a))

Brenntag operates a hazardous waste storage and treatment operation at N59 W14706 Bobolink Avenue in Menomonee Falls. Brenntag's EPA Identification Number is WID023350192. This site was previously owned and operated by the MILSOLV Corporation. It is located on Lots 1 and 2 of Block 2 of the Bowling Green Industrial Park. The properties are part of the South One-half of the Northeast Quarter and part of the North One-half of the Southeast Quarter of Section 26, Township 8 North, R 20 East in the Village of Menomonee Falls, Waukesha County, Wisconsin. The site is 2.1 acres in size and is surrounded by properties that are zoned for heavy and light industrial use. There are single-family residential areas within ½ mile to the north and within ½ mile to the southwest. Oakwood Primary School is located approximately ½ mile to the southeast. There is a conservancy/wetland within ½ mile to the south. The Village of Menomonee Falls Fire Department Station No. 2 is located approximately ½ mile to the south. A Zoning Map for the Village of Menomonee Falls is provided in Appendix T along with a site survey of the property.

On the property, Brenntag operates a Drum Storage and Processing Building that was designed and constructed for storage of flammable materials. Drum storage and processing is conducted inside a building. Containers are unloaded at the loading docks. Bulk tanker transfers are conducted in a contained area directly west of the Tank Farm. The Tank Farm previously held ten (10) licensed hazardous waste storage tanks of varying sizes along with six (6) additional reclaim tanks. Brenntag has partially closed the facility and no longer uses the ten (10) previously licensed tanks, therefore, they have been eliminated from this Part A Application and FPOR.

1A.11. Prevention of Unloading Operations Hazards (NR 670.014(2)(h)1.)

Unloading operations consist of unloading closed containers (including drums and totes), as well as conducting tanker to tanker transfers in the unloading area. Brenntag utilizes LP-S Rated forktrucks to eliminate any electrical hazards during unloading operations. Electrical power wiring in the building is Classified as Class I, Div. II with explosion-proof light fixtures throughout. Standard mechanical edge-of-dock levelers are used for forktruck access into box trailers during unloading of drums or totes.

1A.12. Prevention of Runoff and Flooding (NR 670.014(2)(h)2.)

The site is designed to divert surface water run-on away from the tanker transfer area. This area is surrounded by containment dikes and berms. Storm water collected from the tanker unloading area is collected and shipped off-site as non-hazardous waste.

Brenntag's storm water runoff from the non-active portions of the site drains as sheet flow to drainage ditches surrounding the site. The drainage ditches on Bobolink Avenue discharge to Lilly Creek. This water does not come in contact with waste transfer and processing operations; and therefore, it should comply with water quality standards in NR 102 through 104. A Storm Water Drainage Map is included in Appendix T.

The Brenntag property is not located in a wetland or in a floodplain. The 100-year flood inundation line is shown on the Topographic Map of the Southeast ¼ of Section 26, Township 8 North, Range 20 East, which is provided in Appendix T.

1A.13. Prevention of Contamination of Water Supplies (NR 670.014(2)(h)3.)

Brenntag's hazardous waste storage facility is designed, constructed and operated in a manner to minimize the potential for groundwater contamination. The drum storage operations are located inside a building, which has a concrete floor. All control and construction joints in the floor and in the truck unloading pad outside have waterstops and concrete sealant material. The floors are sloped to direct spills to collection trenches. The doorways are ramped to prevent spills from exiting the building. The spill collection trenches drain by gravity to conveyance piping which is connected to an outside aboveground spill collection tank.

Arcadis has prepared a Corrective Action Plan (CAP) for the site. A copy of the CAP is included in Appendix P. According to the CAP, the site is serviced by municipal water supply and sewerage systems. Three water supply wells are located on the site, and several non-potable water supply wells are located on adjacent properties. Water supply wells locations are shown on Figure 2 of the CAP. The facility and surrounding properties had been previously serviced by these private supply wells. The area has been converted to the municipal water supply system. The private wells remain in place, and are sampled to evaluate groundwater quality.

1A.14. Mitigation of Equipment Failures or Power Outages (NR 670.014(2)(h)4.)

Electricity to the facility is supplied by WE Energies. The electricity to the entire plant can be shut off at the Main Electrical Panel on the west wall of the Maintenance Shop. There are also panels on the north wall of the Maintenance Shop to shut down the electricity in various areas of the plant.

The areas that remain in operation at the facility include the Tanker Unloading Containment, the Spill Collection Tank, the Drum Storage Room, and the Drum Processing Room. The Drum Storage Room and Drum Processing Room are equipped with emergency lighting. There is no other electrical equipment associated with the hazardous waste operations that would be affected by a power outage or equipment failure.

1A.15. Prevention of Employee Exposure (NR 670.014(2)(h)5.)

A copy of Brenntag's Training Manual is provided in Appendix G. The Training Manual provides a description of the training and personal protective equipment provided to each type of employee.

1A.16. Prevention of Releases to Atmosphere (NR 670.014(2)(h)6.)

Brenntag is a Minor Source of air emissions. The primary pollutant emitted from the facility is volatile organic compounds (VOC). Drums remain closed at all times, except when waste is being sampled, or material is being added or removed from the drum.

Brenntag is also subject to the air emission standards in NR 664 Subchapter CC. Compliance documentation for this standard is included in Appendix I.

An Air Emission Inventory Report is prepared and submitted to the WDNR on an annual basis.

1A.17. Traffic Patterns, Volume, Control and Road Surface/Bearing Capacity (NR 670.014(2)(j))

Waste arrives at the Brenntag facility in bulk shipments delivered by tank trucks and in containers (typically 55-gallon drums) which are delivered by enclosed box trailers. The maximum weight of a vehicle and the waste is 80,000 pounds (40 tons). The site is accessed from Bobolink Avenue, which is only accessible from Lilly Road. According to the Village of Menomonee Falls Engineering Department, there are no weight restrictions on these roads. Figure G-2 in Appendix T shows the number of vehicles on site, access routes and traffic flow patterns. Entrance into the plant is normally immediate and is almost exclusively from the east direction on Bobolink Avenue since west on Bobolink Avenue is a dead end. Exit from the plant requires crossing a traffic lane, however, since the facility is located within an industrial park, exposure to public traffic is minimal.

1A.18. Chemical and Physical Analysis of Hazardous Waste (NR 670.014(2)(b))

A copy of Brenntag's Waste Analysis Plan is provided in Appendix E.

1A.19. Chemical and Physical Analysis Contains Required Information (NR 670.014(2)(b))

A copy of Brenntag's Waste Analysis Plan is provided in Appendix E.

1A.20. Justification of Waiver from Preparedness and Prevention (NR 670.014(2)(f))

Brenntag meets the Preparedness and Prevention requirements listed in NR 664 Subchapter C as follows:

Facility Design and Construction

Brenntag's Drum Storage and Processing Building was designed and constructed for storage of flammable materials. It is maintained and operated to minimize the possibility of fire, explosion or other sudden or nonsudden discharge of hazardous waste or hazardous waste constituents to the air, land, or surface waters which could be harmful to human health or the environment.

Drum storage is conducted inside a building. Any spills in the building are directed to spill collection trenches. These trenches drain to an outdoor spill collection tank. The building is designed for flammable liquid storage in accordance with NFPA. There is a 4-hour fire wall between the drum storage area and the other areas of the building. Smoking is prohibited in this building.

Containers are unloaded at the loading docks or inside the Bulk Tanker Containment area. These areas have an impervious concrete base. The loading docks are fitted with dock levelers to prevent accidents while unloading containers. Each dock door is ramped, sloping into the building, to divert any releases of material into the spill collection trenches.

Smoking is prohibited in all parts of the facility.

Emergency Equipment

Brenntag has the following emergency equipment on site:

- Telephones
- Internal Paging System
- Portable Fire Extinguishers
- Shovels and Absorbent Materials
- Eye Wash Stations
- Respirators, Goggles and Protective Clothing
- 6,500-gallon Vacuum Truck

The Drum Storage and Processing Building has a sprinkler system.

Additional information on the emergency equipment is provided in the Contingency Plan included in Appendix F, Exhibit M.

Access to Communication Devices

Personnel have immediate access to internal and external communication devices. A drawing showing the locations of the emergency equipment, including communication equipment, is provided in the Contingency Plan.

Equipment Testing and Maintenance

All facility communication systems, fire protection equipment, spill control equipment is tested and maintained to ensure its proper operation during an emergency.

The paging system is tested daily. The alarm systems are tested annually. Fire protection equipment is inspected and tested annually.

The condition of the safety equipment and the supply of spill control materials are inspected on a daily basis by Brenntag personnel.

Aisle Space

Aisle space is maintained in the Drum Storage and Processing Building to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of the facility in an emergency.

Arrangements with Local Emergency Responders

Brenntag has provided copies of their Contingency Plan to the Menomonee Falls police and fire departments, the Waukesha County Local Emergency Planning Committee, and Community Memorial Hospital in Menomonee Falls. Correspondence pertaining to these submittals is included in the Contingency Plan.

1A.21. Prevention of Accidental Ignition or Reaction of Wastes (NR 670.014(2)(i))

Brenntag does not store reactive or incompatible wastes. Brenntag is licensed to store wastes that are classified as ignitable.

1A.22. Separation of Ignitable, Reactive or Incompatible Wastes (NR 664.0017(1))

Brenntag does not store reactive or incompatible wastes. Brenntag is licensed to store wastes that are classified as ignitable. The Drum Storage Building is designed to store ignitable wastes. The storage area has an automatic sprinkler system and is separated from the other areas of the building by a 4-hour firewall. The wastes are protected from sources of ignition such as open flames, smoking, cutting and welding, hot surfaces, or radiant heat.

1A.23. Smoking and Open Flames Near Ignitable or Reactive Wastes (NR 664.0017(1))

Smoking is prohibited inside the security fence surrounding the facility. Hot Work Permits are required for any operations, maintenance or construction activities that may require use of spark-producing equipment or open flames.

1A.24. "NO SMOKING" Signage Near Ignitable or Reactive Wastes (NR 664.0017(1))

"No Smoking" signs are posted at all main gates to the facility and smoking is strictly prohibited anywhere on Brenntag property.

1A.25. Documentation Demonstrating Compliance with Separation of Incompatible, Ignitable or Reactive Wastes (NR 664.0017(3))

Brenntag does not accept reactive and incompatible wastes from generators. All wastes shipments are tested for reactivity prior to being accepted.

Many of the wastes Brenntag stores are classified as flammable materials. The Drum Storage Building is designed for flammable liquid storage. The drum storage room has an automatic sprinkler system. The heating and ventilating systems comply with NFPA requirements. Exhaust fans are spark-proof and motors are explosion-proof. Process equipment and tools are constructed of non-sparking materials. Smoking or open flames are not allowed in the building or the yard area. No smoking signs are posted throughout the plant.

Section 1B
NONCOMPLIANCE WITH PLANS OR ORDERS (NR 670.014(2)(X)1.)

1B.1. Ownership (NR 670.014(2)(x)1.a.)

MILSOLV was sold to the Brenntag Company on June 30, 1998. Brenntag was made aware, in writing, of the requirements of NR 600.04, 620.15 and 630 to 685. On July 16, 2001, Brenntag submitted a Class I Modification Request to change the name of the facility from the MILSOLV Corporation to Brenntag Great Lakes, LLC.

The site is owned by Brenntag Great Lakes, LLC. The Corporate mailing address is as follows:

Brenntag Great Lakes, LLC
P.O. Box 444
Butler, WI 53007

The physical address of Brenntag Great Lakes, LLC Corporate Facility is as follows:

Brenntag Great Lakes, LLC
4420 N. Harley Davidson Avenue
Wauwatosa, WI 53225

The physical address of the Brenntag Great Lakes, LLC Hazardous Waste Facility is as follows:

Brenntag Great Lakes, LLC
N59 W14706 Bobolink Ave.
Menomonee Falls, WI 53051

Additional details regarding ownership and operations of the facility are included in the Operation and Maintenance Manual provided in Appendix K.

1B.2. Department Order or Plan Approval (NR 670.014(2)(x)1.b.)

Brenntag Great Lakes, LLC has not applied for and is not named in any other Hazardous Waste Facility application, besides the current Hazardous Waste Operating License for this facility.

1B.3. Other Hazardous Waste Facilities Owned by Brenntag (NR 670.014(2)(x)1.c.)

Brenntag Great Lakes, LLC does not own or operate any other Hazardous Waste Facilities in Wisconsin or any other State.

1B.4. Compliance With Plan Approvals and Orders (NR 670.014(2)(x)1.d.)

MILSOLV filed a Notice of Hazardous Waste Activity on July 14, 1980 with the DNR. An EPA RCRA Part A Hazardous Waste Permit application was filed February 9, 1982 with U.S. EPA. An interim license was issued to MILSOLV on January 12, 1983. On September 28, 1990 a Hazardous Waste Operating License was issued to MILSOLV. Brenntag changed it's name from MILSOLV to Brenntag Great Lakes, LLC on July 23, 2001.

Brenntag obtained a new Operating License for Hazardous Waste Management and Tank Storage on December 9, 2003. Brenntag obtained final approval including new licenses for hazardous waste treatment in tanks and containers (Fuel Blending) on September 5, 2007. A copy of these license approvals is included in Appendix O of this Feasibility Plan of Operation.

The existing Tank Farm (currently non-licensed tanks only) construction was completed in 1991. Construction of the existing Drum Storage and Processing Building was completed in 1994. The Solvent Reclamation Facility was constructed at its current location in 1981.

Section 1C
ENVIRONMENTAL IMPACT REVIEW (NR 670.014(2)(x)2.)

The Brenntag Facility is an existing storage and fuel blending facility. There are no significant changes planned to the existing operations, therefore, it is anticipated that an Environmental Impact Review is not required and is not applicable to this operating license reissuance.

1C.1. Purpose, History, Background, Relevant Permits and Zoning Changes (NR 670.014(2)(x)2.a.)

Brenntag fuel blends waste solvents and petroleum products for use as a secondary fuel. The facility has been in operation since 1974. MILSOLV filed a Notice of Hazardous Waste Activity on July 14, 1980 with the DNR. An EPA RCRA Part A Hazardous Waste Permit application was filed February 9, 1982 with U.S. EPA. An interim license was issued to MILSOLV on January 12, 1983. On September 28, 1990 a Hazardous Waste Operating License was issued to MILSOLV. The MILSOLV name was changed to Brenntag Great Lakes, LLC on July 23, 2001. Brenntag obtained a new Operating License for Hazardous Waste Management and Tank Storage on December 9, 2003. Brenntag obtained final approval including new licenses for hazardous waste treatment in tanks and containers (Fuel Blending) on September 5, 2007. A copy of these license approvals is included in Appendix O of this Feasibility Plan of Operation. The licensed hazardous waste storage facilities are needed to store waste solvents prior to remanifesting and for fuel blended materials prior to shipping them offsite. Section 1A.7 of this document provides information regarding local approval of Brenntag's Hazardous Waste Storage Facility. No zoning changes are required for the Brenntag facility.

1C.2. Description of Proposed Physical Changes re: Soil, Roads, Surface Waters (NR 670.014(2)(x)2.b.1)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any physical changes to the soils, roads or surface waters.

1C.3. Description of Proposed Physical Changes re: Aquatic Sources Such as Streams, Wetlands and Water Bodies (NR 670.014(2)(x)2.b.2)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any physical changes to the terrestrial or aquatic resources in the area.

1C.4. Description of Proposed Physical Changes re: Construction of Buildings or Other Structures (NR 670.014(2)(x)2.b.3)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any physical changes including construction of building or structures.

1C.5. Description of Proposed Physical Changes re: Air Emissions and Water Discharges During Construction, Operation, Closure (NR 670.014(2)(x)2.b.4)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any air emissions or water discharges during construction. Air emissions during operations are discussed in Appendix Section I. There is no equipment being closed at this time.

1C.6. Description of Proposed Physical Changes re: Any Other Changes Related to Facility Development (NR 670.014(2)(x)2.b.5)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any other changes related to Facility Development.

1C.7. Maps, Plans or Other Materials to Clarify 1C.1-1C.6 (NR 670.014(2)(x)2.b.6)

This is an existing facility and no new construction is planned. Maps and drawings of the site are included in Appendix T. The original Engineering Report and Design Drawings and Specifications are included in Appendix U.

1C.8. Description of Affects on Existing Physical Environment re: Topography, Surface Water Drainage, Hydrogeology, Geology (NR 670.014(2)(x)2.c.1)

Since no new construction is planned, there will be no physical changes to the existing environment. A description of the existing environment is provided in Section 1A of this document.

1C.9. Description of Affects on Existing Dominant Aquatic & Terrestrial Plant and Animal Species and Habitats (NR 670.014(2)(x)2.c.2)

See Section 1C.3 above.

1C.10. Description of Affects on Existing Land Use, Dominant Features and Zoning (NR 670.014(2)(x)2.c.3)

See Section 1C.1 above.

1C.11. Description of Affects on Existing Social and Economic Conditions re: Ethnic or Cultural Groups (NR 670.014(2)(x)2.c.4)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any affects on existing social or economic conditions including ethnic or cultural groups.

1C.12. Description of Affects on Existing Special Resources re: Archaeological, Historical, Natural Areas, or Agricultural Lands (NR 670.014(2)(x)2.c.5)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any affects on existing special arcaeological, historical, natural areas or agricultural lands.

1C.13. Description of Probable Adverse and Beneficial Physical Impacts re: Facility Design, Construction and Operation (NR 670.014(2)(x)2.d.1)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any adverse or beneficial impacts regarding facility design, construction or operation.

1C.14. Description of Probable Adverse and Beneficial Biological Impacts re: Alterations of Environment and Endangered Species (NR 670.014(2)(x)2.d.2)

Since this is an existing facility, with no new construction planned, there will be no adverse environmental impacts from the continued operation of the facility unless there is a release. Brenntag has measures in place to minimize the potential for releases. These measures have been discussed in various sections of this Feasibility and Plan of Operation Report. Brenntag also has a Contingency Plan in place to respond effectively if a release occurs.

There will be no additional adverse impacts on any biological habitats, threatened or endangered species, land use, or the physical environment.

The beneficial impacts include Brenntag's ability to continue to fuel blend, which reduces the quantity of waste solvents being disposed of and reduce the quantity of virgin solvents consumed.

1C.15. Description of Probable Adverse and Beneficial Impacts on Land Use (NR 670.014(2)(x)2.d.3)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any adverse or beneficial impacts regarding surrounding land use.

1C.16. Description of Probable Adverse and Beneficial Social and Economic Impacts to Local Residents, Cultural Groups, Communities, Industries (NR 670.014(2)(x)2.d.4)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any adverse or beneficial impacts regarding social or economic impacts on local residents, cultural groups, communities or industries.

1C.17. Description of Probable Adverse and Beneficial Impacts on Archaeological, Historical, Natural Areas, or Agricultural Lands (NR 670.014(2)(x)2.d.5)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any adverse or beneficial impacts regarding archaeological, historical, natural areas or agricultural lands.

1C.18. Discussion of Probable Adverse and Beneficial Impacts That Cannot Be Avoided re: Groundwater, Surface Water, Wildlife, Forest, etc. (NR 670.014(2)(x)2.d.6)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any adverse or beneficial impacts that cannot be avoided. Additional details regarding existing groundwater and soil conditions can be found in the Corrective Action Plan included in Appendix P.

1C.19. Identify, Describe and Discuss Feasible Alternatives Such as No Action, Reduction or Modification of Project (NR 670.014(2)(x)2.e)

The alternatives to renewing Brenntag's hazardous waste storage license would be to allow it to expire and to shut down the operations, or to relocate the operations. Shutting down the operations would mean Brenntag's customers would need to find another method for disposing of their waste solvents. If the operations were relocated, there could be additional adverse environmental impacts created by the construction of a new facility.

1C.20. Needs Determination (NR 670.014(2)(x)3)

As previously stated above, the licensed hazardous waste storage facilities are needed to store waste solvents for fuel blending materials prior to shipping them offsite.

The facility serves the needs of industries in Wisconsin and the surrounding states by providing an environmentally sound method of handling waste solvents. Fuel blending also serves a need for those materials that have adequate heating value but are not suitable for reclamation. It allows these waste materials to be recycled for use as a secondary fuel source, thereby reducing the quantity of other fuels required and minimizing waste disposal.

Section 1D
GROUNDWATER PROTECTION (NR 670.014(3))

1D.1.-1D.9 Groundwater and surface water on site is protected by providing secondary containment for waste storage and handling areas. See Sections 1A.13 of this document for additional information regarding protection of groundwater and surface water.

The Corrective Action Plan for the Brenntag Great Lakes Facility, Menomonee Falls, Wisconsin, dated April 2013, was prepared by Arcadis and is a stand-alone document. See Appendix P for additional details concerning groundwater protection at the site.

Section 1E
CORRECTIVE ACTION AND SOLID WASTE MANAGEMENT UNITS
(NR 670.014(4))

1E.1.-1E.8. The Corrective Action Plan for the Brenntag Great Lakes Facility, Menomonee Falls, Wisconsin, dated April 2013, was prepared by Arcadis and is a stand-alone document. See Appendix P for all details concerning Brenntag's Corrective Action Plan.

Section 1F
LOCATION STANDARDS (NR 670.014(2)(k) and NR 670.014(2)(s))

1F.1. Location with Respect to 100-Year Floodplain (NR 670.014(2)(k)3.)

The Brenntag property is not located in a wetland or in a floodplain. The 100-year flood inundation line is shown on the Topographic Map of the Northeast ¼ of Section 26, Township 8 North, Range 20 East, which is provided in Appendix T.

1F.2. Federal Insurance Administration (FIA) Flood Map or Calculations (NR 670.014(2)(k)3.)

Not Applicable. See Section 1F.1 above.

1F.3. Design of Facility to Withstand Washout from 100-Year Flood (NR 670.014(2)(k)3.)

Not Applicable. See Section 1F.1 above.

1F.4. Engineering Analysis of Hydrodynamic and Hydrostatic forces within 100-Year Flood Plain (NR 670.014(2)(k)4.a.)

Not Applicable. See Section 1F.1 above.

1F.5. Structural Engineering Studies for Prevention of Washout (NR 670.014(2)(k)4.b.)

Not Applicable. See Section 1F.1 above.

1F.6. Procedures to Move Waste Before Flooding (NR 670.014(2)(k)4.c.)

Not Applicable. See Section 1F.1 above.

1F.7. Demonstration that Procedures to Move Waste Before Flooding is Not Vulnerable to Flood Waters (NR 664.0018(2)(a))

Not Applicable. See Section 1F.1 above.

1F.8. Plan to Bring Facility in Compliance with 1F.7. (NR 670.014(2)(k)5.)

Not Applicable. See Section 1F.1 above.

1F.9. Dated Topographic Map (NR 670.014(2)(s))

Appendix T includes four (4) topographic maps of Section 26, Township 8N, Range 20E with 2-foot contour lines and a scale of 1"=100'. The maps are dated and also show the 100-Year Flood Inundation Lines, the flood stage elevation, surface waters and streams.

1F.10. Topographic Map with Date and Scale (NR 670.014(2)(s)1.)

See Section 1F.9 of this document for date and scale information.

1F.11. Topographic Map with 100-Year Floodplain Area (NR 670.014(2)(s)2.)

See Section 1F.9 of this document for 100-Year flood plain information.

1F.12. Topographic Map with Surface Waters and Streams (NR 670.014(2)(s)3.)

See Section 1F.9 of this document for surface water and intermittent stream information.

1F.13. Map with Surrounding Land Uses (NR 670.014(2)(s)4.)

Appendix T includes a Village of Menomonee Falls – Waukesha County – Zoning Map that shows residential, commercial, agricultural, governmental and park land use surrounding the facility. This map also includes floodway designations.

1F.14. Windrose Map (NR 670.014(2)(s)5.)

Appendix T includes a Wind Rose Map that designates the Annual Frequency Distribution of Wind Direction in Southeastern Wisconsin.

1F.15. Map Orientation (NR 670.014(2)(s)6.)

For each map included in Appendix T, they all have North arrows depicting correct orientation.

1F.16. Legal Boundaries of Hazardous Waste Facility (NR 670.014(2)(s)7.)

Appendix T includes a Plat Map of Property Boundaries and Surrounding Landowners along with a copy of the most recent survey drawing for the facility. The survey drawing indicates all legal boundaries, a legal description of the property, and surrounding security fencing and gates.

Appendix Q of this plan provides information regarding the distances from the hazardous waste storage operations to the respective property lines.

1F.17. Security Fencing and Gates (NR 670.014(2)(s)8.)

See Section 1H.2 of this document for security fencing and gate information.

1F.18. Injection and Supply Wells (NR 670.014(2)(s)9.)

The Arcadis Corrective Action Plan, included in Appendix P, contains Figures showing any subsurface wells at the site.

1F.19. Buildings, Storage, Treatment and Disposal Operations (NR 670.014(2)(s)10.)

Appendix T includes a Drawing G-1 that shows a General Site Plan of the facility. Appendix T also includes the latest copy of the survey drawing for the property that shows all buildings and structures on the site.

1F.20. Recreation Areas, Runoff Control Systems, Roads, Sewers, Loading and Unloading Areas (NR 670.014(2)(s)10.)

Appendix T includes the following drawings that show the roads, sewers, loading and unloading areas.

- General Site Plan
- Traffic Flow Patterns
- Storm Water Drainage Map
- Local Street Map

There are no recreational areas or runoff control systems on or near this site.

1F.21. Barriers for Drainage or Flood Control (NR 670.014(2)(s)11.)

Since the facility is not located within a 100-year floodplain area, maps do not include barriers for drainage or flood control.

1F.22. Location of Operational Units for Treatment, Storage or Disposal (NR 670.014(2)(s)12.)

See Section 1F.19 of this document for Operational Units used for Treatment, Storage and Disposal.

1F.23. Facility Location Relative to Wetland (NR 670.014(2)(k)6.b.)

According to the Village of Menomonee Falls Zoning Map included in Appendix T, the nearest wetland area relative to the facility is located approximately 750 feet due south of the plant. This area is designated and zoned as CW-1 Conservancy - Wetlands.

1F.24. Facility Location Relative to Critical Habitat, Threatened or Endangered Species (NR 670.014(2)(k)6.a.)

This is an existing facility in an existing industrial park. No new construction is planned. Therefore, Brenntag does not anticipate any physical changes to the terrestrial or aquatic resources in the area. Since no new construction is planned, there will be no changes to the existing environment nor any adverse environmental impacts from the continued operation of the facility unless there is a release. Brenntag has measures in place to minimize the potential for releases. These measures have been discussed in various sections of this Feasibility and Plan of Operation Report. Brenntag also has a Contingency Plan in place to respond effectively if a release occurs.

Brenntag has not been notified by the Wisconsin DNR that their property is located in a habitat determined by the DNR to be critical to the continued existence of any endangered species listed in Chapter NR 27 of the Wisconsin Administrative Code.

In addition, the U.S. Fish and Wildlife Services website has been searched for federally-listed endangered, threatened, proposed and candidate species. This search included all federally-listed mammals, birds, reptiles, clams, insects and plants. The only species that is currently listed for Waukesha County Wisconsin is the *Eastern Prairie Fringed Orchid.* Since the facility is existing and no new construction is planned, issuing a renewal of the existing Hazardous Waste Operating License should have no effect on any biological habitats, threatened or endangered species, land use, or the physical environment.

Section 1G
WASTE ANALYSIS PLAN REQUIREMENTS (NR 670.014(2)(c))

1G.1.-1G.17. Brenntag's Waste Analysis Plan is a stand-alone document that is updated by the plant on an As-Needed basis. See Appendix E for all details concerning Brenntag's Waste Analysis Plan.

Section 1H
SECURITY REQUIREMENTS (NR 670.014(2)(d))

1H.1. Prevention of Unknowing Entry with 24-hour Surveillance System (NR 664.0014(2)(a))

See Section 1H.2 of this document.

1H.2. Security Fencing, Gates and Artificial or Natural Barriers (NR 664.0014(2)(b))

In accordance with NR 664.0014(2), Brenntag must have either a 24-hour surveillance system, or, a completely fenced-in facility with a means to control entries at all times.

A seven-foot high chain link fence topped with barbed wire surrounds the Brenntag facility. The fence and gates are shown on the site plan and survey drawing in Appendix T. Gates are locked during hours when no employees are present and they are under constant surveillance by operating personnel during working hours. Traffic gates are electrically controlled and are normally closed and locked except for approved entries. Attendants must open gates to allow traffic to enter the facility. There are no artificial or natural barriers to the facility.

1H.3. Placement of "Keep Out" Signs (NR 664.0014(3))

A sign with the legend "Danger Unauthorized Personnel Keep Out" is posted at each gate and on each door to the Drum Storage Building.

1H.4. Demonstration of Non-Essential Security Requirements (NR 664.0014(1))

Not Applicable. See Section 1H.2 of this document.

Section 1I
GENERAL INSPECTION REQUIREMENTS (NR 670.014(2)(e))

Copies of the daily inspection forms for the Tank Farm and Drum Storage and Processing Building are provided in the Contingency Plan, which is included in Appendix F of this document.

1I.1. Description of Equipment and Devices Inspected (NR 664.0015(2)(a))

The inspection forms showing the areas inspected can be found in the Contingency Plan in Appendix F of this document.

1I.2. Description of Problems Checked During Inspections (NR 664.0015(2)(c))

The inspection forms found in the Contingency Plan in Appendix F of this document show the areas that are checked during inspections.

1I.3. Inspection Schedule for Closed Vent Systems and Control Devices per NR 664.1033 (NR 670.014(2)(d))

Not Applicable to the Brenntag Facility.

1I.4. Inspection Schedule for Subchapter BB Pumps in Light Liquid Service per NR 664.1052 (NR 670.014(2)(d))

Not Applicable to the Brenntag Facility.

1I.5. Inspection Schedule for Subchapter BB Compressors per NR 664.1053 (NR 664.0014(2)(d))

Not Applicable to the Brenntag Facility.

1I.6. Inspection Schedule for Subchapter BB Pumps and Valves in Heavy Liquid Service per NR 664.1058 (NR 664.0014(2)(d))

Not Applicable to the Brenntag Facility.

1I.7. Inspection Frequency to Prevent Environmental or Human Health Incidents (NR 664.0015(2)(d))

Brenntag's Inspection Logsheets can be found in Exhibit G of the Contingency Plan, included in Appendix F of this document. Brenntag conducts and documents daily inspections to help prevent environmental or human health incidents.

11.8. Daily Inspections of Areas Subject to Spills (NR 664.0015(2)(d))

The Brenntag facility currently operates 24 hours per day, 7 days per week, 52 weeks per year, with the exception of major holidays. The drum storage and processing rooms and the tanker transfer areas are inspected on a daily basis (during days of operation) to identify leaks, deterioration of containers, cracks in the floor, potential leaks, etc. Copies of the inspection logsheets are provided in the Contingency Plan in Appendix F and are filed and maintained on-site.

11.9. Inspection Frequency for Other Areas (NR 664.0015(2)(d))

The tanker truck fuel blending area is inspected daily, during days of operation, to identify spills or leaks, deterioration of containers, cracks in the containment area, etc. Copies of the inspection logsheets are provided in the Contingency Plan in Appendix F and are filed and maintained on-site.

11.10. Schedule for Repairs to Prevent Environmental or Health Hazards (NR 664.0015(3))

Brenntag's Daily Inspection Logsheet, included in Appendix F, of the Contingency Plan has a section where repairs and remedial actions or corrections can be noted. Brenntag schedules these repairs or corrective actions based on severity and risk to environmental health.

If a release occurs from a secondary containment system, Brenntag will immediately stop the flow of hazardous waste into the system and perform an inspection to determine the cause of the release.

If a release occurs from a container, within 24 hours Brenntag will remove as much of the waste as necessary from the tank to prevent further release of waste and to allow inspection and repair of the tank system.

If the material is released to a secondary containment system, all released material shall be removed within 24 hours.

Upon noticing a release, Brenntag will immediately conduct a visual inspection of the release, and, based upon that inspection, Brenntag will perform the following:

- Implement measures to prevent further migration of the leak or spill to the soil or surface water; and

- Remove and properly dispose of any visible contamination of the soil or surface water.

Brenntag is required to report to the DNR any noncompliance that may endanger human health or the environment. The noncompliance must be reported to the DNR verbally within 24 hours and in written form within 5 days of Brenntag becoming aware of the circumstances. The following information must be included in both the verbal and written report:

1) Name, address, and telephone number of the owner or operator.

2) Name, address, and telephone number of the facility.

3) A description of the noncompliance and the period of noncompliance, including exact date and time, and if the noncompliance has not been corrected, the anticipated time the noncompliance is expected to continue.

4) Name and quantity of material involved.

5) The extent of injuries, if any.

6) The assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable, including information concerning the release of any substance, which may cause contamination of a drinking water supply.

7) Estimated quantity and disposition of recovered material that resulted from the incident.

8) The known or suspected causes of the noncompliance and statement describing the measures taken to investigate the noncompliance to determine its cause.

9) Steps taken, or planned, to reduce or eliminate and prevent reoccurrence of the noncompliance.

In accordance with Brenntag's current Plan of Operation Approval, Brenntag reports all spills and discharges of hazardous waste immediately if they occur outside of the hazardous waste storage secondary containment structures and all spills of 10 gallons or greater of hazardous waste inside the secondary containment structure. Releases of hazardous waste or other hazardous substances in volumes of less than 10 gallons within the secondary containment structure of a designated hazardous waste storage area are recorded and reported to the DNR on a quarterly basis. The reports include the type and quantity of waste spilled, the location of the release, the source of the release, what actions were taken to clean up the release, and what actions will be taken to prevent a like release from recurring. If no spills or discharges occur, Brenntag sends a letter to the DNR stating that there no spills occurred during the quarter.

If the release has damaged the integrity of the container beyond repair, the container will no longer be used. If the release has damaged the integrity of the secondary containment system, the system shall be repaired or replaced prior to placing the tank back into service.

II.11. Inspection Log Records (NR 664.0015(4))

Copies of the inspection logsheets are provided in the Contingency Plan in Appendix F. Copies of inspection logsheets are filed and maintained on-site.

Section 1J
CONTINGENCY PLAN REQUIREMENTS (NR 670.014(2)(g))

1J.1. – 1J.26. Brenntag's Contingency Plan is a stand-alone document that is updated by the plant on a regular basis. See Appendix F for all details concerning Brenntag's Contingency Plan.

Section 1K
TRAINING PLAN REQUIREMENTS (NR 670.014(2)(L))

1K.1. – 1K.6. Brenntag's Training Plan is a stand-alone document that is updated by the plant on an As-Needed basis. See Appendix G for all details concerning Brenntag's Training Plan.

Section 1L
CLOSURE PLAN REQUIREMENTS (NR 670.014(2)(m))

1L.1. – 1L.19. Brenntag's Closure Plan is a stand-alone document provided in Appendix J of this document. The Closure Costs included in Exhibit B are updated by the plant on an annual basis and copies are sent to the DNR. See Appendix J for all details concerning Brenntag's Closure Plan.

Section 1M
CLOSURE COST ESTIMATE AND FINANCIAL RESPONSIBILITY
(NR 670.014(2)(o))

1M.1. – 1M.8. Brenntag's Closure Plan is a stand-alone document provided in Appendix J of this document. The closure cost estimates and financial responsibility details are included in Exhibit B of the Closure Plan. These documents are updated by the plant on an annual basis and copies are sent to the DNR. Brenntag maintains a letter of credit to cover the total closure cost. The letter of credit is reviewed on an annual basis and updated whenever the closure cost exceeds the amount of credit.

Section 1N
POLLUTION LIABILITY INSURANCE (NR 670.014(2)(q))

1N.1. Copy of Insurance Policy (NR 670.014(2)(q))

A copy of Brenntag's Certificate of Liability Insurance Policy is included in Appendix L.

1N.2. Financial Responsibility to Cover Bodily Injury and Property Damage to Third Parties (NR 664.0147(1))

A copy of Brenntag's Certificate of Liability Insurance Policy is included in Appendix L.

1N.3. Coverage of $1M per Occurrence and $2M Aggregate (NR 664.0147(1))

A copy of Brenntag's Certificate of Liability Insurance Policy is included in Appendix L. It includes $2M per occurrence and $2M aggregate General Liability. This exceeds NR 664.0147(1) requirements.

1N.4. If New Facility, Documentation of Insurance Before Operations Begin (NR 670.014(2)(q))

Not applicable to the Brenntag Facility.

Section 2A
CONTAINER STANDARDS - INSPECTIONS (NR 670.014(2)(e))

2A.1. Weekly Inspection of Containers (NR 664.0174)

Brenntag conducts daily inspections of all containers and secondary containment areas at their facility during normal days of operation. These inspections are recorded on the Inspection Logsheet included in Exhibit G of the Contingency Plan provided in Appendix F of this document.

2A.2. Inspection Frequency Adequate to Prevent Incident (NR 664.0015(2)(d))

See Section 2A.1 above.

2A.3. Inspection Frequency for Subpart CC Containers (NR 664.1086 & NR 670.014(2)(e))

See Section 2A.1 above.

2A.4. Inspection Schedule Includes Inspection and Monitoring Requirements (NR 670.014(2)(e))

See Section 2A.1 above.

2A.5. Subpart CC Inspection Frequency Adequate to Prevent Incidents (NR 664.0015(2)(d))

See Section 2A.1 above.

Section 2B
CONTAINER STANDARDS – CONTAINMENT (NR 670.015(1))

2B.1. Containment Designed to be Sufficiently Impervious Until Material is Removed (NR 664.0175(2)(a))

Containers of hazardous waste are stored in the Drum Storage and Processing Building. A layout of this building is provided as Figure G-5 in Appendix T. The drum storage and processing areas in this building have concrete floors. All control and construction joints in the floor and in the truck unloading pad, located outside, were constructed with waterstops and concrete sealant material. The floors are sloped to direct spills to collection trenches. The doorways are ramped to prevent spills from exiting the building. The spill collection trenches gravity drain to conveyance piping that is connected to an outside, aboveground secondary containment tank.

The secondary containment tank is located near the northeast corner of the Drum Storage Building. It has a capacity of 6,000 gallons. The Drum Storage Building and Processing Building is designed to store 55,000 gallons of hazardous waste in containers. The secondary containment tank for this area was designed to hold 10 percent of the total storage capacity. The tank is steel construction with two compartments. It was designed with two compartments to prevent the entire tank from being contaminated by small spills. Spills that are less than 160 gallons will be contained in the first compartment. Larger spills will overflow to the second compartment. The first compartment has a level sensor. If a spill occurs, the level sensor will send a signal to an emergency alarm panel located in the Maintenance Shop where it will trigger an audible and visual alarm. The audible alarm can be heard both inside and outside the building.

The spill collection tank will also function as an oil/water or solvent/water separator in the event of a fire. The tank contains an underflow baffle that will allow water to pass through while lighter materials such as solvents and oils will be retained in the tank. The tank has three manways to allow access for inspection, material sampling, and cleaning purposes.

The adjacent truck unloading pad is designed to contain spills. The pad is curbed and sloped to a collection sump. It has a secondary containment capacity of 2,000 gallons. This pad also provides additional secondary containment capacity for the Drum Storage and Processing Building because the secondary containment tank overflows to this pad.

Engineering plans for the Drum Storage and Processing Building modifications, which were designed in 1993 and constructed in 1994. Additional design specifications for the Drum Storage and Processing Building and truck unloading area are provided on the design drawings prepared by Triad Engineering. Copies of these drawings are provided in Appendix U.

Fuel blending activities are conducted directly west of the tank farm. This area allows three tanker trucks to be parked within the curbed secondary containment system. The floor of this containment area is constructed of concrete and all cracks have been cleaned and sealed with chemically compatible caulking. The area is bermed with asphalt along the west side to

prevent run-on and to contain any spills or leaks. It is estimated that the volume of a spill resulting from a tanker truck release could be cleaned up within a two-hour period. The containment volume is estimated to be approximately 6,000 gallons, plus 2.88 inches of freeboard. Therefore, the largest compartment of a tanker truck (6,000 gallons), would be contained in the event of a catastrophic spill. The largest volume of waste material normally stored in the tanker trucks is 5,200 gallons, due to weight constraints. Refer to Spectrum Engineering Drawing No. 06550-G1, in Appendix Z, for elevations within the secondary containment along with containment capacity calculations.

There is a low area located within the fuel blending secondary containment where accumulated precipitation is removed to prevent overflow of the containment area. Accumulated rainwater is typically removed immediately after a storm event, but could be removed within a 24 hour period, in accordance with the Brenntag's Hazardous Waste Permit. Run-on into the containment area is prevented with a swale and berm along the west side of the containment area. Snow that gathers in the fuel blending secondary containment area is blown into the tank farm for collection, pumping and proper disposal, once it has melted.

Engineering Plans in Appendix U provide original design details for the Drum Storage and Processing Facility.

2B.2. Base Sloped for Drainage (NR 664.0175(2)(b))

See Section 2B.1 above. Engineering Plans in Appendix U provide original design details regarding sloped floors and trench drains promoting drainage for the Drum Storage and Processing Facility.

2B.3. Containment System 10% of Volume of Containers (NR 664.0175(2)(c))

See Section 2B.1 above. Engineering Plans in Appendix U provide design details regarding containment of 10% of the volume of containers stored within this area. Also see Section 2B.1 above.

2B.4. Run-on Prevention (NR 670.0175(2)(d))

A Storm Water Drainag Map is included on Drawing G-4 in Appendix T. This drawing shows general site drainage for the Facility. The Drum Storage and Processing Buildings have been built above surrounding grade so run-on into the building is non-existent. Run-on into the Truck Unloading Containment area does occur. A sump pump system is currently in use on the south side of Truck Unloading area for removal of rainwater.

There is an existing 8-inch asphalt curb installed around the perimeter of the of the Tanker Transfer Containment area. This curbing prevents run-on to this portion of the facility. See Section 2B.1 above for additional detail regarding run-on.

2B.5. Spilled Waste Removal in a Timely Manner (NR 664.0175(2)(e))

See Section 2B.1 above regarding estimated removal times for spilled waste.

2B.6. Containment Compliance with 2B.1-2B.5 for F020-F023 and F026-F027 Wastes w/ No Free Liquid (NR 664.0175(4))

Not applicable to the Brenntag Facility. Brenntag does not store F020-F023 or F026-F027 wastes.

2B.7. Description of Basic Design Parameters (NR 670.015(1)(a))

See Section 2B.1 above. Engineering Plans in Appendix U provide original design parameters for the Drum Storage and Processing Facility.

2B.8. Description of Containment Promoting Drainage (NR 670.015(1)(b))

See Section 2B.1 above. Engineering Plans in Appendix U provide original design details regarding sloped floors and trench drains promoting drainage for the Drum Storage and Processing Facility.

2B.9. Description of Capacity of Containment (NR 670.015(1)(c))

See Section 2B.1 above. Engineering Plans in Appendix U provide original design details regarding containment capacity for the Drum Storage and Processing Facility.

Refer to Spectrum Engineering Drawing No. 06550-G1, in Appendix Z, for elevations within the Fuel Blending/Tanker Transfer secondary containment area along with containment capacity calculations.

2B.10. Provisions for Preventing or Managing Run-on (NR 670.015(1)(d))

See Section 2B.4 above.

2B.11. Analyze and Remove Accumulated Liquids to Prevent Overflow (NR 670.015(1)(e))

The storm water that collects in the Fuel Blending/Tanker Transfer area is shipped offsite for disposal. Brenntag has an existing WPDES permit that allows treatment with an existing air stripper, however, this method is not currently used.

Storm water that accumulates in the Truck Unloading Dock at the Drum Processing Building drains to a sump that is equipped with a sump pump for removal of rainwater. The sump pump is not automatic and has to be plugged in (turned on) in order to remove rainwater.

Currently, Brenntag does not have any discharges to the municipal sanitary sewer system, except for domestic wastes.

2B.12. If Free Liquids, Storage Area to be Sloped (NR 670.015(2))

See Section 2B.1 above. Engineering Plans in Appendix U provide original design details regarding the sloped floors and trench drainage system for the Drum Storage and Processing Facility.

2B.13. Test Procedures and Results Showing No Free Liquids (NR 670.015(2)(a))

Not applicable to the Brenntag Facility. Brenntag handles wastes that do contain free liquids.

2B.14. Description of Drainage and Removal of Liquids (NR 670.015(2)(b))

See Section 2B.11 above.

Section 2C
CONTAINER STANDARDS – INCOMPATIBLE, REACTIVE, IGNITABLE WASTE ((NR 670.015(3) & NR 670.015(4))

2C.1. Documentation of 50 foot Setback from Property Line (NR 664.0176)

The Drum Storage and Processing Building is located 40 feet from the east property line and 10.5 feet from the north property line. On the east property line, the Village of Menomonee Falls has a 15-foot easement for the storm drain. On the north property line, the Village has a 20-foot easement for the sanitary sewer. In addition, Volkmann Railroad, who owns the property to the north, has agreed to limit access to the area within 50 feet of Brenntag's Hazardous Waste Storage and Processing Building and within 50 feet of Brenntag's Tanker Loading Area. Signs are posted on the property stating "DANGER UNAUTHORIZED PERSONNEL KEEP OUT". Volkmann Railroad has agreed not to construct any buildings within 50 feet of the Hazardous Waste Storage and Processing Building and the Tanker Loading Area. A copy of the agreement between Brenntag and Volkmann Railroad and a drawing showing the easements is provided in Appendix Q.

In accordance with Brenntag's Conditional Approval for the Drum Storage and Processing Building, dated June 13, 1993, Brenntag (formerly MILSOLV) complies with an alternative location requirement as allowed by NR 680.04 at that time. This alternative requirement mandates that Brenntag comply with the following conditions:

- All hazardous waste storage in containers shall be confined to the designated storage area as shown on Triad Engineering Drawing No 10597-302 in Appendix U of this document.
- Brenntag shall store containers in a safe manner in the configuration that they are presented in Drawing No. 10597-302 in Appendix U of this document.
- Brenntag shall comply with the maximum storage capacity requirements for containers.
- Brenntag shall not store, accumulate, or transfer hazardous waste containers west and north of the container storage building.

Brenntag must also comply with the requirements laid out by the Menomonee Falls Fire Department in their July 28, 1992 letter to MILSOLV. A copy of this letter is provided in Appendix Q. The Drum Storage and Processing Building was designed in accordance with the Fire Department's requirements.

2C.2. Separation of Incompatible Wastes (NR 664.0177(3))

Brenntag does not accept reactive and/or incompatible wastes from generators. Brenntag performs a reactivity test on each waste stream when it is received at the facility to determine if it is compatible with the wastes being stored. If the waste is not compatible, it is rejected and shipped back to the generator or it is shipped to another facility for disposal.

Hazardous wastes are stored in containers (typically 55-gallon drums) in the Drum Storage and Processing Building. The only times wastes are removed from the containers are when the wastes are sampled or when they are scheduled for fuel blending. A Process Flow Diagram for the hazardous waste storage operations is provided on Drawing 06555-M1 in Appendix Z.

Brenntag has adequate aisle space in the drum storage room to allow access for inspection purposes and to allow unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment in the event of an emergency. Drawing G-5 in Appendix T provides a layout of the drum storage and processing rooms.

2C.3. Description of Procedures Preventing Incompatible Wastes in Same Container (NR 670.0015(4))

See Section 2C.2 above.

2C.4. Precautions to Prevent Reactions or Explosions (NR 664.0017(2)(a))

Brenntag does not store reactive or incompatible wastes. Brenntag is licensed to store wastes that are classified as ignitable. The Drum Storage and Processing Building is designed to store ignitable wastes. The storage and processing areas have automatic sprinkler systems and they are separated from the other areas of the building by a 4-hour fire-wall. The wastes are protected from sources of ignition such as open flames, smoking, cutting and welding, hot surfaces, or radiant heat.

Brenntag does not accept reactive waste. However, Brenntag does accept ignitable waste with (flammable) and combustible characteristics. Ignitable wastes are stored in tanker trucks that could potentially be parked less than 50 feet (approximately 44 feet) from the north property line. On the north property line, there is a 20-foot easement along with a 30' setback requirement that runs parallel to the north property line and renders this 50' area unbuildable. In addition, the tanker truck container parking area is included in the land usage agreement from Volkmann Railroad for the adjoining property. A copy of this agreement letter is included in Appendix Q.

Unloading operations consist of unloading closed containers (including drums and totes), as well as conducting tanker to tanker transfers in the unloading area. Brenntag utilizes LP-S Rated forktrucks to eliminate any electrical hazards during unloading operations. Electrical power wiring in the building is Classified as Class I, Div. II with explosion-proof light fixtures throughout. Standard mechanical edge-of-dock levelers are used for forktruck access into box trailers during unloading of drums or totes.

Smoking is prohibited inside the security fence surrounding the facility. Hot Work Permits are required for any operations, maintenance or construction activities that may require use of spark producing equipment or open flames.

Brenntag does not perform any detonation or open burning of explosives.

2C.5. Precautions to Prevent Toxic Mists, Dusts, Fumes (NR 664.0017(2)(b))

Brenntag stores hazardous waste in containers. These containers meet the applicable U.S. DOT regulations on packaging hazardous materials for transportation. The containers are equipped with covers and closure devices that form a continuous barrier over the container openings, such that, when the cover and closure devices are secured in the closed position, there are no visible holes, gaps, or open spaces into the interior of the container. The containers are covered at all times when they are in storage. The only time they are uncovered is for sampling purposes and to remove the contents.

Section 1A.20 of this document and the Contingency Plan provided in Appendix F describe the procedures, structures, and equipment used at the facility to prevent and mitigate hazards and contamination from waste releases.

2C.6. Precautions to Prevent Flammable Fumes (NR 664.0017(2)(c))

See Section 2C.5 above.

2C.7. Precautions to Prevent Structural Damage (NR 664.0017(2)(d))

Section 1A.20 of this document and the Contingency Plan provided in Appendix F describe the procedures, structures, and equipment used at the facility to prevent and mitigate hazards and contamination from waste releases. Also, the original Engineering Report and Design Plans and Specifications in Appendix U provide details on firewall and building construction.

2C.8. Precautions to Prevent Reactions through Other Means (NR 664.0017(2)(e))

See Section 2C.2 and 2C.4.

2C.9. Documentation of Compliance with 2C.1-2C.8 (NR 664.0017(3))

Compliance with this section is documented in the original Engineering Report and Design Plans and Specifications for the Drum Storage and Processing Facility included in Appendix U. The facility design includes building fire protection, rack fire protection, containment for firewater and spills, explosion-proof electrical, emergency alarms, proper fire-wall construction and separation, adequate aisle layouts, etc.

2C.10. Description of Procedures to Prevent Incompatible Waste Mixture in Dirty Containers (NR 670.0177(2))

Hazardous wastes are stored in DOT containers. The containers are inspected on a regular basis and wastes are recontainerized if the container begins to leak or if the container is not in good condition. Wastes are not combined with other wastes in drums or totes. Fuel Blending is conducted in tanker truck containers only. Brenntag keeps a log that lists the identity and location of all hazardous wastes throughout their storage period. Containers remain closed during storage and are only opened for sampling or to remove waste. Containers are stored on racks and are handled carefully to prevent the containers from being ruptured.

Details regarding the Fuel Blending operations are included in Appendix I. Methods for handling incompatible wastes can also be found in the Operation and Maintenance Manual included in Appendix K. Also See Section 2C.2 above for additional detail.

Section 2D
TANK STANDARDS – GENERAL (NR 670.016)

2D.1.-2D.6 No Longer Applicable – Tanks are closed and removed from service.

Section 2E
TANK STANDARDS – INSPECTIONS (NR 670.014(2)(e))

2E.1.-2E.8 No Longer Applicable – Tanks are closed and removed from service.

Section 2F
TANK STANDARDS – EXISTING TANKS (NR 670.016(1))

2F.1.-2F.22 No Longer Applicable – Tanks are closed and removed from service.

Section 2G
TANK STANDARDS – NEW TANKS (NR 670.016(1) and NR 670.016(6))

2G.1.-2G.28 No Longer Applicable – Tanks are closed and removed from service. No new tanks are proposed.

Section 2H
TANK STANDARDS – SECONDARY CONTAINMENT (NR 670.016(7) and NR 670.016(8))

2H.1.-2H.28 No Longer Applicable – Tanks are closed and removed from service.

Section 2I
TANK STANDARDS – IGNITEABLE, REACTIVE AND COMPATIBLE WASTES (NR 670.016(10))

2I.1.-2I.13 No Longer Applicable – Tanks are closed and removed from service.

Section 2J
STANDARDS FOR MISCELLANEOUS UNITS – STORAGE AND TREATMENT (NR 670.023)

2J.1.-2J.41 No Miscellaneous Storage and Treatment Units are used at the site.

Section 2K
SUBPART AA – AIR EMISSION CONTROL STANDARD FOR PROCESS VENTS (NR 670.024)

2K.1.-2K.14 No Longer Applicable. Processing Equipment is closed and removed from service.

Section 2L
SUBPART BB – AIR EMISSION CONTROL STANDARD FOR EQUIPMENT (NR 670.025)

2L.1.-2L.17 No Longer Applicable. Processing Equipment is closed and removed from service.

Section 2M
SUBPART CC – AIR EMISSION CONTROL STANDARD FOR CONTAINERS AND TANKS (NR 670.027)

2M.1. Floating Roof Cover (NR 664.1084)

Not Applicable to the Brenntag Facility.

2M.2. Identification of Each Container Area Subject to this Standard (NR 664.027(1)(b))

Containers subject to this standard include DOT Drums and Totes along with DOT Tanker Trucks used for Fuel Blending. Container sizes and applicable code requirements are as follows:

30-gallon and 55-gallon DOT Drums = 0.114 cubic meters and 0.21 cubic meters
275-gallon to 330-gallon DOT Totes = 1.04 cubic meters to 1.25 cubic meters
6,000-gallon DOT Tankers = 22.7 cubic meters

NR 664.1086 Standards for Containers has design capacity requirements of 0.1 cubic meters and 0.46 cubic meters. All of the DOT Drums fall within the ***0.1 to 0.46 cubic meter*** requirements. The DOT Totes and DOT Tankers fall within the ***greater than 0.46 cubic meter*** requirements. Additional details regarding compliance with applicable sections of NR 664.1086 for drums and totes are included in Sections 2A, 2B, and 2C of this report. Additional details regarding compliance with applicable sections of NR 664.1086 for Tankers are included in Appendix I.

2M.3. Owner / Operator Certification for Cover to Meet Subpart CC (NR 670.027(1)(b))

The Certification required by NR 670.027(1)(b) is included in Appendix I.

2M.4. Documentation of Enclosure for Containers (NR 670.027(1)(c))

Details regarding documentation for enclosures of containers are included in Appendix I.

2M.5. Records on Calculations that Enclosure Meets Permanent Total Enclosure (NR 664.027(1)(c))

Not Applicable to the Brenntag Facility. There is not a total enclosure present.

2M.6. Documentation of Each Closed-Vent System and Control Device (NR 664.1087 and NR 670.027(1)(e))

Not Applicable. No Closed Vent System or Control Device.

2M.7. Emission Monitoring Plan (NR 664.027(1)(f))

Not Applicable. No Control Device.

APPENDIX A

PART A APPLICATION

OMB# 2050-0024; Expires 12/31/2014

ND MPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**

1. Reason for Submittal (MARK ALL BOX(ES) THAT APPLY)

Reason for Submittal:

- ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location)
- ☒ To provide a Subsequent Notification (to update site identification information for this location)
- ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application
- ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # 2)
- ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below)
  - ☐ Site was a TSD facility and/or generator of ≥1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)

2. Site EPA ID Number

EPA ID Number W I D 0 2 3 3 5 0 1 9 2

3. Site Name

Name: BRENNTAG GREAT LAKES, LLC

4. Site Location Information

Street Address: N59 W14706/N59 W14776 BOBOLINK AVE.

City, Town, or Village: MENOMONEE FALLS | **County:** WAUKESHA

State: WISCONSIN | **Country:** USA | **Zip Code:** 53051

5. Site Land Type

☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

NAICS Code(s) for the Site (at least 5-digit codes)

A. 4 2 1 9 3 | C. | B. | D.

7. Site Mailing Address

Street or P.O. Box: P.O. BOX 444

City, Town, or Village: BUTLER

State: WISCONSIN | **Country:** USA | **Zip Code:** 53007

8. Site Contact Person

First Name: JUDY | **MI:** | **Last:** NINKE

Title: REGIONAL MANAGER OF ENVIRONMENTAL SERVICES

Street or P.O. Box: P.O. BOX 444

City, Town or Village: BUTLER

State: WISCONSIN | **Country:** USA | **Zip Code:** 53007

Email: jninke@brenntag.com

Phone: 262-252-6464 | **Ext.:** | **Fax:**

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner: BRENNTAG GREAT LAKES, LLC | **Date Became Owner:** 6/30/1998

Owner Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

Street or P.O. Box: P.O. BOX 444

City, Town, or Village: BUTLER | **Phone:** 800-558-8501

State: WISCONSIN | **Country:** USA | **Zip Code:** 53007

B. Name of Site's Operator: BRENNTAG GREAT LAKES, LLC | **Date Became Operator:** 7/16/2001

Operator Type: ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 | OMB#: 2050-0024; Expires 12/31/2014

10. Type of Regulated Waste Activity (at your site)
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-10.

Y [✓] N [ ] **1. Generator of Hazardous Waste**
If "Yes", mark only one of the following – a, b, or c.

- [✓] a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- [ ] b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs./mo) of non-acute hazardous waste.
- [ ] c. CESQG: Less than 100 kg/mo (220 lbs./mo) of non-acute hazardous waste.

If "Yes" above, indicate other generator activities in 2-4.

Y [ ] N [✓] **2. Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.

[ ] N [✓] **3. United States Importer of Hazardous Waste**

Y [ ] N [✓] **4. Mixed Waste (hazardous and radioactive) Generator**

Y [✓] N [ ] **5. Transporter of Hazardous Waste**
If "Yes", mark all that apply.

- [✓] a. Transporter
- [✓] b. Transfer Facility (at your site)

Y [✓] N [ ] **6. Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.

Y [✓] N [ ] **7. Recycler of Hazardous Waste**

Y [ ] N [✓] **8. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark all that apply.

- [ ] a. Small Quantity On-site Burner Exemption
- [ ] b. Smelting, Melting, and Refining Furnace Exemption

Y [ ] N [✓] **9. Underground Injection Control**

Y [✓] N [ ] **10. Receives Hazardous Waste from Off-site**

B. Universal Waste Activities; Complete all parts 1-2.

Y [✓] N [ ] **1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply.**

a. Batteries	[✓]
b. Pesticides	[ ]
c. Mercury containing equipment	[✓]
d. Lamps	[✓]
e. Other (specify) Computers	[✓]
f. Other (specify)	[ ]
g. Other (specify)	[ ]

Y [✓] N [ ] **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4.

Y [✓] N [ ] **1. Used Oil Transporter**
If "Yes", mark all that apply.

- [✓] a. Transporter
- [ ] b. Transfer Facility (at your site)

Y [ ] N [✓] **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.

- [ ] a. Processor
- [ ] b. Re-refiner

Y [ ] N [✓] **3. Off-Specification Used Oil Burner**

Y [ ] N [✓] **4. Used Oil Fuel Marketer**
If "Yes", mark all that apply.

- [ ] a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- [ ] b. Marketer Who First Claims the Used Oil Meets the Specifications

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 | OMB#: 2050-0024; Expires 12/31/2014

Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

- You can **ONLY** Opt into Subpart K if:
  - you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
  - you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y☐ N☐ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories **See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:**

☐ a. College or University

☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y☐ N☐ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Waste

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

NONE - ALL	FEDERAL ARE	NOW STATE.				

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-Regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

REFER TO	ITEM 9 OF	HAZARDOUS	WASTE PERMIT	INFORMATION	FORM.	

PA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 | OMB#: 2050-0024; Expires 12/31/2014

12. Notification of Hazardous Secondary Material (HSM) Activity

Y ☐ N ☑ Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

THE WASTE CODES, WHICH BRENNTAG GREAT LAKES, LLC IS LICENSED TO STORE, ARE INCLUDED IN THIS UPDATE HAZARDOUS WASTE PERMIT APPLICATION PART A. THERE ARE NO ADDITIONAL WASTE CODES BEING ADDED WITH THIS SUBMITTAL. THIS PLAN MODIFICATION IS BEING SUBMITTED SPECIFICALLY TO RENEW THE FACILITY'S HAZARDOUS WASTE OPERATION LICENSE AND TO UPDATE THE FEASIBILITY AND PLAN OF OPERATION IN ACCORDANCE WITH NR 600 CODE CHANGES.

14. Certification. 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 fines and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all owner(s) and operator(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of legal owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	KEVIN BAGIN, V.P. OPERATIONS	6-5-13

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 | OMB#: 2050-0024; Expires 12/31/2014

ADDENDUM TO THE SITE IDENTIFICATION FORM:
NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY

ONLY fill out this form if:

- You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent). See http://www.epa.gov/epawaste/hazard/dsw/statespf.htm for a list of eligible states; **AND**
- You are or will be managing excluded HSM in compliance with 40 CFR 261.2(a)(2)(ii), 261.4(a)(23), (24), or (25) (or state equivalent) **or** you have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section.

1. Indicate reason for notification. Include dates where requested.

☐ Facility will begin managing excluded HSM as of _____ (mm/dd/yyyy).

☐ Facility is still managing excluded HSM/re-notifying as required by March 1 of each even-numbered year.

☐ Facility has stopped managing excluded HSM as of _____ (mm/dd/yyyy) and is notifying as required.

2. Description of excluded HSM activity. Please list the appropriate codes and quantities in **short tons** to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

a. Facility code (answer using codes listed in the Code List section of the instructions)	**b. Waste code(s) for HSM**	**c. Estimated short tons of excluded HSM to be managed annually**	**d. Actual short tons of excluded HSM that was managed during the most recent odd-numbered year**	**e. Land-based unit code** (answer using codes listed in the Code List section of the instructions)

3. Facility has financial assurance pursuant to 40 CFR 261.4(a)(24)(vi). (Financial assurance is required for reclaimers and intermediate facilities managing excluded HSM under 40 CFR 261.4(a)(24) and (25))

☐ Y ☐ N Does this facility have financial assurance pursuant to 40 CFR 261.4(a)(24)(vi)?

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EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

United States Environmental Protection Agency

HARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	**First Name:** JUDY	**MI:**	**Last Name:** NINKE
	Contact Title: REGIONAL MANAGER OF ENVIRONMENTAL SERVICES		
	Phone: 262-252-6464	**Ext.:**	**Email:** jninke@brenntag.com
2. Facility Permit Contact Mailing Address	**Street or P.O. Box:** P.O. BOX 444		
	City, Town, or Village: BUTLER		
	State: WISCONSIN		
	Country: USA	**Zip Code:** 53007	
3. Operator Mailing Address and Telephone Number	**Street or P.O. Box:** P.O. BOX 444		
	City, Town, or Village: BUTLER		
	State: WISCONSIN	**Phone:** 262-252-6464	
	Country: USA	**Zip Code:** 53007	
4. Facility Existence Date	**Facility Existence Date (mm/dd/yyyy):** 9/28/1990 (INITIAL LICENSE)		

5. Other Environmental Permits

A. Facility Type *(Enter code)*	B. Permit Number	C. Description
	2 6 8 1 7 5 4 9 0 R O P A	Type A Registration Permit
	W I - 0 0 4 6 5 6 6 - 4	WPDES Permit

6. Nature of Business: CHEMICAL DISTRIBUTION WITH STORAGE, TRANSPORTATION AND TREATMENT OF HAZARDOUS WASTE.

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 | OMB#: 2050-0024; Expires 12/31/2014

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

B. PROCESS DESIGN CAPACITY – For each code entered in Item 7.A; enter the capacity of the process.

1. **AMOUNT – Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE – For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.**

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
Disposal		
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
Storage		
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
Treatment		
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity (for T81 – T94)
Treatment (Continued)		
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
Miscellaneous (Subpart X)		
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
[illegible]ers	L
[illegible]rs Per Hour	H
Liters Per Day	V

Unit of Measure	Unit of Measure Code
Short Tons Per Hour	D
Short Tons Per Day	N
Metric Tons Per Hour	W
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	X
Million BTU Per Hour	X

Unit of Measure	Unit of Measure Code
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
BTU Per Hour	I

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Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

'ote: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. ımber the line sequentially, taking into account any lines that will be used for "other" process (i.e., D99, S99, T04, and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure	C. Process Total Number of Units	For Official Use Only
X	2	T	0	4	100.00	U	001	

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9. Description of Hazardous Wastes - Enter Information in the Sections on Form Page 5

A. EPA HAZARDOUS WASTE NUMBER – Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. **Enter the first two as described above.**
2. **Enter "000" in the extreme right box of Item 9.D(1).**
3. **Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.**

2. PROCESS DESCRIPTION: If code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. **Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.**
2. **In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.**
3. **Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.**

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

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9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))
	1	D	0	0	1	1,200,000	P	S	0	1	T	0	4				
	2	D	0	0	4	5,000	P	S	0	1	T	0	4				
	3	D	0	0	5	10,000	P	S	0	1	T	0	4				
	4	D	0	0	6	5,000	P	S	0	1	T	0	4				
	5	D	0	0	7	20,000	P	S	0	1	T	0	4				
	6	D	0	0	8	80,000	P	S	0	1	T	0	4				
	7	D	0	0	9	5,000	P	S	0	1	T	0	4				
	8	D	0	1	0	10,000	P	S	0	1	T	0	4				
	9	D	0	1	1	10,000	P	S	0	1	T	0	4				
1	0	D	0	1	2	10,000	P	S	0	1	T	0	4				
1	1	D	0	1	3	10,000	P	S	0	1	T	0	4				
1	2	D	0	1	4	10,000	P	S	0	1	T	0	4				
1	3	D	0	1	5	10,000	P	S	0	1	T	0	4				
1	4	D	0	1	6	10,000	P	S	0	1	T	0	4				
1	5	D	0	1	7	10,000	P	S	0	1	T	0	4				
1	6	D	0	1	8	5,000	P	S	0	1	T	0	4				
	7	D	0	1	9	10,000	P	S	0	1	T	0	4				
1	8	D	0	2	1	10,000	P	S	0	1	T	0	4				
1	9	D	0	2	2	1,000	P	S	0	1	T	0	4				
2	0	D	0	2	3	10,000	P	S	0	1	T	0	4				
2	1	D	0	2	4	10,000	P	S	0	1	T	0	4				
2	2	D	0	2	5	10,000	P	S	0	1	T	0	4				
2	3	D	0	2	6	10,000	P	S	0	1	T	0	4				
2	4	D	0	2	7	10,000	P	S	0	1	T	0	4				
2	5	D	0	2	8	10,000	P	S	0	1	T	0	4				
2	6	D	0	2	9	10,000	P	S	0	1	T	0	4				
2	7	D	0	3	0	5,000	P	S	0	1	T	0	4				
2	8	D	0	3	1	10,000	P	S	0	1	T	0	4				
2	9	D	0	3	2	10,000	P	S	0	1	T	0	4				
3	0	D	0	3	3	10,000	P	S	0	1	T	0	4				
3	1	D	0	3	4	10,000	P	S	0	1	T	0	4				
3	2	D	0	3	5	5,000	P	S	0	1	T	0	4				
3	3	D	0	3	6	10,000	P	S	0	1	T	0	4				
3	4	D	0	3	7	10,000	P	S	0	1	T	0	4				
3	5	D	0	3	8	10,000	P	S	0	1	T	0	4				
	6	D	0	3	9	5,000	P	S	0	1	T	0	4				

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9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

ıe Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
3	7	D	0	4	0	5,000	P	S	0	1	T	0	4				
3	8	D	0	4	1	10,000	P	S	0	1	T	0	4				
3	9	D	0	4	2	10,000	P	S	0	1	T	0	4				
4	0	D	0	4	3	10,000	P	S	0	1	T	0	4				
4	1	F	0	0	1	25,000	P	S	0	1	T	0	4				
4	2	F	0	0	2	150,000	P	S	0	1	T	0	4				
4	3	F	0	0	3	2,500,000	P	S	0	1	T	0	4				
4	4	F	0	0	4	10,000	P	S	0	1	T	0	4				
4	5	F	0	0	5	15,000,000	P	S	0	1	T	0	4				
4	6	F	0	0	6	10,000	P	S	0	1	T	0	4				
4	7	F	0	2	4	10,000	P	S	0	1	T	0	4				
4	8	F	0	2	5	10,000	P	S	0	1	T	0	4				
4	9	F	0	3	4	5,000	P	S	0	1	T	0	4				
5	0	F	0	3	5	10,000	P	S	0	1	T	0	4				
5	1	F	0	3	7	10,000	P	S	0	1	T	0	4				
5	2	F	0	3	8	10,000	P	S	0	1	T	0	4				
5	3	F	0	3	9	10,000	P	S	0	1	T	0	4				
5	4	K	0	0	1	10,000	P	S	0	1	T	0	4				
5	5	K	0	0	2	10,000	P	S	0	1	T	0	4				
5	6	K	0	0	3	10,000	P	S	0	1	T	0	4				
5	7	K	0	0	4	10,000	P	S	0	1	T	0	4				
5	8	K	0	0	5	10,000	P	S	0	1	T	0	4				
5	9	K	0	0	6	10,000	P	S	0	1	T	0	4				
6	0	K	0	0	7	10,000	P	S	0	1	T	0	4				
6	1	K	0	0	8	10,000	P	S	0	1	T	0	4				
6	2	K	0	0	9	10,000	P	S	0	1	T	0	4				
6	3	K	0	1	0	10,000	P	S	0	1	T	0	4				
6	4	K	0	1	4	10,000	P	S	0	1	T	0	4				
6	5	K	0	1	6	10,000	P	S	0	1	T	0	4				
6	6	K	0	1	7	10,000	P	S	0	1	T	0	4				
6	7	K	0	1	8	10,000	P	S	0	1	T	0	4				
6	8	K	0	1	9	10,000	P	S	0	1	T	0	4				
6	9	K	0	2	0	10,000	P	S	0	1	T	0	4				
7	0	K	0	2	2	10,000	P	S	0	1	T	0	4				
7	1	K	0	2	3	10,000	P	S	0	1	T	0	4				
7	2	K	0	2	4	10,000	P	S	0	1	T	0	4				

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9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
7	3	K	0	2	5	10,000	P	S	0	1	T	0	4				
7	4	K	0	2	6	10,000	P	S	0	1	T	0	4				
7	5	K	0	2	8	10,000	P	S	0	1	T	0	4				
7	6	K	0	2	9	10,000	P	S	0	1	T	0	4				
7	7	K	0	3	0	10,000	P	S	0	1	T	0	4				
7	8	K	0	3	1	10,000	P	S	0	1	T	0	4				
7	9	K	0	3	2	10,000	P	S	0	1	T	0	4				
8	0	K	0	3	3	10,000	P	S	0	1	T	0	4				
8	1	K	0	3	4	10,000	P	S	0	1	T	0	4				
8	2	K	0	3	5	10,000	P	S	0	1	T	0	4				
8	3	K	0	3	6	10,000	P	S	0	1	T	0	4				
8	4	K	0	3	7	10,000	P	S	0	1	T	0	4				
8	5	K	0	3	8	10,000	P	S	0	1	T	0	4				
8	6	K	0	3	9	10,000	P	S	0	1	T	0	4				
8	7	K	0	4	0	10,000	P	S	0	1	T	0	4				
8	8	K	0	4	1	10,000	P	S	0	1	T	0	4				
8	9	K	0	4	2	10,000	P	S	0	1	T	0	4				
9	0	K	0	4	3	10,000	P	S	0	1	T	0	4				
9	1	K	0	4	8	10,000	P	S	0	1	T	0	4				
9	2	K	0	4	9	10,000	P	S	0	1	T	0	4				
9	3	K	0	5	0	10,000	P	S	0	1	T	0	4				
9	4	K	0	5	1	10,000	P	S	0	1	T	0	4				
9	5	K	0	5	2	10,000	P	S	0	1	T	0	4				
9	6	K	0	6	0	10,000	P	S	0	1	T	0	4				
9	7	K	0	6	1	10,000	P	S	0	1	T	0	4				
9	8	K	0	6	5	10,000	P	S	0	1	T	0	4				
9	9	K	0	6	9	10,000	P	S	0	1	T	0	4				
10	0	K	0	7	1	10,000	P	S	0	1	T	0	4				
10	1	K	0	8	4	10,000	P	S	0	1	T	0	4				
10	2	K	0	8	5	10,000	P	S	0	1	T	0	4				
10	3	K	0	8	6	10,000	P	S	0	1	T	0	4				
10	4	K	0	8	7	10,000	P	S	0	1	T	0	4				
10	5	K	0	8	8	10,000	P	S	0	1	T	0	4				
10	6	K	0	9	0	10,000	P	S	0	1	T	0	4				
10	7	K	0	9	3	10,000	P	S	0	1	T	0	4				
10	8	K	0	9	4	10,000	P	S	0	1	T	0	4				

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9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
0	9	K	0	9	5	10,000	P	S	0	1	T	0	4				
1	0	K	0	9	6	10,000	P	S	0	1	T	0	4				
1	1	K	0	9	7	10,000	P	S	0	1	T	0	4				
1	2	K	0	9	8	10,000	P	S	0	1	T	0	4				
1	3	K	0	9	9	10,000	P	S	0	1	T	0	4				
1	4	K	1	0	0	10,000	P	S	0	1	T	0	4				
1	5	K	1	0	2	10,000	P	S	0	1	T	0	4				
1	6	K	1	0	3	10,000	P	S	0	1	T	0	4				
1	7	K	1	0	4	10,000	P	S	0	1	T	0	4				
1	8	K	1	0	5	10,000	P	S	0	1	T	0	4				
1	9	K	1	0	6	10,000	P	S	0	1	T	0	4				
2	0	K	1	0	9	10,000	P	S	0	1	T	0	4				
2	1	K	1	1	0	10,000	P	S	0	1	T	0	4				
2	2	K	1	1	2	10,000	P	S	0	1	T	0	4				
2	3	K	1	1	3	10,000	P	S	0	1	T	0	4				
2	4	K	1	1	4	10,000	P	S	0	1	T	0	4				
2	5	K	1	1	5	10,000	P	S	0	1	T	0	4				
2	6	K	1	1	6	10,000	P	S	0	1	T	0	4				
2	7	K	1	1	7	10,000	P	S	0	1	T	0	4				
2	8	K	1	2	3	10,000	P	S	0	1	T	0	4				
2	9	K	1	2	5	10,000	P	S	0	1	T	0	4				
3	0	K	1	2	6	10,000	P	S	0	1	T	0	4				
3	1	K	1	3	2	10,000	P	S	0	1	T	0	4				
3	2	K	1	3	6	10,000	P	S	0	1	T	0	4				
3	3	K	1	4	1	10,000	P	S	0	1	T	0	4				
3	4	K	1	4	2	10,000	P	S	0	1	T	0	4				
3	5	K	1	4	3	10,000	P	S	0	1	T	0	4				
3	6	K	1	4	4	10,000	P	S	0	1	T	0	4				
3	7	K	1	4	5	10,000	P	S	0	1	T	0	4				
3	8	K	1	4	7	10,000	P	S	0	1	T	0	4				
3	9	K	1	4	8	10,000	P	S	0	1	T	0	4				
4	0	K	1	4	9	10,000	P	S	0	1	T	0	4				
4	1	K	1	5	0	10,000	P	S	0	1	T	0	4				
4	2	K	1	5	1	10,000	P	S	0	1	T	0	4				
4	3	K	1	5	6	10,000	P	S	0	1	T	0	4				
4	4	K	1	5	7	10,000	P	S	0	1	T	0	4				

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9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
4	5	K	1	5	8	10,000	P	S	0	1	T	0	4				
4	6	K	1	5	9	10,000	P	S	0	1	T	0	4				
4	7	K	1	6	0	10,000	P	S	0	1	T	0	4				
4	8	U	0	0	1	10,000	P	S	0	1	T	0	4				
4	9	U	0	0	2	10,000	P	S	0	1	T	0	4				
5	0	U	0	0	3	10,000	P	S	0	1	T	0	4				
5	1	U	0	0	4	10,000	P	S	0	1	T	0	4				
5	2	U	0	0	5	10,000	P	S	0	1	T	0	4				
5	3	U	0	0	9	10,000	P	S	0	1	T	0	4				
5	4	U	0	1	0	10,000	P	S	0	1	T	0	4				
5	5	U	0	1	1	10,000	P	S	0	1	T	0	4				
5	6	U	0	1	2	10,000	P	S	0	1	T	0	4				
5	7	U	0	1	4	10,000	P	S	0	1	T	0	4				
5	8	U	0	1	5	10,000	P	S	0	1	T	0	4				
5	9	U	0	1	6	10,000	P	S	0	1	T	0	4				
6	0	U	0	1	7	10,000	P	S	0	1	T	0	4				
6	1	U	0	1	8	10,000	P	S	0	1	T	0	4				
6	2	U	0	1	9	10,000	P	S	0	1	T	0	4				
6	3	U	0	2	1	10,000	P	S	0	1	T	0	4				
6	4	U	0	2	2	10,000	P	S	0	1	T	0	4				
6	5	U	0	2	4	10,000	P	S	0	1	T	0	4				
6	6	U	0	2	5	10,000	P	S	0	1	T	0	4				
6	7	U	0	2	6	10,000	P	S	0	1	T	0	4				
6	8	U	0	2	7	10,000	P	S	0	1	T	0	4				
6	9	U	0	2	9	10,000	P	S	0	1	T	0	4				
7	0	U	0	3	0	10,000	P	S	0	1	T	0	4				
7	1	U	0	3	1	10,000	P	S	0	1	T	0	4				
7	2	U	0	3	4	10,000	P	S	0	1	T	0	4				
7	3	U	0	3	6	10,000	P	S	0	1	T	0	4				
7	4	U	0	3	7	10,000	P	S	0	1	T	0	4				
7	5	U	0	3	9	10,000	P	S	0	1	T	0	4				
7	6	U	0	4	1	10,000	P	S	0	1	T	0	4				
7	7	U	0	4	2	10,000	P	S	0	1	T	0	4				
7	8	U	0	4	3	10,000	P	S	0	1	T	0	4				
7	9	U	0	4	4	10,000	P	S	0	1	T	0	4				
8	0	U	0	4	5	10,000	P	S	0	1	T	0	4				

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EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
18	1	U	0	4	6	10,000	P	S	0	1	T	0	4				
18	2	U	0	4	7	10,000	P	S	0	1	T	0	4				
18	3	U	0	4	8	5,000	P	S	0	1	T	0	4				
18	4	U	0	4	9	5,000	P	S	0	1	T	0	4				
18	5	U	0	5	1	5,000	P	S	0	1	T	0	4				
18	6	U	0	5	3	5,000	P	S	0	1	T	0	4				
18	7	U	0	5	5	5,000	P	S	0	1	T	0	4				
18	8	U	0	5	6	5,000	P	S	0	1	T	0	4				
18	9	U	0	5	7	5,000	P	S	0	1	T	0	4				
19	0	U	0	5	8	5,000	P	S	0	1	T	0	4				
19	1	U	0	5	9	5,000	P	S	0	1	T	0	4				
19	2	U	0	6	3	5,000	P	S	0	1	T	0	4				
19	3	U	0	6	4	5,000	P	S	0	1	T	0	4				
19	4	U	0	6	6	5,000	P	S	0	1	T	0	4				
19	5	U	0	6	7	5,000	P	S	0	1	T	0	4				
19	6	U	0	6	8	5,000	P	S	0	1	T	0	4				
19	7	U	0	7	0	5,000	P	S	0	1	T	0	4				
19	8	U	0	7	1	5,000	P	S	0	1	T	0	4				
19	9	U	0	7	2	5,000	P	S	0	1	T	0	4				
20	0	U	0	7	3	5,000	P	S	0	1	T	0	4				
20	1	U	0	7	4	5,000	P	S	0	1	T	0	4				
20	2	U	0	7	5	5,000	P	S	0	1	T	0	4				
20	3	U	0	7	6	5,000	P	S	0	1	T	0	4				
20	4	U	0	7	7	5,000	P	S	0	1	T	0	4				
20	5	U	0	7	8	5,000	P	S	0	1	T	0	4				
20	6	U	0	7	9	5,000	P	S	0	1	T	0	4				
20	7	U	0	8	0	5,000	P	S	0	1	T	0	4				
20	8	U	0	8	1	5,000	P	S	0	1	T	0	4				
20	9	U	0	8	2	5,000	P	S	0	1	T	0	4				
21	0	U	0	8	3	5,000	P	S	0	1	T	0	4				
21	1	U	0	8	4	5,000	P	S	0	1	T	0	4				
21	2	U	0	8	5	5,000	P	S	0	1	T	0	4				
21	3	U	0	8	9	5,000	P	S	0	1	T	0	4				
21	4	U	0	9	0	5,000	P	S	0	1	T	0	4				
21	5	U	0	9	1	5,000	P	S	0	1	T	0	4				
21	6	U	0	9	2	5,000	P	S	0	1	T	0	4				

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

	ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
									(1) PROCESS CODES (Enter Code)									
2	1	7	U	0	9	3	5,000	P	S	0	1	T	0	4				
2	1	8	U	0	9	4	5,000	P	S	0	1	T	0	4				
2	1	9	U	0	9	5	5,000	P	S	0	1	T	0	4				
2	2	0	U	1	0	1	5,000	P	S	0	1	T	0	4				
2	2	1	U	1	0	3	5,000	P	S	0	1	T	0	4				
2	2	2	U	1	0	5	5,000	P	S	0	1	T	0	4				
2	2	3	U	1	0	6	5,000	P	S	0	1	T	0	4				
2	2	4	U	1	0	8	5,000	P	S	0	1	T	0	4				
2	2	5	U	1	1	0	5,000	P	S	0	1	T	0	4				
2	2	6	U	1	1	1	5,000	P	S	0	1	T	0	4				
2	2	7	U	1	1	4	5,000	P	S	0	1	T	0	4				
2	2	8	U	1	1	5	5,000	P	S	0	1	T	0	4				
2	2	9	U	1	1	6	5,000	P	S	0	1	T	0	4				
2	3	0	U	1	1	7	5,000	P	S	0	1	T	0	4				
2	3	1	U	1	2	0	5,000	P	S	0	1	T	0	4				
2	3	2	U	1	2	1	5,000	P	S	0	1	T	0	4				
2	3	3	U	1	2	2	5,000	P	S	0	1	T	0	4				
2	3	4	U	1	2	4	5,000	P	S	0	1	T	0	4				
2	3	5	U	1	2	5	5,000	P	S	0	1	T	0	4				
2	3	6	U	1	2	6	5,000	P	S	0	1	T	0	4				
2	3	7	U	1	2	7	5,000	P	S	0	1	T	0	4				
2	3	8	U	1	2	8	5,000	P	S	0	1	T	0	4				
2	3	9	U	1	2	9	5,000	P	S	0	1	T	0	4				
2	4	0	U	1	3	0	5,000	P	S	0	1	T	0	4				
2	4	1	U	1	3	1	5,000	P	S	0	1	T	0	4				
2	4	2	U	1	3	2	5,000	P	S	0	1	T	0	4				
2	4	3	U	1	3	7	5,000	P	S	0	1	T	0	4				
2	4	4	U	1	3	8	5,000	P	S	0	1	T	0	4				
2	4	5	U	1	4	0	10,000	P	S	0	1	T	0	4				
2	4	6	U	1	4	1	5,000	P	S	0	1	T	0	4				
2	4	7	U	1	4	3	5,000	P	S	0	1	T	0	4				
2	4	8	U	1	4	6	5,000	P	S	0	1	T	0	4				
2	4	9	U	1	4	7	5,000	P	S	0	1	T	0	4				
2	5	0	U	1	4	8	5,000	P	S	0	1	T	0	4				
2	5	1	U	1	4	9	5,000	P	S	0	1	T	0	4				
2	5	2	U	1	5	0	5,000	P	S	0	1	T	0	4				

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

	Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
									(1) PROCESS CODES (Enter Code)									
2	5	3	U	1	5	1	5,000	P	S	0	1	T	0	4				
2	5	4	U	1	5	2	5,000	P	S	0	1	T	0	4				
2	5	5	U	1	5	3	5,000	P	S	0	1	T	0	4				
2	5	6	U	1	5	4	10,000	P	S	0	1	T	0	4				
2	5	7	U	1	5	5	5,000	P	S	0	1	T	0	4				
2	5	8	U	1	5	7	5,000	P	S	0	1	T	0	4				
2	5	9	U	1	5	8	5,000	P	S	0	1	T	0	4				
2	6	0	U	1	5	9	10,000	P	S	0	1	T	0	4				
2	6	1	U	1	6	1	10,000	P	S	0	1	T	0	4				
2	6	2	U	1	6	3	5,000	P	S	0	1	T	0	4				
2	6	3	U	1	6	4	5,000	P	S	0	1	T	0	4				
2	6	4	U	1	6	5	5,000	P	S	0	1	T	0	4				
2	6	5	U	1	6	6	5,000	P	S	0	1	T	0	4				
2	6	6	U	1	6	7	5,000	P	S	0	1	T	0	4				
2	6	7	U	1	6	8	5,000	P	S	0	1	T	0	4				
2	6	8	U	1	6	9	5,000	P	S	0	1	T	0	4				
2	6	9	U	1	7	0	5,000	P	S	0	1	T	0	4				
	7	0	U	1	7	1	5,000	P	S	0	1	T	0	4				
2	7	1	U	1	7	2	5,000	P	S	0	1	T	0	4				
2	7	2	U	1	7	3	5,000	P	S	0	1	T	0	4				
2	7	3	U	1	7	4	5,000	P	S	0	1	T	0	4				
2	7	4	U	1	7	6	5,000	P	S	0	1	T	0	4				
2	7	5	U	1	7	9	5,000	P	S	0	1	T	0	4				
2	7	6	U	1	8	0	5,000	P	S	0	1	T	0	4				
2	7	7	U	1	8	1	5,000	P	S	0	1	T	0	4				
2	7	8	U	1	8	2	5,000	P	S	0	1	T	0	4				
2	7	9	U	1	8	3	5,000	P	S	0	1	T	0	4				
2	8	0	U	1	8	4	5,000	P	S	0	1	T	0	4				
2	8	1	U	1	8	5	5,000	P	S	0	1	T	0	4				
2	8	2	U	1	8	6	5,000	P	S	0	1	T	0	4				
2	8	3	U	1	8	7	5,000	P	S	0	1	T	0	4				
2	8	4	U	1	8	8	5,000	P	S	0	1	T	0	4				
2	8	5	U	1	9	1	5,000	P	S	0	1	T	0	4				
2	8	6	U	1	9	2	5,000	P	S	0	1	T	0	4				
2	8	7	U	1	9	3	5,000	P	S	0	1	T	0	4				
2	8	8	U	1	9	4	5,000	P	S	0	1	T	0	4				

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
28	9	U	1	9	6	5,000	P	S	0	1	T	0	4				
29	0	U	1	9	7	5,000	P	S	0	1	T	0	4				
29	1	U	2	0	0	5,000	P	S	0	1	T	0	4				
29	2	U	2	0	1	5,000	P	S	0	1	T	0	4				
29	3	U	2	0	2	1,000	P	S	0	1	T	0	4				
29	4	U	2	0	3	1,000	P	S	0	1	T	0	4				
29	5	U	2	0	4	1,000	P	S	0	1	T	0	4				
29	6	U	2	0	6	1,000	P	S	0	1	T	0	4				
29	7	U	2	0	7	1,000	P	S	0	1	T	0	4				
29	8	U	2	0	8	1,000	P	S	0	1	T	0	4				
29	9	U	2	0	9	1,000	P	S	0	1	T	0	4				
30	0	U	2	1	0	1,000	P	S	0	1	T	0	4				
30	1	U	2	1	1	1,000	P	S	0	1	T	0	4				
30	2	U	2	1	3	1,000	P	S	0	1	T	0	4				
30	3	U	2	1	6	1,000	P	S	0	1	T	0	4				
30	4	U	2	1	7	1,000	P	S	0	1	T	0	4				
30	5	U	2	1	8	1,000	P	S	0	1	T	0	4				
-	0	6	U	2	2	0	5,000	P	S	0	1	T	0	4				
30	7	U	2	2	1	1,000	P	S	0	1	T	0	4				
30	8	U	2	2	2	1,000	P	S	0	1	T	0	4				
30	9	U	2	2	5	1,000	P	S	0	1	T	0	4				
31	0	U	2	2	6	10,000	P	S	0	1	T	0	4				
31	1	U	2	2	7	1,000	P	S	0	1	T	0	4				
31	2	U	2	2	8	10,000	P	S	0	1	T	0	4				
31	3	U	2	3	5	1,000	P	S	0	1	T	0	4				
31	4	U	2	3	7	1,000	P	S	0	1	T	0	4				
31	5	U	2	3	9	10,000	P	S	0	1	T	0	4				
31	6	U	2	4	0	1,000	P	S	0	1	T	0	4				
31	7	U	2	4	3	1,000	P	S	0	1	T	0	4				
31	8	U	2	4	4	1,000	P	S	0	1	T	0	4				
31	9	U	2	4	7	1,000	P	S	0	1	T	0	4				
32	0	U	2	4	8	1,000	P	S	0	1	T	0	4				
32	1	U	2	4	9	1,000	P	S	0	1	T	0	4				
32	2	U	2	7	1	1,000	P	S	0	1	T	0	4				
32	3	U	2	7	7	1,000	P	S	0	1	T	0	4				
32	4	U	2	7	8	1,000	P	S	0	1	T	0	4				

EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
3	2	5	U	2	7	9	1,000	P	S	0	1	T	0	4			
3	2	6	U	2	8	0	1,000	P	S	0	1	T	0	4			
3	2	7	U	3	2	8	1,000	P	S	0	1	T	0	4			
3	2	8	U	3	5	3	1,000	P	S	0	1	T	0	4			
3	2	9	U	3	5	9	1,000	P	S	0	1	T	0	4			
3	3	0	U	3	6	4	1,000	P	S	0	1	T	0	4			
3	3	1	U	3	6	5	1,000	P	S	0	1	T	0	4			
3	3	2	U	3	6	6	1,000	P	S	0	1	T	0	4			
3	3	3	U	3	6	7	1,000	P	S	0	1	T	0	4			
3	3	4	U	3	7	2	1,000	P	S	0	1	T	0	4			
3	3	5	U	3	7	3	1,000	P	S	0	1	T	0	4			
3	3	6	U	3	7	5	1,000	P	S	0	1	T	0	4			
3	3	7	U	3	7	6	1,000	P	S	0	1	T	0	4			
3	3	8	U	3	7	7	1,000	P	S	0	1	T	0	4			
3	3	9	U	3	7	8	1,000	P	S	0	1	T	0	4			
3	4	0	U	3	7	9	1,000	P	S	0	1	T	0	4			
3	4	1	U	3	8	1	1,000	P	S	0	1	T	0	4			
	4	2	U	3	8	2	1,000	P	S	0	1	T	0	4			
3	4	3	U	3	8	3	1,000	P	S	0	1	T	0	4			
3	4	4	U	3	8	4	1,000	P	S	0	1	T	0	4			
3	4	5	U	3	8	5	1,000	P	S	0	1	T	0	4			
3	4	6	U	3	8	6	1,000	P	S	0	1	T	0	4			
3	4	7	U	3	8	7	1,000	P	S	0	1	T	0	4			
3	4	8	U	3	8	9	1,000	P	S	0	1	T	0	4			
3	4	9	U	3	9	0	1,000	P	S	0	1	T	0	4			
3	5	0	U	3	9	1	1,000	P	S	0	1	T	0	4			
3	5	1	U	3	9	2	1,000	P	S	0	1	T	0	4			
3	5	2	U	3	9	3	1,000	P	S	0	1	T	0	4			
3	5	3	U	3	9	4	1,000	P	S	0	1	T	0	4			
3	5	4	U	3	9	5	1,000	P	S	0	1	T	0	4			
3	5	5	U	3	9	6	1,000	P	S	0	1	T	0	4			
3	5	6	U	4	0	0	1,000	P	S	0	1	T	0	4			
3	5	7	U	4	0	1	1,000	P	S	0	1	T	0	4			
3	5	8	U	4	0	2	1,000	P	S	0	1	T	0	4			
3	5	9	U	4	0	3	1,000	P	S	0	1	T	0	4			
3	6	0	U	4	0	4	1,000	P	S	0	1	T	0	4			

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EPA ID Number | W | I | D | 0 | 2 | 3 | 3 | 5 | 0 | 1 | 9 | 2 |

OMB#: 2050-0024; Expires 12/31/2014

9. Description of Hazardous Wastes ***(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)***

.ne Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
								(1) PROCESS CODES (Enter Code)									(2) PROCESS DESCRIPTION (If code is not entered in 9.D.1)
6	1	U	4	0	7	1,000	P	S	0	1	T	0	4				
6	2	U	4	0	9	1,000	P	S	0	1	T	0	4				
6	3	U	4	1	0	1,000	P	S	0	1	T	0	4				
6	4	U	4	1	1	1,000	P	S	0	1	T	0	4				
6	5	D	0	2	0	10,000	P	S	0	1	T	0	4				

APPENDIX B

NOT USED

APPENDIX C

WPDES PERMIT FOR CONTAMINATED GROUNDWATER

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-3128
Telephone 414-263-8500
FAX 414-263-8716
TTY Access via relay - 711

January 7, 2009

TO: WPDES permittees regulated by Judith Gottlieb

I am retiring from state service, with my last office day on January 16, 2009. It has been my privilege as well as my job to work with many of you over a period of almost 30 years to protect and enhance the water resources in the Southeast Region.

In this time of budget shortfalls, it is hard to say when my position will be refilled. Until you hear otherwise, we ask municipal permittees to contact Jim Fratrick with any questions or concerns. Industrial permittees should contact Ted Bosch. Both Jim and Ted are at the SER headquarters building at 2300 N. Martin Luther King Jr Drive, so the address in the letterhead will work for them as it did for me.

My name will remain on the DMRs for some time to come, until a permanent assignment of my work area is made.

Industrial permittees should contact:

Ted Bosch, Wastewater Engineer
Theodore.Bosch@wisconsin.gov
414-263-8623

Municipal permittees should contact

Jim Fratrick, Watershed Coordinator
James.Fratrick@wisconsin.gov
414-263-8632

My best wishes to you in the years ahead. It has been a pleasure to know you and work with you.

Sincerely,

Judith Gottlieb

Judith E. Gottlieb
Wastewater Engineer
Milwaukee River Basin

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212-0436
FAX 414-263-8716
Telephone 414-263-8500
TTY Access via relay - 711

April 6, 2005

file ref: 268549600

C. A. Douthitt
Brenntag Great Lakes, LLC
4420 Harley Davidson Ave
Wauwatosa, WI 53222

Subject: Contaminated Groundwater Discharge Permit WI – 0046566-4

Dear Mr Douthitt:

I have reviewed your discharge monitoring report for the past three months along with the associated lab reports from Test America. I found you have been in compliance with the discharge limits and where the lab had reported less than detection the detection limits are reasonable.

The file shows you have been in substantial compliance with the permit discharge limits for several years. The permit authorizes a reduction in sample frequency is such situations. You may reduce your sample frequency to quarterly beginning this quarter.

If you have any questions please feel free to contact me at the above address, by phone at (414) 263-8623 or by E-mail at Theodore.Bosch@dnr.state.wi.us.

Sincerely

Theodore Bosch

Theodore Bosch
Wastewater Engineer

WISCONSIN
DEPT. OF NATURAL RESOURCES

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

GENERAL PERMIT TO DISCHARGE UNDER THE WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 283, Wisconsin Statutes, any facility discharging

CONTAMINATED GROUNDWATER FROM REMEDIAL ACTION OPERATIONS

located in the State of Wisconsin and meeting the applicability criteria listed in Section A of this General Permit, is permitted to discharge these wastewaters directly to surface waters of the state and/or indirectly to groundwaters of the state in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

State of Wisconsin Department of Natural Resources
For the Secretary

By Al Shea

Al Shea
Director, Bureau of Watershed Management

4/30/01

Date of Signature

EFFECTIVE DATE: May 01, 2001 **EXPIRATION DATE: March 31, 2006**

Table of Contents
For
Remedial Action Wastewater Discharge Pemit WPDES Permit No. WI-0046566-4

A. APPLICABILITY CRITERIA

1. **Facilities Covered.** This permit applies to discharges consisting solely of;

   (a) treated contaminated groundwater where the Department determines that the discharge complies with the provisions of Ch. 283, Wisconsin Statutes. Discharges that lower the water quality of exceptional resource waters (as defined in s. NR 102.11, Wisconsin Adm. Code) are allowed only in cases, such as preventing or correcting a public health or existing groundwater contamination problem, that meet the antidegradation requirements of Ch. NR 207, Wis. Adm. Code.

2. **Facilities Not Covered.** This permit does not apply to discharges:

   (a) to outstanding resource waters as defined in s. NR 102.10, Wis. Adm. Code. This permit does not authorize discharges that would lower the water quality of downstream outstanding resource waters.

   (b) to waters classified as a public water supply in Ch. NR 104, Wis. Adm. Code.

   (c) to wetlands, unless the Department determines that the facility's discharge meets the wetland protection requirements of Ch. NR 103, Wis. Adm. Code.

   (d) that contain pollutants that must be limited (as specified in s. NR 106.05, Wis. Adm. Code) to prevent harm to animals, aquatic life or human health. Except for lead, this permit is not applicable to remedial action discharges of contaminants to surface waters (such as, toxic metals, pesticides, priority pollutant GC/MS acids or base neutral compounds) where there is a need for permit limits based on site specific water quality criteria contained in Ch. NR 102 and NR 105, Wis. Adm. Code. Also, no discharge is allowed that would violate groundwater quality standards contained in Ch. NR 140, Wis. Adm. Code.

   (e) that add detectable quantities of any of the following 21 bioaccumulating toxic substances to the receiving waters:

alpha - BHC	4,4'-DDT	Polychlorinated Biphenlys (PCB)
beta - BHC	Dieldrin	Pentachlorobenzene
gamma - BHC (Lindane)	Hexachlorobenzene	Photomirex
delta - BHC	Hexachlorobutadiene	1,2,3,4-Tetrachlorobenzene
Chlordane	Mercury	1,2,4,5-Tetrachlorobenzene
4,4'-DDD	Mirex	2,3,7,8-Tetrachlorodibenzo-p-dioxin
4,4'-DDE	Octachlorostyrene	Toxaphene

   (f) that contain acrylonitrile. Discharges that have detectable quantities of acrylonitrile shall not be regulated by this permit, but by a separate WPDES permit specifically drafted for the discharge. This permit does not regulate acrylonitrile because of the very low water quality criteria, problems in treating the compound and the difficulties of obtaining an adequate analysis detection limit.

B. REQUIREMENTS FOR ALL COVERED DISCHARGERS

1. Treatment of Contaminated Groundwater

All discharges of contaminated groundwater, including pump test wastewaters, shall be treated for pollutant removal prior to discharge. The minimum level of treatment shall be equivalent to Best Available Treatment Economically Achievable as defined in section 301(b)(2) of the Clean Water Act and the corresponding section 283.13(2)(b) of the Wisconsin Statutes. The treatment units shall be adequately sized, designed, and operated to remove contaminants identified through sampling and characterization of the contaminated groundwater. Section 281.41, Wisconsin Statutes requires Department review and approval of construction plans and specifications for wastewater treatment systems. When treatment units for contaminated groundwater are supplier furnished package units, a minimum plan submittal would be a diagram, a summary of the design, and unit sizing calculations.

2. Discharge Management Plan

All discharges under this permit shall be consistent with a discharge management plan that has been approved in writing by the Department. The Department may exempt a facility from monitoring contaminants limited by this permit, if the permittee can demonstrate that the contaminants will not be present in the effluent discharge. The discharge management plan shall also include monitoring that will be used to confirm: (1) compliance with Best Available Treatment as specified in part B.1, above, (2) that there is no reasonable potential to exceed surface water quality standards listed in Ch. NR 105, Wis. Adm. Code, tables 1 through 9, or (3) that there is no reasonable potential to exceed groundwater quality standards listed in Ch. NR 140, Wis. Adm. Code, tables 1 through 3. The Department may also approve a management plan that specifies alternate monthly average effluent limitations (up to a level equivalent to a NR 140, Wis. Adm. Code, Enforcement Standard) for discharges to groundwaters.

3. pH Limit and Monitoring For Surface Water Discharges

The pH of all surface water discharges authorized by this permit shall be maintained within the range of 6.0 to 9.0 standard units. A grab sample shall be analyzed whenever treatment unit cleaning solutions are discharged, or when other activities could significantly change the pH of the water.

4. Sample Frequency Reduction

Discharges under this permit shall be sampled weekly during the first four weeks of discharge, and then sampled every two weeks. After three months, the Department may, by letter, authorize a monthly sampling frequency. Reduced sampling will only be allowed if the pollutant levels in the discharge are always well below permit limits, and there is little chance that influent pollutants may break through the treatment unit and violate permit limits. After reviewing a year of sample data, the Department may, by letter, reduce the sampling frequency to quarterly or semi-annually.

5. Analysis Test Methods

The following test methods shall be used for monitoring required by this permit unless an alternate, equivalent method is approved by a letter from the Department. EPA methods 602, 8020, 8021 or 8260 shall be used for determination of aromatic volatile hydrocarbons such as: benzene, ethylbenzene, toluene and total xylenes. EPA methods 601, 624, 8010, 8021, 8240 or 8260 shall be used for determination of other volatile organic compounds. EPA method 610 or 8310 (HPLC) shall be used for the determination of polynuclear aromatic hydrocarbons. EPA method 239.2 shall be used on unmodified effluent samples for the determination of total recoverable lead. EPA method 1664 (Standard Methods 17 edition, 2530 C) shall be used for determination of oil and grease. EPA Method 160.2 (Standard Methods 209 C) shall be used for determination of total suspended solids.

B. REQUIREMENTS FOR ALL COVERED DISCHARGES

6. **Cover Letter**

The Department shall inform the permittee of its determination of whether or not the proposed discharge is appropriately regulated by this general permit via a cover letter.

7. **Prevent Pond Overflow**

Except for controlled flow through a discharge structure, there shall be no overflow or above ground leakage of treatment pond dikes or berms.

8. **Inspection, Maintenance, and Documentation**

Separated contaminants, and solids if present, shall be removed on a periodic basis to maintain the treatment capacity and efficiency of the system. The water discharge side of the treatment unit shall be maintained clean and there shall be no contaminant sheen or scum on the equipment.

9. **Chlorine for Bacterial Control**

Chlorine may be used to control the growth of micro-organisms in the treatment system. The preferred chlorination system would be to clean and chlorinate the treatment unit when it is out of service, and then capture the cleaning wastewater for acceptable offsite disposal, such as a sanitary sewer. Alternatively, the cleaning wastewater may be treated to meet the chlorine residual limitation and to meet the total suspended solids limit of 40 mg/L, and then discharged under this permit. The discharge of previously chlorinated wastewater to surface waters under this permit shall not contain detectable amounts of Total Residual Chlorine as determined by using Standard Methods #408B, D or E (DPD titration or colorimetric), EPA method 330.3, or by using an ion specific electrode approved in Ch. NR 219, Wis. Adm. Code. Other biocides may not be discharged under this permit.

10. **Approval of Water Treatment Additives**: Discharge of water treatment additives are prohibited under this general permit unless the water treatment additive use is approved, in writing, by the Department. Increases in the discharge quantity or the concentration of a water treatment additive requires a separate written approval from the Department. The Department shall apply s. NR 106.10(1)(a), Wis. Adm. Code, for surface water discharges, and the groundwater standards contained in ch. NR 140, Wis. Adm. Code, for groundwater discharges, to determine if use of a given water treatment additive is allowable. **The permittee shall provide the following information regarding water treatment additives to receive Department approval**:

(a) the commercial name of the additive, and the proposed frequency of use,

(b) the amount or concentration to be used, and the anticipated discharge concentration,

(c) for surface water discharges, at least one 48-hour LC50 or EC50 value for daphnia magna for the additive, and at least one 96-hour LC_{50} or EC_{50} value for either fathead minnow, rainbow trout, or bluegill for the additive.

C. ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS FROM REMEDIATION OF PETROLEUM PRODUCT CONTAMINATION

During the period beginning on May 1, 2001 and lasting until March 31, 2006, the permittee is authorized to discharge groundwater that has been treated for removal of petroleum products to surface waters of the state, subject to the following conditions. Discharges to surface waters includes discharges to storm sewers and drainage channels that convey wastewater to creeks, wetlands, streams, rivers and lakes.

1. **Where to Sample.** Unmodified samples representative of the water being discharged shall be collected after treatment and prior to mixing with the receiving water.

2. **Wastewater Testing\Discharge Management Plan.** As specified in part B.2 of this permit, the permittee shall test the discharge for all of the compounds listed in the table below unless the Department accepts a reduction of test parameters in a discharge management plan approval.

3. **Surface water effluent limits, discharge conditions and monitoring requirements** are specified below for discharges of groundwater that have been treated for removal of petroleum products.

Parameter	Effluent Limit	Sample Type	Sample Frequency	Test Method
Flow	-	Total Daily	See (a) below	See NR 218.05
Benzene	50 ug/L, Monthly Avg.	Grab	See (a) below	See (d) below
Total BETX[b]	750 ug/L, Daily Maximum	Grab[c]	See (a) below	See (d) below
MTBE	-	Grab	See (a) below	See (d) below
Polynuclear Aromatic Hydrocarbons[f]	0.1 ug/L, Monthly Avg.	Grab	See (a) below	See (d) below
Benzo(a)pyrene[e]	0.1 ug/L, Monthly Avg.	Grab	See (a) below	See (d) below
Naphthalene	70 ug/L, Monthly Avg.	Grab	See (a) below	See (d) below
Total Recoverable Lead[g]	50 ug/L, Daily Maximum	Composite	See (a) below	See (d) below
Total Recoverable Lead	ug/L[h], Weekly Average	Composite[i]	See (a) below	See (d) below
Total Recoverable Lead	mass/day[h], Weekly Average	Composite	See (a) below	See (d) below
Oil/Grease	10 mg/L, Daily Maximum	Grab	See (a) below	See (d) below
Total Suspended Solids[j]	40 mg/L, Daily Maximum	Grab	See (a) below	See (d) below

(a) **Sample Frequency.** See part B.4 of this permit for the required frequency of sampling.

(b) **BETX.** Demonstrate compliance with the BETX effluent limit by reporting the total sum of benzene, ethylbenzene, toluene and total xylenes concentrations of less than or equal to 750 ug/L.

(c) **Grab Sample.** A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two minute period.

(d) **Test Methods.** See part B.5 of this permit for the required analysis method.

(e) **Benzo(a)pyrene.** Compliance with the monthly average Benzo(a)pyrene limit of 0.1 ug/L may be demonstrated by using EPA method 610 or 8310 HPLC and reporting no detect, or by reporting a detected amounts of less than 0.1 ug/L.

C. ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS FROM REMEDIATION OF PETROLEUM PRODUCT CONTAMINATION

(f) **Polynuclear Aromatic Hydrocarbons.** Groundwater remediation of "heavier" products such as heating fuel, diesel fuel, jet fuel, and other similar substances may contain polynuclear aromatic hydrocarbons (PAH). Compliance with the monthly average PAH limit of 0.1 ug/L may be demonstrated by using EPA method 610 or 8310 HPLC, reporting no detect of any of the following 10 PAH compounds, or by reporting a sum of the detected amounts of less than 0.1 ug/L: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.

(g) **Lead Limits.** Compliance with lead limits listed in this permit shall be demonstrated by testing for total recoverable lead and reporting a result less than the limit.

(h) **Weekly Average Lead Limit.** The chronic lead concentration and mass limits are a function of the receiving water hardness as specified in s. NR 105.06, Wis. Adm. Code table 6, and the effluent average day design flow (Q_e), the receiving water background concentration (C_s), and the receiving water design flow (Q_s) as specified in s. NR 106.06(3), Wis. Adm. Code. To calculate the weekly average lead limit for this permit, the WQC variable in the s. NR 106.06(3), Wis. Adm. Code formula needs to be adjusted to reflect 1/3 of the remaining assimilative capacity to prevent significant lowering of water quality as specified in s. NR 207.04(2)(c)2, Wis. Adm. Code. Alternatively, the weekly average lead permit limits for discharges to streams can be calculated by using the following formulas:

$\underline{CTC} = e$ to the exponent (0.9662 * ln(receiving water hardness mg/L) - 1.1171),
Weekly Ave. Lead Limit (ug/L) = $[(C_s + 1/3\{CTC - C_s\}) * (Q_s + Q_e) - (Q_sC_s)] \div Q_e$
Q_s = ¼Stream $Q_{7,10}$ or alternate stream flow as specified in NR 106.06(3),
mass limit = concentration limit * Q_e * appropriate units conversion factor.

(i) **Composite Sample.** A composite lead sample means a combination of individual samples of equal volume taken at approximately equal intervals (not exceeding one hour) over a three hour time period of normal facility operation.

(j) **Total Suspended Solids.** Monitoring for Total Suspended Solids shall be required at sites where there is a discharge of equipment cleaning wastewaters, or when groundwater is pumped from open pits or trenches.

D. ADDITIONAL REQUIREMENTS FOR DISCHARGES TO SURFACE WATERS FROM REMEDIATION OF VOLATILE ORGANIC COMPOUND CONTAMINATION

During the period beginning on May 1, 2001 and lasting until March 31, 2006, the permittee is authorized to discharge groundwater that has been treated for removal of volatile organic compounds to surface waters of the state, subject to the following conditions. Discharge to surface waters includes discharges to storm sewers and pipes that convey wastewater to wetlands, creeks, streams, rivers and lakes in Wisconsin.

1. **Where to Sample.** Unmodified samples representative of the water being discharged shall be collected after treatment and prior to mixing with the receiving water.

2. **Wastewater Testing\Discharge Management Plan.** As specified in part B.2 of this permit, the permittee shall test the discharge for all of the compounds listed in the table below unless the Department accepts a reduction of test parameters in a discharge management plan approval.

3. **Surface water effluent limits, discharge conditions and monitoring requirements** are specified below for discharges of groundwater that have been treated for removal of volatile organic compounds.

Parameter	Effluent Limit	Sample Type	Sample Frequency	Test Method
Flow	-	Total Daily	See (a) below	See NR 218.05
Bromoform	120 ug/L, Monthly Avg.	Grab[(b)]	See (a) below	See (c) below
Carbon Tetrachloride	150 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Chloroform	120 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Dichlorobromomethane	120 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
1,2-Dichloroethane	180 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
1,1-Dichloroethylene	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Methyl Bromide	120 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Methyl Chloride	120 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
1,1,2,2-Tetrachloroethane	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Tetrachloroethylene	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
1,1,2-Trichloroethane	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
1,1,1-Trichloroethane	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Trichloroethylene	50 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Vinyl Chloride	10 ug/L, Monthly Avg.	Grab	See (a) below	See (c) below
Total Suspended Solids[(d)]	40 mg/L, Daily Maximum	Grab	See (a) below	See (c) below

(a) **Sample Frequency.** See part B.4 of this permit for the required frequency of sampling.

(b) **Grab Sample.** A grab sample means a single sample taken at one moment of time or a combination of several smaller samples of equal volume taken in less than a two minute period.

(c) **Test Methods.** See part B.5 of this permit for the required analysis methods.

(d) **Total Suspended Solids.** Monitoring for total suspended solids shall be required at sites where there is a discharge of equipment cleaning wastewaters, or when groundwater is pumped from open pits or trenches.

E. ADDITIONAL REQUIREMENTS FOR WASTEWATER INFILTRATION DISCHARGES TO GROUNDWATERS NOT IMPACTED BY THE REMEDIATION PROJECT CONTAMINANTS

During the period beginning on May 1, 2001 and lasting until March 31, 2006, the permittee is authorized to discharge wastewaters that have been treated for pollutant removal to groundwaters of the state, subject to the following conditions. A discharge to groundwater in Wisconsin includes wastewater infiltration from irrigation, drain fields, ditches, and seepage ponds that may impact water beneath the ground surface.

1. **Effluent Limitations For Discharges to Groundwater.** Best available wastewater treatment technology (see part B.1.) will be required to minimize the level of substances in the groundwater and to prevent exceedance of the groundwater preventive action limits (PAL) contained in tables 1 through 3 of Chapter NR 140, Wisconsin Administrative Code, to the extent that it is technically and economically feasible. Therefore, this permit establishes monthly average effluent limitations, that are equivalent to NR 140, Wis. Adm. Code, Preventive Action Limits. As specified in section E.3, below, there may be cases when the permittee can demonstrate, and the Department approves, that alternate effluent limitations be established.

2. **Where to Sample.** Compliance with the limitations established by this permit shall be demonstrated by sampling wastewater treatment system effluent prior to infiltration. However, in cases when alternate effluent limitations are through a discharge management plan approval (see part E.3, below), the Department may also require sampling of groundwater wells downgradient of the infiltration system to demonstrate compliance with NR 140 groundwater quality standards.

3. **Wastewater Testing\Discharge Management Plan.** The permittee shall test the discharge for all of the compounds listed in the paragraphs E.8 and E.9, below, unless the Department accepts a reduction of test parameters in a discharge management plan approval (see part B.2 of this permit). The Department may also approve, in the management plan, alternate monthly average effluent limits (up to a level equivalent to a NR 140, Wis. Adm. Code, Enforcement Standard) for discharges to groundwaters. Alternate effluent limits shall be justified by demonstrating: (1) that it is not technically or economically feasible to meet the permit limit, or (2) that other factors, such as dispersion or degradation, prevent the exceedance of a preventive action limit outside the groundwater design management zone. Alternate monthly average effluent limits accepted in the Department's discharge management plan approval would supersede the limits listed in paragraphs E.8 and E.9, below.

4. **Flow.** The total daily discharge volume shall be measured as specified in s. NR 218.05, Wis. Adm. Code, and shall be checked at the same frequency specified for chemical sampling specified in E.5, below.

5. **Sample Frequency.** See part B.4 of this permit for the required frequency of sampling.

6. **Test Methods.** See part B.5 of this permit for the required analysis methods.

7. **Compliance with Limits.** Compliance with the monthly average effluent limits may be demonstrated by reporting an analytical result less than the limit or by reporting a non-detected result at the appropriate level of detection using the analytical test methods specified in part B.5 or this permit.

E. ADDITIONAL REQUIREMENTS FOR WASTEWATER INFILTRATION DISCHARGES TO GROUNDWATERS NOT IMPACTED BY THE REMEDIATION PROJECT CONTAMINANTS

8. **Effluent Limitations for Petroleum Contaminants.** The following are monthly average effluent limitations for frequently detected petroleum contaminants. The limits are based on the need to meet treatment technology requirements and Ch. NR 140, Wis. Adm. Code, Preventive Action Limits in the groundwater:

Acetone	200 ug/L	Methyl isobutyl ketone	50 ug/L
Benzene	0.5 ug/L	Methyl tert-butyl ether	12 ug/L
Benzo(a)pyrene	0.02 ug/L	Naphthalene	8 ug/L
Benzo(b)fluoranthene	0.02 ug/L	Pyrene	50 ug/L
Chrysene	0.02 ug/L	Pyridine	2 ug/L
Ethylbenzene	140 ug/L	Styrene	10 ug/L
Ethylene Dibromide	0.005 ug/L	Tetrahydrofuran	10 ug/L
Fluoranthene	80 ug/L	Toluene	200 ug/L
Fluorene	80 ug/L	Trimethylbenzenes (combined 1,2,4 & 1,3,5)	96 ug/L
Lead	1.5 ug/L		
Methyl ethyl ketone	90 ug/L	Total BETX	750 ug/L

9. **Effluent Limitations for Chlorinated Volatile Organic Contaminants.** The following are monthly average effluent limitations for frequently detected chlorinated volatile organic compounds. The limits are based on the need to meet Ch. NR 140, Wis. Adm. Code, Preventive Action Limits in the groundwater.

1,1-Dichloroethane	85 ug/L	Chloromethane	0.3 ug/L
1,2-Dichloroethane	0.5 ug/L	Methylene Chloride	0.5 ug/L
1,1-Dichloroethylene	0.7 ug/L	Pentachlorophenol	0.1 ug/L
1,2-Dichloroethylene (cis)	7 ug/L	1,1,1,2-Tetrachloroethane	7 ug/L
1,2-Dichloroethylene (trans)	20 ug/L	1,1,2,2-Tetrachloroethane	0.02ug/L
1,2-Dichlorobenzene	60 ug/L	Tetrachloroethylene	0.5 ug/L
1,3-Dichlorobenzene	125 ug/L	1,1,1-Trichloroethane	40 ug/L
1,4-Dichlorobenzene	15 ug/L	1,1,2-Trichloroethane	0.5 ug/L
Carbon tetrachloride	0.5 ug/L	Trichloroethylene	0.5 ug/L
Chloroethane	80 ug/L	1,2,4-Trichlorobenzene	14 ug/L
Chloroform	0.6 ug/L	Vinyl Chloride	0.02 ug/L

F. ADDITIONAL REQUIREMENTS FOR DISCHARGES DESIGNED TO ENHANCE THE REMEDIATION OF IN-SITU CONTAMINANTS

During the period beginning on the May 1, 2001 and lasting until March 31, 2006, the permittee is authorized to use infiltration systems or underground injection wells to discharge wastewaters to enhance the in-situ remediation of contaminated soils, aquifers or groundwater, subject to the following conditions.

1. **Wastewater Treatment.** Best Available Wastewater Treatment (see part B.1.) will be required to minimize the level of contaminants discharged to the groundwater to the extent that it is technically and economically feasible and necessary to prevent exceedance of applicable groundwater standards contained in Ch. NR 140, Wis. Adm. Code, tables 1 through 3 or any temporary exemptions granted under s. NR 140.28 (5), Wisc. Adm. Code.

2. **Wastewater Testing\Discharge Management Plan.** The permittee shall test the discharge for all of the compounds listed in the part E.8 and E.9 of this permit, unless the Department accepts a reduction of test parameters in a discharge management plan approval (see part B.2 of this permit). The discharge management plan shall specify monitoring parameters for the water to be infiltrated or injected, and may also include groundwater monitoring that confirms that the groundwater protection requirements of Ch. NR 140, Wisconsin Administrative Code (including any s. NR 140.28 temporary exemption requirements) are being met.

3. **Effluent Limitations for Projects with no NR 140.28(5) Temporary Exemption.** When a temporary exemption under s. NR 140.28(5), Wis. Adm. Code has not been granted for an in-situ remediation project, the monthly average discharge limits for water to be infiltrated or injected shall be the same as those required in part E of this permit. Also, when no s. NR 140.28(5), Wis. Adm. Code temporary exemption has been issued, the concentration of nitrogen compounds in the injected or infiltrated water shall not exceed the following levels on a monthly average basis: nitrate-nitrogen 2 mg/L, ammonia-nitrogen 3 mg/L, and organic-nitrogen 3 mg/L.

4. **Requirements for Projects Granted an NR 140.28(5) Temporary Exemption.** The in-situ remediation process shall be conducted in compliance with the terms and conditions of the Department of Natural Resources approval under s. 292.31, Wisconsin Statutes and the temporary exemption granted under s. NR 140.28, Wisconsin Administrative code.

5. **Sample Frequency.** See part B.4 of this permit for the required frequency of sampling.

6. **Test Methods.** See part B.5 of this permit for the required analysis methods.

7. **Flow.** The total daily discharge volume shall be measured as specified in NR 218.05, Wisc. Adm. Code, and shall be checked at the same frequency specified in F.5, above.

8. **Compliance with Limits.** Compliance with the monthly average effluent limits may be demonstrated by reporting an analytical result less than the limit or by reporting a non-detected result of less than the level of detection using the analytical test methods specified in part B.5 of this permit.

9. **Remediation Control.** All infiltrated or injected substances shall be controlled such that clean-up of the contaminated media is achieved and the impacted area is not significantly expanded as a result of the proposed remedial activities.

10. **Degradation By-Products.** All by-products formed as a result of the remediation process shall be further degraded or removed if those by-products are found at concentrations which constitute a risk to either human health or the environment.

G. ADDITIONAL REQUIREMENTS FOR DISCHARGES OF AGRI-CHEMICAL REMEDIATION WATERS TO FARM FIELDS

During the period beginning on May 1, 2001 and lasting until March 31, 2006, the permittee is authorized to discharge contaminanted groundwater pumped from agricultural chemical remediation sites to groundwaters of Wisconsin via irrigation or spreading on farm fields, subject to the following conditions. The application of these wastewaters to the land shall be done in compliance with a Discharge Management Plan (see part B.2 of this permit) that has been approved by the Department.

1. **Wastewater Treatment**. Best available wastewater treatment (see part B.1.) will be required to minimize the level of substances in the groundwater and to prevent exceedance of the groundwater standards contained in Chapter NR 140, Wisconsin Administrative code, to the extent that it is technically and economically feasible.

2. **Label Restrictions**. Agri-chemical remediation wastewaters applied to farm fields shall be for the beneficial use of the crop, and any pesticide contribution shall be in accordance with the appropriate pesticide product label restrictions.

3. **Ponding and Runoff Prohibited**. The sprayed wastewater shall seep in as it is sprayed; wastewater ponding and runoff are prohibited. Should poor conditions, such as rain moistened soil create a tendency for ponding, the rate of spray shall be reduced until there is no ponding or runoff. No spraying is allowed on frozen soil. The wastewater must be kept out of all surface watercourses.

4. **Chloride loading**. The total pounds of chloride applied shall be limited to 340 pounds per acre per 2 year period.

5. **Nitrogen loading**. The total pounds of nitrogen (Nitrate+Ammonia+Organic - Nitrogen) applied shall be limited to nutrient needs of the cover crop minus any supplemental nitrogen fertilizer or manure applied.

6. **Sample Frequency**. See part B.4 of this permit for the required frequency of sampling.

7. **Test Methods**. See part B.5 of this permit for the required analysis methods.

8. **Flow**. The total daily discharge volume shall be measured as specified in NR 218.05, Wis. Adm. Code, and shall be checked at the sample frequency specified in B.4 of this permit.

9. **No Detrimental Impact**. The discharge of substances in the remedial water shall not permanently impair future use of the affected soil, groundwater or aquifer.

H. STANDARD REQUIREMENTS FOR ALL DISCHARGERS

1. **NR 205, Wisconsin Administrative Code:** The conditions in ss. NR 205.07(1) and NR 205.07(3), Wis. Adm. Code, are included by reference in this permit. The permittee shall comply with all of these requirements, except for s. 205.07(1)(n), which does not apply to facilities covered under general permits. Selected s. 205.07 requirements are listed below for your convenience.

2. **Authorized Signature:** Reports, records, and monitoring results required by this permit shall be signed by the permittee's authorized representative as described in s. NR 205.07(1)(g).

3. **Inspection and Entry:** The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter the permittee's premises, to have access to records, and to inspect and monitor the discharge as described in s. NR 205.07(1)(d).

4. **Property Rights:** As set forth in s. NR 205.07(1)(c), this permit does not convey any property rights of any sort, or any exclusive privilege.

5. **Planned Changes:** The permittee shall report to the Department any facility expansion, production increase or process modifications which will result in new, different or increased discharges of pollutants as set forth in s. NR 205.07(3)(c).

6. **Spill Reporting for Hazardous Substances:** The permittee shall immediately notify the Department of an accidental release or spill of any hazardous substance to the environment as specified in ch. NR 706, Wis. Adm. Code.

7. **Permit Noncompliance Reporting:** The permittee shall, as required in s. NR 205.07(1)(s) and as set forth below, report by a telephone call, fax or e-mail to the Department's regional office within 24 hours, any WPDES permit noncompliance which may endanger health or the environment. A written report containing the details, as specified in NR 205.07(1)(s), about the noncompliance event shall also be submitted to the Department's regional office within 5 days, unless a waiver from this reporting has been granted by the Department.

8. **Unscheduled Bypassing:** Any unscheduled diversion or bypass of wastewater at the treatment works or collection system is prohibited except in the following cases:

   (a) an inadvertent bypass resulting from equipment damage or temporary power interruption;
   (b) an unavoidable bypass necessary to prevent loss of life or severe property damage; or
   (c) a bypass of excessive storm drainage or runoff which would damage any facilities necessary for compliance with the effluent limitations and prohibitions of the permit;

9. **Unscheduled Bypass Reporting:** Within 24 hours, the permittee shall report any unscheduled bypass event by a telephone call, fax or e-mail to the Department's regional office. A written report containing the unscheduled bypass event details, as specified in NR 205.07(1)(u)3, shall also be submitted to the Department's regional office within 5 days, unless the Dept. has granted a waiver from this reporting.

10. **Scheduled Bypassing:** Any construction or maintenance activities which result in a bypass of wastewater from a treatment system are prohibited unless authorized by the Department in writing. Each request for approval of a scheduled bypass shall specify the following minimum information:

    (a) proposed date of the bypass, and evaluation of alternatives to bypassing;
    (b) estimated duration and volume of the bypass; and
    (c) measures to mitigate environmental harm that could be caused by the bypass;

H. STANDARD REQUIREMENTS FOR ALL DISCHARGERS

11. **Duty to Halt or Reduce Activity:** Upon failure or impairment of treatment facility operation, the permittee shall, as required in NR 205.07(3)(e) and to the extent necessary to maintain compliance with its permit, curtail production or wastewater discharges or both until the treatment facility operations are restored or an alternative method of treatment is provided.

12. **Water Quality Sampling and Testing Procedures:** Sampling and laboratory testing procedures shall be performed as specified in s. NR 205.07(1)(p) and as set forth below. Sampling and analysis of effluent samples shall be performed in accordance with chapters NR 218 and NR 219, Wis. Adm. Code respectively, and shall be performed by a laboratory certified or registered in accordance with the requirements of ch. NR 149, Wis. Adm. Code.

13. **Recording of Results:** For each effluent measurement or sample taken, the permittee shall record the following information as required in s. NR 205.07(1)(e):

    (a) The date, exact place, method and time of sampling or measurements;
    (b) The individual who performed the sampling or measurements;
    (c) The individual who performed the analysis and the date of analysis;
    (d) The analytical techniques or methods used; and
    (e) The results of the analysis.

14. **Retention and Submittal of Reports, Records and Monitoring Results:** The permittee shall retain records of all monitoring required by this permit and report monitoring results as set forth in secs. NR 205.07(1)(f) and (r) and as described below. Monitoring results shall be submitted to the Department on a Department form or an acceptable equivalent form, on a monthly basis, or during the month following analysis for less frequent monitoring requirements. The Department may approve (in writing) a quarterly or semi-annual reporting interval for periods (i.e. winter) when there is no discharge flow. Reports, records and monitoring results required by this permit shall be retained by the permittee for the duration of this permit, or for three years after collection, whichever is longer. All reports, records and monitoring requirements required by the permit shall be submitted to the Department office identified in the permit cover letter.

15. **Visible Foam and Floating Solids:** There shall be no discharge of floating solids or visible foam to surface waters in other than trace amounts.

16. **Continuation of an Expired General Permit:** As provided in NR 205.08(9), the terms and conditions of this general permit shall continue to apply until this general permit is reissued, revoked or an individual permit is issued for the discharge to which the general permit applied.

Fact Sheet Document for Wisconsin Discharge Permit
Contaminated Groundwater from Remedial Action Operations
Permit No. WI-0046566-4
April 2001

The Department has developed Generalized WPDES Permits (GP) that are designed to cover discharges from a class of facilities or industries whose wastewater discharges are similar in character. When a GP is issued, many facilities meeting its requirements may be covered under the same general permit. GP's currently exist for non-contact cooling water, groundwater remediations, non-metallic mining operations, landspreading of food processing wastewaters and fourteen other types of industrial operations.

The Department must send a cover letter notifying the facility that its discharge is appropriately covered under the general permit. Permittees **can not** decide to cover their own discharges under a general permit. If you wish to have coverage for a wastewater discharge, contact the regional DNR office to provide information about the discharge. Then the Department can decide on appropriate permit coverage.

GENERAL DESCRIPTION OF OPERATIONS COVERED

The remedial action general permit is being reissued to continue to provide a streamlined mechanism to regulate wastewater discharges from soil or groundwater remediation projects. Contaminated sites can pose a threat to public health or welfare. The Department continues to receive requests each year to discharge remediation wastewaters with minimal to significant contamination. In some cases, the requests are for a short duration discharge to verify the extent of contamination. In other cases, the requests are for longer term discharges to control plume migration or to remove contaminants from aquifers. These requests are often received with short lead times not conducive to the normal 180 day WPDES permit issuance process. In most cases, the goal is to remove pollutants from soils or aquifers to prevent migration.

SUMMARY OF MAJOR CHANGES FROM THE PERMIT THAT EXPIRED IN MARCH OF 2001

The following is a short listing of the major proposed changes to the expired remedial action general permit. For more detail on these changes and information on other less significant changes refer to the topic specific section later in this informational document.

Updated List of Prohibited Bioaccumulators - Based on the Federal Great Lakes Criteria (which Wisconsin has adopted into NR 105 and NR 106, Wis. Adm. Code), the revised permit excludes discharges adding detectable quantities of any of the 21 bioaccumulating compounds. The list of bioaccumulators in the previous permit has been changed to include delta BHC, 4,4'-DDT, 4,4' DDE, Mirex, Photomirex, Hexachlorobutadiene, Octachlorostyrene and 1,2,3,4 Tetrachlorobenzene. The following compounds have been removed from the bioaccumulators list: Acrolein, Tech-BHC, 3,3-Dichlorobenzidine, Endosulfan, Endrin, Fluoranthene, Heptachlor and 2,4,6-Trichlorophenol.

Additional Limits for Seepage of Wastewater - For seepage discharges, limits were added for the following compounds to meet groundwater standards: Benzo(b) fluoranthene-0.02 ug/L, Chrysene-0.02 ug/L, Fluoranthene-80 ug/L, Fluorene-80 ug/L, Pyrene-50 ug/L, Pyridine-2 ug/L, and combined 1,2,4 & 1,3,5 Trimethylbenzenes-96 ug/L. The Toluene limit was raised to 200 ug/L, and the 750 ug/L limit was included for Total BETX to seepage (total sum of Benzene, Ethylbenzene, Toluene and Xylenes).

New limits were also added for seepage discharges for the following non-petroleum volatile organic compounds: 1,2-Dichlorobenzene - 60 ug/L, 1,3-Dichlorobenzene - 125 ug/L, 1,4-Dichlorobenzene - 15 ug/L, 1,1,1,2 Tetrachloroethane - 7 ug/L, 1,2,4-Trichlorobenzene - 14 ug/L.

Updated Statutory References - The references to chapter 147 were changed to chapter 283 based on legislative renumbering.

Updated Standard Requirements - The standard requirements section (H) has been updated to make the requirements consistent with individual permits currently being issued by the Department. Definitions were added daily minimum, daily maximum, weekly average and monthly average discharge limitations. The bypass conditions were expanded to include requirements for planned and unplanned bypasses. Other minor editorial changes were made to improve readability of some of the conditions.

Written Approval of Additives - A new paragraph added to the section B allows the Department to approve (in writing) the use of non-biocide additives as long as water quality standards are protected.

PERMIT APPLICABILITY CRITERIA

Facilities Covered - This permit is applicable to discharges from remedial action operations where the extracted contaminated groundwater is treated for pollutant removal and the discharge will not have significant impacts on receiving surface or groundwaters. Discharges to exceptional resource waters are allowed because these projects are actions to cleanup an existing groundwater contamination problem, and they are often undertaken to correct a water supply public health problem as required in Ch. NR 207.03(2).

Facilities Excluded - Discharges to "**outstanding resource waters**" listed in NR 102.10 or **public water supply** sources listed in NR 104, such as Lake Superior, Lake Michigan and Lake Winnebago, are not authorized under this GP. These waters have more restrictive water quality criteria. Regulation of discharges to outstanding resource waters and water supply sources requires an specifically drafted permit which provides the oversight and discharge limitations necessary to protect these drinking water sources.

Facilities Excluded - Discharges are not covered under this permit if they do not meet the **wetland protection** requirements of ch. NR 103, Wis. Adm. Code. For discharges that impact wetlands, a facility will need to submit information that allows the Department to determine if a discharge meets NR 103 code requirements.

Facilities Excluded - Discharges that have a potential to contain detectable quantities of **acrylonitrile** shall not be regulated by this permit. Such a discharge should be regulated by a separate WPDES permit specially drafted for the discharge. This permit does not regulate acrylonitrile because of the very low water quality criteria, problems in treating the compound and the difficulties of obtaining adequate analysis detection limits.

Facilities Excluded - Remediation sites are not eligible for this GP if any of the 21 listed **bioaccumulating toxic substances** are detected in the wastewater effluent discharge from the site. This is a slight change from the previous permit which required that no bioaccumulators be detected at the remediation

site. It is felt that current activated carbon treatment technology can effectively remove these compounds in the rare case any may be found at a site.

Facilities Excluded - Discharges containing pollutants in quantities which must be limited (as specified in s. NR 106.05, Wis. Admin. Code) to prevent harm to aquatic life or human health are not eligible for this GP. Remedial action discharges will be evaluated by comparing the pollutant concentrations in the extracted groundwater with water quality criteria for fish and aquatic life acute or chronic effects, human threshold effects and human cancer effects. This evaluation for compliance with chapters NR 102, NR 105, NR 106, and NR 207, Wisconsin Administrative Codes, is performed with the help of a worksheet. For a simple hydrocarbon remediation wastewater with no detectable lead, the worksheet will make sure the discharge is not to an outstanding resource water or water supply source. For more complex cases, the worksheet will be filled in with assistance of a water quality specialist. This general permit shall only be used when the worksheet assisted water quality evaluation confirms that the permit limits are sufficiently restrictive to protect the receiving water quality. If contaminants are detected that are not specifically limited in the permit, the provisions of NR 106.05 shall be used to judge the reasonable potential for the contaminant to exceed any site specific water quality criteria. A separate WPDES permit shall be drafted on a case-by-case basis when a discharge contaminant level triggers a need for a additional limit or a limit that is more restrictive than that contained in the general permit.

LIMITATIONS FOR ALL DISCHARGERS

Wastewater Treatment - Wastewater treatment for pollutant removal is required for all discharges of contaminated groundwater, including pump test wastewaters. This treatment requirement is consistent with section 301(b)(2) of the Clean Water Act and the corresponding section 283.13 (2)(b) of the Wisconsin Statutes. The level of treatment shall be adequate to assure compliance with water quality standards or shall be equivalent to Best Available Treatment Economically Achievable (BAT), which ever is more restrictive. Section 281.41, Wis. Stats requires Department review and approval of wastewater treatment plans and specifications. When treatment units for contaminated groundwater are supplier furnished package units, a minimum plan submittal would be a diagram, a summary of the design, and unit sizing calculations.

Discharge Management Plan - The permit continues the requirement that the permittee submit a discharge management plan. The primary purpose of the management plan is to specify the contaminants that will be tested in the wastewater. The Department must conditionally approve, approve or reject the proposed discharge management plan. To comply with the permit, the facility must monitor the remediation discharges in compliance with a Department approved discharge management plan.

Compounds to be tested under the management plan come from three main areas, those limited in the GP, those designated to show effective pollutant removal, and other contaminants detected at low levels in the impacted groundwater. A large group of contaminants are directly limited in the permit; it is unlikely that any remediation project would have all of those contaminants. Through the management plan, the permittee can propose to eliminate monitoring for parameters limited in the permit if they have not been detected in the groundwater monitoring wells. The second need for monitoring is to document that

the treatment system is effectively removing contaminants. Often treatment effectiveness can be demonstrated by monitoring contaminants limited in the permit. However, there are cases when the primary remediation contaminants are not limited in the permit (for example, 1,1 Dichloroethane). In that case monitoring for those contaminants should be included in the management plan. The third need for monitoring data occurs when, in the site characterization, there are confirmed detects of other contaminants with water quality criteria listed in NR 105, Tables 1 through 9 or NR 140, Tables 1 through 3. To qualify to discharge under this permit, the levels of these compounds in the discharge must be low enough (as specified in NR 106.05) that no site specific water quality limits are required. However, monitoring should be specified to confirm that these pollutants will not exceed any surface or groundwater levels of concern.

Other components of the Discharge Management Plan would be details on sampling procedures, analysis methods, procedures for disposing of tower cleaning wastewaters, or proposals to establish alternate effluent limitations for wastewater infiltration discharges. Alternate groundwater limits are discussed further in the groundwater discharge section of this briefing memo.

Monitoring Frequency - The sampling frequency requirements were maintained from the previous permit (start at weekly, then reduced by letter from the DNR), except that an option for semi-annual sampling was added. Semi-annual sampling may be appropriate for stable, older remediation projects where there is a certainty that compliance with effluent limits will be maintained. The remediation and redevelopment program is also adding an option for semi-annual monitoring well sampling for sites nearing close-out.

Other Permits - The permittee is responsible for obtaining other necessary Federal, State or local approvals or permits for the remediation project. For example, any work performed below, or within 500 feet of the ordinary high water mark of navigable waters, in wetland areas, or within areas subject to local floodplain and shoreland regulations, must conform to all such county or local ordinances. Also, other applicable state permits and/or contracts required by Chapters 30, 31, and 87, Wis. Statutes would need to be obtained. The emission of Volatile Organic Contaminants from air stripping of contaminated groundwater shall be either approved, exempted from, or in compliance with a DNR air emission permit.

Treatment Equipment and Maintenance - Considering the type of pollutants that may be regulated under this permit, it is necessary that treatment equipment be in place and maintained to mitigate possible variations in discharge and effluent quality. All removed substances shall be disposed of in accordance with NR 205.07 (3)(a). Documentation records of the disposal operation shall be maintained on site for the life of the permit.

Pond Overflow or Leakages - The integrity of the containment area must be maintained. Overflows or leakage through dikes or berms may cause sloughing or washouts.

Total Residual Chlorine - Occasionally, air-stripping towers or activated carbon treatment units may become clogged from the growth of micro-organisms. This is especially true when there are nitrogen and phosphorus nutrients in the water. The oxygen rich, warm and wet environment in the treatment unit can be a great place for bacteria or fungi to grow. As the unit becomes clogged, the pollutant

removal decreases until not enough water will flow through the unit. Then it must be cleaned to restore treatment efficiency. Acids, bases or biocides, such as chlorine, may be used to clean the growth of micro-organisms out of the treatment system. The preferred system would be to clean the treatment unit when it is out of service, and then capture the cleaning wastewater for acceptable offsite disposal, such as a sanitary sewer.

Alternatively, if the pH is between 6 and 9 S.U. and the biocide is chlorine only, the cleaning wastewater may be treated for removal of suspended solids (to less than 40 mg/L), and then discharged under this permit. The discharge of chlorinated water to surface waters shall not contain detectable amounts of Total Residual Chlorine using Standard Methods #408B, D or E (DPD titration or colorimetric), or by using an ion specific electrode approved in Ch. NR 219. The acute limit for total chlorine residual is 37 ug/L and the chronic criteria is 7 ug/L. Since both of these limits are lower than the detection limits for the methods listed above, the permit requires no detect of chlorine residual. All other biocides may not be discharged under this permit.

Other Water Treatment Additives - Water treatment additives vary from innocuous to highly toxic. This permit allows the use of water treatment compounds which are innocuous for the most part. Many water treatment additives are used primarily to control corrosion or prevent deposition of scale forming materials and do not exhibit any residual toxic effects on receiving waters.

Only additives that have been reviewed and approved in writing by the Department may be discharged under this permit. Facilities are required to submit information regarding the toxicity of the additive and the proposed treatment regime so that the Department can determine if it is allowable and won't negatively impact aquatic life or groundwater. For surface water dischargers, the toxological information needed is (at least) one 48-hour LC_{50} or EC_{50} value for daphnia magna or ceriodaphnia dubia, and (at least) one 96-hour LC_{50} or EC_{50} value for either fathead minnow, rainbow trout or bluegill. This toxicity information is often provided in the Material Safety Data Sheet (MSDS).

In some cases, chemical manufacturers provide LC_{50} or EC_{50} values only for the active ingredient or a component of the product. It is not possible for the Department to ascertain the toxicity of the **whole product** on the basis of LC_{50} or EC_{50} values for product constituents. This is because of the potential for synergistic effects of the other constituents of the product to affect the whole product toxicity. If the facility is unable to provide the whole product toxicity, and the Department's additive database does not have the toxicity information, the facility will not be able to have the additive approved for discharge under the permit.

Changing the types or quantity of additives discharged must also be approved by the Department in writing. Changes in additive use will change the wastewater discharge characteristics and could impact aquatic life or groundwater. Except for chlorine, the use of biocide water treatment additives requires regulation by an individual permit due to the toxic effectiveness of the compounds.

DISCHARGES OF PETROLEUM REMEDIATION WASTEWATERS TO SURFACE WATERS

Treatment Based Limits - As authorized by NR 220.21, the permit contains limits for petroleum product remediation wastewater that represents Best Available

Treatment (BAT) in the professional judgement of the Department. These limits are based upon readily available air stripping and oil/water separator treatment technology. The limits for **benzene and BETX** (the sum of benzene, ethylbenzene, toluene and total xylenes) are the same as the expired permit. It is thought the treatment level required to meet the benzene and BETX limits will adequately remove other volatile petroleum product constituents. The permit also contains a limitation for Napthalene at 70 ug/L and a requirement to monitor for MTBE (Methyl Tert Butyl Ether), an oxidant gasoline additive.

Other Petroleum Limits - Groundwater from remediation of "heavier" products such as heating fuel, diesel fuel, jet fuel, and other similar petroleum products may contain **polynuclear aromatic hydrocarbons**. The restrictive limit for polynuclear aromatic hydrocarbons (PAH's) is retained from the previous permit. Efficient free product separation is also required to remove the heavier petroleum product constituents. The general permit PAH limits of 0.1 ug/L were developed based on the potential carcinogenic effects and the judgement that this low effluent level is achievable with activated carbon treatment. Benzo(a)pyrene is limited individually at 0.1 ug/L based on this compound having the most toxological data. The PAH group criteria applies to the following compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. The permit requires that the sum of the detected amounts of any of these 10 polynuclear aromatic hydrocarbons in the group to be less than 0.1 ug/L. Alternatively, the permittee can demonstrate compliance with the limit if there is no detection of these compounds using EPA methods 610 or 8310 High Pressure Liquid Chromatography.

A more restrictive site specific permit shall be drafted for a direct discharge of benzene or polynuclear aromatic hydrocarbons to waters, such as the Great Lakes or Lake Winnebago, that are classified as public drinking water sources.

Lead Limitations - The permit contains limits for total recoverable lead based on the number of remediation projects detecting significant amounts of lead in the wastewater. The permittee should report the test results for total recoverable lead. The **daily maximum lead limit** of 50 ug/L is thought to represent a reasonably achievable treatment technology limit for all discharges. Experience to date has indicated that the form of lead in gasoline, tetra ethyl lead, is strongly attached to fine sediment particles that may be removed from the aquifer by pumping. Therefore, it is believed that efforts to remove the fine sediment particles will be needed to control total recoverable lead in discharges from leaded gasoline remediation projects.

The permit also contains **weekly average lead limits** that can be quite restrictive for low flow receiving waters. Chronic lead concentration and mass limits are needed due to the wide range of receiving water flows that can be encountered for these discharges. The weekly average lead limit is a function of: the receiving water hardness as specified in NR 105.06 table 6 (revision 8/97), the effluent average day design flow (Q_e), the receiving water background concentration (C_s), and the receiving water design flow (Q_s) as specified in NR 106.06(3). To calculate the weekly average lead limit for the general permit, the WQC variable in the NR106.06(3) formula needs to be adjusted to reflect 1/3 of the assimilative capacity to prevent significant lowering of water quality per NR 207.04(2)(c)2. Separate formulas in are provided in NR 106.06(3) for

discharges to streams and discharges to lakes. Since most of the discharges are to streams, the permit also provides formulas to calculate the weekly average lead permit limits for streams directly. Department staff will need to assist the permittee with the calculation of the weekly average lead limits. The result of the lead limit calculation should be reported in writing (possibly in the cover letter) to make sure there is no confusion over the correct calculation result. The average day effluent design flow should be used for Q_e in the calculation. This should be a stable number because remediation projects are usually designed for a certain groundwater withdrawal pumping rate to control plume migration.

DISCHARGES OF VOLATILE ORGANIC COMPOUNDS TO SURFACE WATERS

Treatment - This permit requires effective treatment, such as air stripping or activated carbon adsorption, for all discharges containing volatile organic chemicals. The Clean Water Act requires effective treatment to minimize the discharge of contaminants into waters of the state, even when the untreated wastewater could meet the limits listed above. This requirement for wastewater treatment will assure compliance with Wisconsin Water Quality Standards listed in NR 105, Wis. Adm. Code in almost all cases. When more restrictive water quality based effluent limits are needed, such as for direct discharges of certain VOC contaminants to warm or cold water streams that have very low mean annual flows, a site specific WPDES permit shall be individually drafted to regulate the discharge.

Unchanged Limits - The limits for volatile organic compounds are the same as those in the previous permit. These limits represent effluent concentrations judged to be achievable with a well designed air stripper.

Water Quality Evaluation - Department staff need to evaluate discharges from volatile organic compound (VOC) remediation projects. GP limits need to be compared with Wisconsin's water quality criteria for the priority pollutant VOC's. The human threshold and human cancer criteria are from Ch. NR 105, and the fish and aquatic life acute criteria are from EPA documents. To get an idea of what concentrations are reasonably achievable with available treatment technology, the final BAT regulations for the Organic Chemicals point source category (52 CFR 42582, November 5, 1987) were referenced. The limits chosen for this general permit were designed to be achievable with available treatment technology, and be restrictive enough to meet water quality standards (NR 105, 106 and 207) in almost all cases.

VOC Limits Restrictive Enough - The impact of the remediation site discharge on the receiving surface water quality must be evaluated for each request to discharge under this section of the permit. This evaluation will be checked by Water Quality staff in all cases. Four main things must be known to determine if the general permit limits are sufficiently restrictive to protect surface water quality: a characterization of the pollutants in the discharge, the discharge average day design flow rate, the receiving water classification, and the surface water mean annual flow. It is assumed that the stream background concentration of VOC's is zero due to stream turbulence and bio-degradation. The expected pollutant concentration after mixing with the receiving water mean annual flow must be compared with 1/3 of the water quality criteria (to prevent significant lowering of water quality per NR 207) for the aquatic or use classification.

For **example**, the general permit limit for carbon tetrachloride may not be sufficiently restrictive to prevent significant lowering of water quality when a trout stream mean annual flow is less than 45 times the discharge average day design flow rate. For a dilution/mixing ratio of 20, the general permit limit of 150 ug/L would result in a theoretical carbon tetrachloride concentration after mixing in the stream of 7.5 ug/L. In this case, 7.5 ug/L is greater than 1/3 of the water quality criteria (3.3 ug/L), and that would result in significant lowering of water quality as defined in NR 207. As long as treatment to meet this limit is technically and economically achievable, the GP should not be used for this discharge. An individual, site specific permit should be drafted with a carbon tetrachloride limit of 3.3 ug/L.

If there is no economically achievable treatment system that can meet this limit, the general permit could be used to allow a mixed cold water in-stream carbon tetrachloride concentration up to 10 ug/L (the whole assimilative capacity under the water quality criteria). An increase up to 10 ug/L of Carbon Tetrachloride in the stream could only be allowed if the treatment options and costs comparisons are evaluated as specified in NR 207.04(1)(d). If these documented treatment and cost evaluations allow significant lowering of water quality in the stream, the general permit limit would be protective up to a flow dilution/mixing ratio of 15.

DISCHARGES TO GROUNDWATER

Infiltration to Groundwaters not part of the Remediation Zone - When there are no surface water resources in the area or a significant part of the discharge would seep into the ground before entering a surface water, the impacts from remedial action discharges are regulated by NR 140, Wis. Adm. Code. In cases such as this, the general permit requires that the wastewater treatment system be designed to minimize the concentration of the pollutants in the groundwater to the extent that it is technically and economically feasible. Based on the requirement to minimize pollutant concentrations in the groundwater, the general permit establishes monthly average effluent limitations that are equivalent to NR 140 Preventive Action Limits. In other words, the effluent would have to meet limitations that are equivalent to PAL's at the end of the discharge pipe. Expressing the limit as a monthly average recognizes that any higher short term values would likely not be significant due to dispersion or mixing as the water flows through the ground.

Alternate Effluent Limits for Infiltration - The permit provides an opportunity for the permittee to propose and justify alternate effluent limitations (up to a level equal to NR 140 Enforcement Standards) in the Discharge Management Plan for infiltration discharges to groundwaters not part of the remediation zone. These discharge systems are eligible for a design management zone (DMZ) under NR 140. The permittee would have to show that the limits listed in the permit are not technically or economically achievable, or that factors (such as dispersion or degradation) would occur inside the design management zone. The Department can approve, conditionally approve or reject the proposed management plan. The results of a groundwater model would usually be needed to help demonstrate that dispersion or degradation would cause the groundwater to be less than the PAL outside the DMZ. Sampling of monitoring wells installed around the infiltration system may be required in the discharge management plan in cases when an alternate effluent limit is approved.

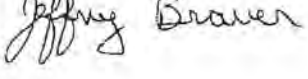
Remediation of In-situ Contaminants - The permit contains conditions that regulate infiltration or injection discharges that are part of in-situ bioremediation projects. Since the water being discharged almost always contains some contaminants, a discharge permit would be required. This part of the general permit is designed to meet the wastewater permitting needs for these projects. Efficient regulation of bioremediation projects requires coordination with Department staff in the remediation and redevelopment program.

Due to contaminant release or spill sites not being eligible for a design management zone, the requirements for these discharges were split between those meeting preventive action limits (PAL's) in the water prior to injection or infiltration, and other discharges that would be above the PAL's in the infiltrated or injected water. With no DMZ, discharge levels above the PAL's would require a temporary exemption issued in accordance with NR 140.28(5). The permit establishes effluent limitations that are equivalent to PAL's for projects that do not have a NR 140 temporary exemption. In cases where the discharge is above PAL's, detailed limitations and other requirements for a the in-situ remediation project can be specified in the NR 140.28(5) temporary exemption and the remedial action plan approved under s. 292.31, Wisconsin Statutes. The permit also contains other conditions and requirements, such as plume control and degradation by-product monitoring, for in-situ remediation projects that have been selected from the most recent environmental repair program guidance on in-situ bioremediation.

Agri-chemical Remediation Wastewaters - The permit contains conditions that regulate landspreading or spray irrigation of wastewaters from agri-chemical remediation projects. The extracted groundwater from these sites often contains pesticides, ammonia-nitrogen, nitrate-nitrogen, chlorides and phosphorus. Since the water being discharged contains contaminants, a discharge permit is required. Regulation of the discharges from agri-chemical remediation projects need to be coordinated with staff in the Department of Agriculture, Trade and Consumer Protection. The permit contains nitrogen and chloride loading limitations from NR 214, Wi. Adm. Code, that are consistent with the limits put on other dischargers to landspreading or spray irrigation. A ponding and runoff condition is also included due to the need to prevent wastewater from collecting in a localized area or entering a surface waterway. The permit requires that any agri-chemical remediation wastewaters spread on farm fields be applied for the beneficial use of the crop, and that any pesticide contribution from the remedial action water be in accordance with the appropriate pesticide product label restrictions.

Standard industrial wastewater permit conditions from NR 205 (reporting data, process changes, noncompliance, spills, etc.) are included as Part H of this permit. The permit is proposed to expire on March 31, 2006. Prior to permit expiration, the department will send a notice of proposed permit reissuance asking for public comment on the draft of the permit to be issued for the next 5 years.

Jeffrey W. Brauer, Environmental Engineer
Permits and Pretreatment Section
Bureau of Watershed Management
Brauej@DNR.STATE.WI.US
Madison, Wisconsin (608) 267-7643



APPENDIX D

NOTIFICATION TO GENERATORS

Brenntag Great Lakes

BRENNTAG

May 1, 2013

Dear Hazardous Waste Manager:

In compliance with the EPA and Wisconsin DNR rules, we wish to inform you that Brenntag Great Lakes, LLC. has added the EPA waste codes attached to our Waste Analysis Plan and Part A application.

The following attached list of E.P.A, waste codes we are currently licensed to accept. We cannot currently accept hazardous waste that would be properly shipped by any other code. E.P.A. waste codes from 40 CFR 261 that can be accepted are attached.

Please note that this letter is being sent to your organization in order to notify you of the waste types and applicable codes Brenntag Great Lakes, LLC can currently accept. This is simply a notification letter and should be placed in your files along with your other general waste information. A response from your company is not required.

I thank you for allowing Brenntag Great Lakes, LLC and myself to serve you. Should you have any questions please contact me at 262-252-6464.

Sincerely,
Brenntag Great Lakes, LLC

Judy Ninke

Judy Ninke
Manager of Environmental Services

Chicago, IL
4801 S. Austin Ave
Chicago, IL 60638
773-586-2000

Fort Wayne, IN
2529 Ferguson Road
Fort Wayne, IN 46809
260-478-9333

Des Moines, IA
1979 N.E. 54th Avenue
Des Moines, IA 50313
515-265-6019

Wauwatosa, WI
4420 N. Harley Davidson Ave
Wauwatosa, WI 53225
262-252-3550

St. Paul, MN
2130 Energy Park Drive
St. Paul, MN 55108
651-204-4300

Grand Rapids, MI
2751 Courier NW
Grand Rapids, MI 49544
616-453-9555

Omaha, NE
3720 D Street
Omaha, NE
402-731-1720

EPA Waste Codes Accepted at Brenntag Great Lakes

D001	F037	K085	U009	U077	U153	U220	U401
D004	F038	K086	U010	U078	U154	U221	U402
D005	F039	K087	U011	U079	U155	U222	U403
D006	K001	K088	U012	U080	U157	U225	U404
D007	K002	K090	U014	U081	U158	U226	U407
D008	K003	K093	U015	U082	U159	U227	U409
D009	K004	K094	U016	U083	U161	U228	U410
D010	K005	K095	U017	U084	U163	U235	U411
D011	K006	K096	U018	U085	U164	U237	
D012	K007	K097	U019	U089	U165	U239	
D013	K008	K098	U021	U090	U166	U240	
D014	K009	K099	U022	U091	U167	U243	
D015	K010	K100	U024	U092	U168	U244	
D016	K014	K102	U025	U093	U169	U247	
D017	K016	K103	U026	U094	U170	U248	
D018	K017	K104	U027	U095	U171	U249	
D019	K018	K105	U029	U101	U172	U271	
D020	K019	K106	U030	U103	U173	U277	
D021	K020	K109	U031	U105	U174	U278	
D022	K022	K110	U034	U106	U176	U279	
D023	K023	K112	U036	U108	U179	U280	
D024	K024	K113	U037	U110	U180	U328	
D025	K025	K114	U039	U111	U181	U353	
D026	K026	K115	U041	U114	U182	U359	
D027	K028	K116	U042	U115	U183	U364	
D028	K029	K117	U043	U116	U184	U365	
D029	K030	K123	U044	U117	U185	U366	
D030	K031	K125	U045	U120	U186	U367	
D031	K032	K126	U046	U121	U187	U372	
D032	K033	K132	U047	U122	U188	U373	
D033	K034	K136	U048	U124	U191	U375	
D034	K035	K141	U049	U125	U192	U376	
D035	K036	K142	U051	U126	U193	U377	
D036	K037	K143	U053	U127	U194	U378	
D037	K038	K144	U055	U128	U196	U379	
D038	K039	K145	U056	U129	U197	U381	
D039	K040	K147	U057	U130	U200	U382	
D040	K041	K148	U058	U131	U201	U383	
D041	K042	K149	U059	U132	U202	U384	
D042	K043	K150	U063	U137	U203	U385	
D043	K048	K151	U064	U138	U204	U386	
F001	K049	K156	U066	U140	U206	U387	
F002	K050	K157	U067	U141	U207	U389	
F003	K051	K158	U068	U143	U208	U390	
F004	K052	K159	U070	U146	U209	U391	
F005	K060	K160	U071	U147	U210	U392	
F006	K061	U001	U072	U148	U211	U393	
F024	K065	U002	U073	U149	U213	U394	
F025	K069	U003	U074	U150	U216	U395	
F034	K071	U004	U075	U151	U217	U396	
F035	K084	U005	U076	U152	U218	U400	

APPENDIX E

WASTE ANALYSIS PLAN AND REPRESENTATIVE WASTE ANALYSES

HAZARDOUS WASTE FACILITY WASTE ANALYSIS PLAN

[NR 670.014 (2)(c) and NR 664.0013 (2)]

BRENNTAG GREAT LAKES, LLC (WID 023 350 192)
HAZARDOUS WASTE STORAGE AND RECYCLING FACILITY
N59 W14706/N59 W14776 BOBOLINK AVENUE
MENOMONEE FALLS, WISCONSIN 53051

June 6, 2013

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EXHIBITS

Section 1
FACILITY DESCRIPTION

Brenntag Great Lakes, LLC (Brenntag) is a distributor of industrial solvents and chemicals. Brenntag operates a licensed Hazardous Waste Storage and Recycling Facility, at N59 W14706 and N59 W14776 Bobolink Avenue, Menomonee Falls. The recycling operations include fuel blending.

1.1 Description of Facility Processes and Activities

Waste solvents are transported to the storage and recycling facility by truck in bulk tankers or smaller containers. Containers are typically 55-gallon drums.

Waste solvents, which meet a minimum BTU content, may be blended with other similar waste materials and still bottoms into a supplemental fuel. The blended waste is shipped off-site to authorized facilities, such as cement kilns, where it is used as a secondary fuel. Other waste materials, falling below the minimum BTU content, are shipped off site to a licensed hazardous waste facility for disposal.

Brenntag also ships drums and bulk loads of hazardous waste to other licensed TSD Facilities, without any processing being performed at Brenntag.

1.2 Accepted Waste Codes

The types of wastes accepted at the Brenntag facility are primarily organic materials that are suitable for either fuel blending or reclamation. Brenntag does not accept corrosive wastes (pH $\leq$ 2.0 or $\geq$ 12.5) or reactive wastes. A list of the accepted waste codes is provided as Exhibit A.

1.3 Description of Waste Management Units

Wastes arriving at the facility in containers are transferred to the drum storage building.

Drums and totes of waste may also be vacuum pumped directly into tankers, which is now considered a fuel blending activity and is no longer an exempt process.
The following subsections provide further details on the hazardous waste storage and processing operations.

1.3.1 Container Storage

Drums and totes of waste material comply with the container standards as described in Section 2A, 2B and 2C of the Feasibility and Plan of Operation. When drums, totes or pails of waste material arrive at Brenntag, operations personnel take a representative sample from each waste stream for testing by the laboratory. Drums (and other containers) are removed from the enclosed semi-trailers with a fork-lift or hand truck. The waste is sampled and analyzed for parameters listed in the waste analysis plan. The

representative samples taken from each waste stream are also used to complete re-qualifications every two (2) years and to verify that the waste material entering the facility is not significantly different from the initial analysis/approval, which is on file in the computer system. Once the materials are accepted by the laboratory, the materials are then handled or processed. The following six types of drummed waste materials are handled at this facility:

A) Waste material for distillation off site (with the distillate for resale to any organization that can use it).

B) Waste material for distillation off site (with the distillate for direct return to the customer).

C) Waste materials for fuels blending (with suitable BTU value and substantial free liquids).

D) Waste materials (hard solids) for fuels blending with suitable BTU value and little or no free liquids. (These drums would be sent off site).

E) Liquid waste materials with low BTU value. (This material would be sent off site for treatment at a licensed facility).

F) Solid waste materials with low BTU value. (This material would be sent off site typically in drums to another TSD facility for further processing or to a licensed incinerator for incineration).

Drums and totes are immediately transferred to a trailer to ship out or placed into the racked storage area by a forklift truck.

Drums and totes of higher BTU liquid waste can also be transferred directly to tankers. Drums and totes are accumulated in the Drum Storage and Processing Building until there is a large enough quantity to justify calling for a tanker, which typically occurs once per week. Brenntag contracts with a fully DOT licensed transporter to supply a 6,000 gallon vacuum tanker. Only empty tankers are used and they are checked upon arrival at the site. Tankers that are not completely empty or still have remaining residue are rejected. All tanker loading activities take place within the tanker secondary containment area, which has a containment capacity of 6,000 gallons, plus 2.88 inches of freeboard. Upon arrival, Brenntag personnel conduct an inspection of the tanker and loading area to review the condition of the tanker, grounding cables, vacuum pump, hoses and containment area. A grounding cable is attached from the tanker to each drum or tote that is being loaded onto the tanker to prevent static discharge. The tote or drum is opened and a vacuum hose, equipped with a wand, is used to vacuum out the contents of each drum or tote. The container is immediately closed when vacuuming is complete.

All openings on the tanker must be kept closed during the vacuum process in order to maintain the proper vacuum flow condition into the tanker. The only air emission

source during liquid transfer is the exhaust from the vacuum pump. A liquid level control on the tanker indicates when the tanker is full. Upon completion, all hoses are capped and properly stored on the tanker and all hatches and valves are checked to make sure they are properly sealed for transport. Manifest forms are signed and the material is transported to an approved cement kiln that uses the waste material as a secondary fuel.

Empty drums are sent to an approved drum reconditioner for recycling or reconditioning into drums for reuse by Brenntag's solvent distribution facility or other drum customers. Totes that are rinsed and considered to be DOT emptied are reused on-site for waste product or sent for recertification. Poly totes from generators are only used once, are rinsed and cut up for proper disposal.

1.3.2 Tanker Storage

When bulk loads of waste material arrive at the facility, the operations personnel take a representative sample from each waste stream for testing by the laboratory. The sample is collected by slowly lowering a sampling rod into the tanker of material so that a representative sample can be obtained. Each bulk load of waste material entering the facility is sampled and analyzed for the parameters listed in the waste analysis plan. The representative samples taken from each waste stream are also used to complete requalifications every two (2) years and to verify that the waste material entering the facility is not significantly different from the initial analysis/approval on the computer system. Once the waste materials are accepted by the laboratory, the waste material is then handled or processed into a tanker using tanker pump and hoses. The following four types of bulk waste materials are handled at this facility

A) Waste material for distillation off site (with the distillate for resale to any organization that can use it).

B) Waste material for distillation off site (with the distillate for direct return to the customer).

C) Waste materials for fuels blending (with suitable BTU value).

D) Waste materials with low BTU value. (This material would be sent off site, typically in bulk, for treatment at a licensed facility.)

The waste material in the loaded tankers is tested for BTU, halogen content, water content, solids content, and pH before being approved for shipment to the secondary fuels facilities. All bulk outbound samples are consolidated and tested monthly.

Section 2
ANALYTICAL PARAMETERS AND RATIONALE FOR SELECTION
[NR 664.0013(2)(a)]

This facility is a licensed hazardous waste storage facility that performs fuel blending activities. It is not a licensed disposal site. The analytical parameters have been selected so that Brenntag can safely store wastes, and properly ship waste to an appropriate disposal site.

Waste materials are analyzed by Brenntag for the following purposes:

1) To qualify a waste stream from a generator prior to processing the initial shipment;

2) To periodically re-qualify a waste stream from a generator; and

3) To insure that an inbound waste can be safely handled and stored and it complies with the facility's hazardous waste storage permit.

2.1 Initial Waste Stream Qualification and Re-qualification

Prior to accepting an initial waste shipment from a generator, and periodically thereafter, the waste must be evaluated to determine if it can be managed at the Brenntag facility. The following steps must be completed in the evaluation and approval process:

- Generator must complete a Customer Profile Sheet;
- Generator must complete a TC Rule Certification/Recertification Form; and
- Brenntag must perform waste analyses.

The Customer Profile Sheet, completed and signed by the generator, provides the generator's location, billing information, EPA ID number, waste stream description, and estimated waste quantity. The Customer Profile Sheet is included in this plan as Exhibit B.

The TC Rule Certification/Recertification Form, completed and signed by the generator, provides information necessary to determine if a waste exhibits a characteristic of toxicity. This form is completed by the generator based upon their knowledge of the waste and the process generating the waste or by having the waste tested by a certified laboratory. If the waste is tested, the laboratory report must be attached to the form. A copy of the TC Rule Certification/Recertification Form is included in this plan as Exhibit C.

Occasionally, Brenntag allows on-site approvals of hazardous waste streams. This may happen if the customer is far away or if there is a spill and Brenntag is contacted to pick up the waste from the spill. Under this scenario, Brenntag will assign the waste a profile number, pick up the waste and bring it on-site, and then sample the waste for approval prior to further processing or disposal.

The following waste analyses are performed by Brenntag for initial waste stream qualifications and requalifications:

Initial Description, including phases/layers, is for identification of physical characteristics and for waste material classification. The pH and the color of each phase/layer are recorded.

Laboratory Distillation and Percent Recovery is intended to identify any unusual problem(s) that may occur while distilling a particular waste stream. By exposing a laboratory sample to the heat of the distillation operations, characteristics that inhibit recovery of a particular waste solvent can be observed. The laboratory distillation and percent recovery determine whether a particular waste material has recovery potential and any resale value.

Water Content has been selected because it is critical to the waste's potential reclamation value. Varying amounts of water are found in virtually all waste solvents. Depending on a particular waste's solvent composition, the presence of excessive water may make the reclaimed solvent unusable. Percent water is also crucial for disposal of wastes. The disposal facilities used by Brenntag have varying limits on the waste materials they can accept. Secondary fuel disposal sites typically impose a surcharge for disposal if the percent water exceeds a maximum value.

Specific Gravity is required for tank storage and transportation. It is used to estimate the weight of materials being shipped.

pH is monitored for several reasons. The first is to insure that the waste material is properly categorized and is not a corrosive hazardous waste. The pH of a substance is also critical for storage of waste materials in metal containers and tanks. An excessively acid pH may cause a reaction with the metal containers or tanks. An excessively basic pH may cause a reaction with other wastes.

Flash Point may be checked to determine if the waste is flammable.

Heat of Combustion is crucial for disposal of wastes. The disposal facilities Brenntag uses have varying limits on the waste materials they can accept. Secondary fuel disposal sites typically impose a surcharge for disposal if the BTU per pound drops below their set value.

Solvent Composition is one of the most crucial parameters for the solvent reclamation operation. It provides information on the chemical composition including identification of the various solvent components that are present. This information is required to safely handle the solvent, determine any potential reuse for the reclaimed solvent, and to prepare a Material Safety Data Sheet (MSDS). This analysis provides the waste material classification.

Waste streams are requalified, as necessary, to insure that the profile and analyses are accurate and up to date. At a minimum, Brenntag will request a requalification:

1) If they are notified, or have reason to believe that the process or operation generating the waste has changed; and

2) When the results of the inspections or analyses performed on the inbound waste indicate that the hazardous waste shipment received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

Requalification includes having the generator complete a TC Rule Certification Form and submittal of a sample for analysis by Brenntag.

2.2 Inbound Waste Testing

Once a waste is approved for receipt at the facility, the incoming waste shipment procedures will be followed. When shipments of inbound wastes are received at the gate, all the accompanying paperwork (manifest, LDR (once per year), waste profile identification number) is inspected for conformance with initial waste qualification documents. If there are no discrepancies in the paperwork, a sample of the waste is collected for analysis. Shipments of inbound wastes are analyzed for the following parameters:

PCB Screening is conducted for each tanker or each drum lot to make sure waste materials are not contaminated with PCB's above the regulatory limit of 50 ppm.

pH is checked to insure that the waste is not corrosive. An excessively acid pH may cause a reaction with other wastes or with the metal storage containers and tanks. An excessively basic pH may cause a reaction with other wastes. Brenntag is not licensed to store corrosive wastes.

Radioactivity is checked to confirm that the waste is not radioactive. Brenntag is not licensed to store radioactive wastes.

Reactivity is tested to determine compatibility with other wastes stored at the facility. It is also a critical parameter in safe handling and storage of the waste. Brenntag is not licensed to store reactive waste.

2.3 Outbound Waste Testing

Brenntag blends various wastes and ships them to off-site facilities for use as a secondary fuel. Wastes to be shipped off site for use as a secondary fuel are tested for the following parameters:

- Heat of Combustion (Btu/lb)
- Chlorine Content (%)
- Ash Content (%)
- Density (lb/gal)
- Water Content (%)
- Solids Content (%)

A Bomb Calorimetry Form is completed for these wastes. A copy of this form is provided as Exhibit D.

Wastes, which are not suitable for use as a secondary fuel, are shipped off site for disposal. These wastes are also analyzed for the parameters listed on the Bomb Calorimetry Form. Any volatile organic compounds greater than 5000 ppm are identified, quantified and reported. All bulk outbound samples are consolidated and tested monthly.

Section 3
TEST METHODS
[NR 664.0013(2)(b)]

Brenntag has Standard Operating Procedures (SOPs) for each of the analytical tests performed by their in-house laboratory. The following table lists the SOPs for each parameter.

Parameter	Standard Operating Procedure Instruction Number
Specific Gravity (s.u.)	10,040.15
Reactivity	10,060.02
PCB Screening (ppm)	10,060.02
Radioactivity	10,060.02
Heat of Combustion (Btu/lb)	10,040.17
Chlorine Content (%)	10,040.19
Ash Content (%)	10,040.19
Viscosity	10,040.05
pH (s.u)	10,040.08
Flash Point (F)	10,040.03
Distillation and Recovery (%)	10,060.08
Solvent Composition (%)	10,040.31

An example of a Standard Operating Procedure is provided as Exhibit E.

Section 4
SAMPLING PROCEDURES
[NR 664.0013(2)(c)]

4.1 Sampling Strategies and Equipment

Representative samples from separate drums or totes are obtained according to the following sampling procedures:

1. Use clean Coliwasa core sampler or equivalent type sampler.

2. Adjust sampler's locking mechanism to ensure that the unit provides a tight closure. Open sampler by placing stopper rod handle down until the handle sits against the sampler's locking block.

3. Slowly lower the sampler into the waste at a rate that permits the level of liquid inside and outside the sampler to remain the same. If the level of waste in the sampler tube is lower inside than outside, the sampling rate is too fast and will produce a non-representative sample.

4. When the sampler hits the bottom of the waste container, push sampler tube down to close and lock the stopper until it is upright and one end rests on the locking block.

5. Withdraw Coliwasa or equivalent type sampler from waste container.

6. Transfer waste to a glass sample jar and label.

4.2 Sample Preservation and Storage

Samples are stored up to three months.

4.3 Sampling QA/QC Procedures

All sampling for the purpose of characterizing waste generated or stored by Brenntag will use appropriate QA/QC procedures, including the use of a chain-of-custody from sample collection through delivery to the analytical laboratory, and use of compatible storage containers. Samples collected for prequalification of wastes are accompanied by a Customer Profile Sheet and a TC Rule Certification/Recertification Form.

Personnel collecting samples on-site receive periodic training on the proper use of sampling equipment.

Section 5
FREQUENCY OF ANALYSIS
[NR 664.0013(1)(c) & NR 664.0013(2)(d)]

Every waste stream to be processed at the Brenntag facility is analyzed prior to the initial processing of the waste stream and it is assigned a waste analysis number. Inbound tankers, which have a waste analysis number older than one year from the date of receipt, are subject to requalification. All other wastes are subject to requalification if the waste analysis number is older than two years. The parameters analyzed for the initial qualification and requalification are discussed in Section 2.1.

Shipments of inbound waste, which have a current waste analysis number, are also sampled. However, the analysis performed is limited to pH, reactivity, radioactivity, and PCBs. One sample is collected from each tank truck for separate analysis. A sample is collected from each drum in a 25-drum lot and composited for analysis purposes.

Section 6
WASTE ANALYSES TO BE SUPPLIED BY GENERATORS
[NR 664.0013(2)(e)]

Generators must provide Brenntag with laboratory analyses or other documentation to demonstrate that a waste does not exhibit a characteristic of toxicity for which Brenntag is not licensed to store. A Customer Profile Sheet and a TC Rule Certification/Recertification Form must be completed and signed by the generator for each waste stream. Copies of these forms are provided as Exhibits B and C.

Section 7
METHODS USED TO MEET ADDITIONAL REQUIREMENTS FOR IGNITABLE/REACTIVE WASTES
[NR 664.0013(2)(f)]

Since many of the solvents Brenntag processes are flammable the facility was designed and constructed to handle flammable liquids. The hazards due to ignitability for each waste are determined during the waste qualification and requalification process. Reactive wastes are not accepted at the facility. A reactivity test is performed on each waste shipment as described in Sections 2.2.

Section 8
WASTE INSPECTION AND IDENTIFICATION PROCEDURES
[NR 664.0013(3)]

Prior to processing a shipment of a new waste stream from a potential or existing customer, a representative sample of the waste stream is given a sample identification number and analyzed as discussed in Section 2. After the waste stream has been approved, the customer is contacted and told that the waste material is suitable for handling at the facility. The analytical results are entered into Brenntag's computer system and the sample identification number becomes the waste analysis number (approval number). Since all waste pick-up requests are entered into the main computer system, waste materials cannot be picked up for processing without having an approval number in the computer. An analysis of an approved waste stream can be viewed from computer terminals by operations personnel at any time.

When a customer calls Brenntag for a waste pick-up, the customer file for that particular waste stream is reviewed to make sure there is an approved analysis on file. If an active approval number does not exist for that material, the waste stream can not be picked up without an upper level manager's approval. If the manager gives an approval, the waste stream must then be requalified upon entry. If the waste stream is approved and in the computer system, the waste pick-up is scheduled. The scheduled date is based upon the customer's requirements and the type of stocks needed for solvent reclamation, or the amount of tank room available for fuels blending.

When materials arrive on site, operations personnel match the amount of material on the manifest and/or Bill of Lading to the actual amount received. Samples are then pulled for laboratory approval.

Section 9
REQUIREMENTS FOR CERTIFIED OR REGISTERED LABORATORY
[NR 664.0013(1)(a)(1)]

Brenntag's in-house laboratory is currently registered with the DNR and certified to perform the following tests:

- Corrosivity (pH)
- Ignitability (Flashpoint)
- Reactivity
- PCBs
- Fingerprinting (Requalification Program)

An outside laboratory is used for the following analytical tests:

- All items listed on TC Rule Certification Form
- PCB Quantification

Section 10
LABORATORY OPERATING PROCEDURES

The laboratory is kept in a clean and orderly condition at all times. The room temperature is maintained as constant as possible. Care is taken to maintain air quality.

10.1 Training

Initial training for new staff is a priority. Regular continuing training is also provided to ensure competence and maintenance of analytical skills. Annual certification is required of personnel in sampling, logging, labeling, safety, and other areas. Initial training tests are reviewed annually by employees to validate training.

10.2 Equipment Maintenance and Calibration

All equipment is maintained in proper working order. When problems arise, repairs are performed by either the lab technician or a qualified service representative. Detailed records of all problems and repairs, including who performed service and costs, are kept on file. For purposes of documenting data, the dates of breakdown and subsequent repair are considered particularly important. Records of all routine maintenance and repair are kept in the equipment maintenance log and in equipment files. Instruments are calibrated according to Standard Operating Procedure 10,080.14.

10.3 Lab Reagents

Only analytical grade reagents are used. Labels on all chemical reagents are marked with the date received and opened. Chemicals are stored out of direct sunlight or in the refrigerator if experience or other information suggests that cool storage of a particular reagent is warranted. Care is exercised to prevent cross-contamination of all reagents. Shelf life dates are closely monitored. For reagents mixed in the lab, shelf life recommendations provided with the analytical method are followed.

10.4 Glassware

After each use, glassware is washed, allowed to dry and stored. It is recognized that the appropriate glassware cleaning procedures depend on the material and analysis performed.

10.5 Reference Samples

Reference samples, obtained from suppliers to the solvent distribution facility, are analyzed on a daily basis with the gas chromatograph. Standard samples are analyzed as needed if acceptance limits are exceeded.

10.6 Sample Holding Times

All samples are maintained for up to six months, at which time the samples are combined, in a 55-gallon drum, and the drum is labeled and taken to the drum storage facility for subsequent disposal.

EXHIBIT A

ACCEPTED WASTE CODES

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION	SIC CODE
D001	Flammable	NA
D004	Arsenic	7440–38–2
D005	Barium	7440–39–3
D006	Cadmium	7440–43–9
D007	Chromium	7440–47–3
D008	Lead	7439–92–1
D009	Mercury	7439–97–6
D010	Selenium	7782–49–2
D011	Silver	7440–22–4
D012	Endrin	0072–20–8
D013	Lindane	0058–89–9
D014	Methoxychlor	0072–43–5
D015	Toxaphene	8001–35–2
D016	2,4–D	0094–75–7
D017	2,4,5–TP (Silvex)	0093–72–1
D018	Benzene	0071–43–2
D019	Carbon tetrachloride	0056–23–5
D020	Chlordane	0057-74-9
D021	Chlorobenzene	0108–90–7
D022	Chloroform	0067–66–3
D023	o–Cresol	0095–48–7
D024	m–Cresol	0108–39–4
D025	p–Cresol	0106–44–5
D026	Cresol	
D027	1,4–Dichlorobenzene	0106–46–7
D028	1,2–Dichloroethane	0107–06–2
D029	1,1–Dichloroethylene	0075–35–4
D030	2,4–Dinitrotoluene	0121–14–2
D031	Heptachlor (and its epoxide)	0076–44–8
D032	Hexachlorobenzene	0118–74–1
D033	Hexachlorobutadiene	0087–68–3
D034	Hexachloroethane	0067–72–1
D035	Methyl ethyl ketone	0078–93–3
D036	Nitrobenzene	0098–95–3

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION	SIC CODE
D037	Pentachlorophenol	0087–86–5
D038	Pyridine	0110–86–1
D039	Tetrachloroethylene	0127–18–4
D040	Trichloroethylene	0079–01–6
D041	2,4,5–Trichlorophenol	0095–95–4
D042	2,4,6–Trichlorophenol	0088–06–2
D043	Vinyl chloride	0075–01–4

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride,1,1,1–trich-loroethane, carbon tetrachloride, and chlorinated fluorocarbons; all mixtures and blends of spent solvents used in degreasing contain-ing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1–trichloroethane,chloro-benzene, 1,1,2–trichloro–1,2,2–trifluoroethane, ortho–dichlorobenzene, trichlorofluoromethane and 1,1,2–trichloroethane; all mix-tures and blends of spent solvents containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those listed in F001, F004or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non–halogenated solvents: xylene, acetone, ethylacetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n–bu-tylalcohol, cyclohexanone and methanol; all mixtures and blends of spent solvents containing, before use, only the above spent non–halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non–halogenated solvents and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002,F004 and F005;and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non–halogenated solvents: cresols, cresylic acid, and nitrobenzene; all mixtures and blends of spent solvents con-taining, before use, a total of 10% or more, by volume, of one or more of the above non–halogenated solvents or those solvents listed in F001, F002 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non–halogenated solvents: toluene, methylethylketone, carbon disulfide, isobutanol, pyridine, benzene,2–ethox-yethanol and 2–nitropropane; all mixtures and blends of spent solvents containing, before use, a total of 10% or more, by volume, of one or more of the above non–halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations, except from the following processes: (1) sulfuric acid an odizing of alu-minum; (2) tin plating on carbon steel; (3) zinc plating, segregated basis, on carbon steel; (4) aluminum or zinc–aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
	Note: Electroplating operations are considered to include common and precious metals electroplating, anodizing, chemical etching and milling, and cleaning and stripping when associated with these processes.
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars and reactor clean–out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radicalcatalyzed processes. These chlorinated aliphatic hydrocarbons are those hav-ing carbon chain lengths ranging from one to 5, with varying amounts and positions of chlorine substitution. This listing does not in-clude wastewaters,wastewater treatment sludges, spent catalysts and wastes listed in sub. (2) (a) or (b).
F025	Condensed light ends, spent filters and filter aids and spent desiccant wastes from the production of certain chlorinated aliphatic hydro-carbons, by free radical catalyzed processes. These chlorinated aliphatichydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophe-nol.
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chro-mium. This listing does not include K001 bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.
F037	Petroleum refinery primary oil or water or solids separation sludge–Any sludge generated from the gravitational separation of oil or water or solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil or water or solids separators; tanks and impoundments; ditches and other conveyances; sumps and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non–contact once–through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated inaggressive biological treatment units as defined in s. NR 605.15 (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.
F038	Petroleum refinery secondary (emulsified) oil or water or solids separation sludge–Any sludge or float generated from the physical or chemical separation of oil or water or solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non–contact once–through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats gener-ated in aggressive biological treatment units as defined in s. NR 605.15 (including sludges and floats generated in one or more addition-al units after wastewaters have been treated inaggressive biological treatment units) and F037, K048 and K051 wastes are not included in this listing.
F039	Leachate (liquids that have percolated through and disposed wastes) resulting from the disposal of more than one restricted waste clas-sified by more than one waste code under s. NR 605.09, or from a mixture of wastes classified as hazardous under s. NR 605.09. Lea-chate resulting from the disposal of one or more of the following hazardous wastes and no other hazardous wastes retains its hazardous wastes code(s): F020, F021, F022, F026, F027 or F028.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophe-nol. Inorganic Pigments
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated.
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K009	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.
K017	Heavy ends or still bottoms from the purification column in the production of epichlorohydrin.
K018	Heavy ends from the fractionation column in ethyl chloride production.
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K022	Distillation bottom tars from the production of phenol or acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
K026	Stripping still tails from the production of methyl ethyl pyridines.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1–trichloroethane.
K029	Waste from the product stream stripper in the production of 1,1,1–trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.
K031	By–product salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane.
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
K035	Wastewater treatment sludges generated in the production of creosote.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production.
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.
K040	Wastewater treatment sludge from the production of phorate.
K041	Wastewater treatment sludge from the production of toxaphene.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5–T.
K043	2,6–Dichlorophenol waste from the production of 2,4–D.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	American Petroleum Institute (API) separator sludge from the petroleum refining industry.
K052	Tank bottoms, leaded, from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust or sludge from the electric furnace primary production of steel.
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K069	Emission control dust or sludge from secondary lead smelting. This listing does not include sludge generated from secondary acid scrubber systems.
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo–arsenic compounds.
K085	Distillation or fractionating column bottoms from the production of chlorobenzenes.
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.
K087	Decanter tank tar sludge from coking operations.
K088	Spent potliners from primary aluminum reduction.
K090	Emission control dust or sludge from ferrochromiumsilicon production.
K093	Distillation light ends from the production of phthalic anhydride from ortho–xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho–xylene.
K095	Distillation bottoms from the production of 1,1,1–trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1–trichloroethane.
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.
K098	Untreated process wastewater from the production of toxaphene.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K099	Untreated wastewater from the production of 2,4–D.
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo–arsenic compounds.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.
K109	Spent filter cartridges from product purification from the production of 1,1–dimethylhydrazine (UDMH) from carboxylic acid hydrazides.
K110	Condensed column overheads from intermediate separation from the production of 1,1–dimethylhydrazine (UDMH) from car-boxylic acidhydrazides.
K112	Reaction by–product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenedia-mine.
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K123	Process wastewater, including supernates, filtrates and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt.
K125	Filtration, evaporation and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithio-carbamic acid and its salts.
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by–products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by–products produced from coal.
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters and wash oil recovery units from the recovery of coke by–products produced from coal.
WASTE	

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by–products produced from coal.
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by–products produced from coal.
K147	Tar storage tank residues from coal tar refining.
K148	Residues from coal tar distillation, including but not limited to, still bottoms.
K149	Distillation bottoms from the production of alpha– (or methyl–)chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes asso-ciated with the production of alpha– (or methyl–) chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and com-pounds with mixtures of these functional groups.
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha– (or methyl–) chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and compounds with mixtures of these functional groups.
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carba-mates and carbamoyl oximes.
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes.
K159	Organics from the treatment of thiocarbamate wastes.
K160	Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.

WASTE CODE	SIC CODE	DESCRIPTION
U001	00075–07–0	Acetaldehyde (I) (Ethanal (I))
U002	00067–64–1	Acetone (I) (2–Propanone (I))
U003	00075–05–8	Acetonitrile (I,T)
U004	00098–86–2	Acetophenone (Ethanone, 1–phenyl–)
U005	00053–96–3	Acetamide, N–9H–fluoren–2–yl– (2–Acetylaminofluorene)
U009	00107–13–1	Acrylonitrile (2–Propenenitrile)
U010	00050–07–7	Azirino[2',3':3,4]pyrrolo[1,2–a]indole–4,7–dione6–amino–8–[[(aminocarbonyl)oxy]methyl]–1,1a,2,8,8a,8b–hexahy-dro– 8a–methoxy–5–methyl–, [1aS–(1aalpha, 8beta,8aalpha,8balpha)]– (Mitomycin C)
U011	00061–82–5	Amitrole (1H–1,2,4–Triazol–3–amine)
U012	00062–53–3	Aniline (I,T) (Benzenamine (I,T))
U014	00492–80–8	Auramine (Benzenamine, 4,4'–carbonimidoylbis[N,N–dimethyl–)
U015	00115–02–6	Azaserine (L–Serine, diazoacetate (ester))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U016	00225–51–4	Benz[c]acridine
U017	00098–87–3	Benzal chloride (Benzene, (dichloromethyl)–)
U018	00056–55–3	Benz[a]anthracene
U019	00071–43–2	Benzene (I,T)
U021	00092–87–5	Benzidine ([1,1'–Biphenyl]–4,4'–diamine)
U022	00050–32–8	Benzo[a]pyrene
U024	00111–91–1	Dichloromethoxy ethane (Ethane, 1,1'–[methylenebis(oxy)]bis[2–chloro–)
U025	00111–44–4	Dichloroethyl ether (Ethane, 1,1'–oxybis[2–chloro–)
U026	00494–03–1	Chlornaphazin (Naphthalenamine, N,N'–bis(2–chloroethyl)–)
U027	00108–60–1	Dichloroisopropyl ether (Propane, 2,2'–oxybis[2–chloro–)
U029	00074–83–9	Methane, bromo– (Methyl bromide)
U030	00101–55–3	Benzene, 1–bromo–4–phenoxy– (4–Bromophenyl phenyl ether)
U031	00071–36–3	1–Butanol (I) (n–Butyl alcohol (I))
U034	00075–87–6	Acetaldehyde, trichloro– (Chloral)
U036	00057–74–9	Chlordane, alpha & gamma isomers (4,7–Methano–1H–indene, 1,2,4,5,6,7,8,8–octachloro–2,3,3a,4,7,7a–hexahydro–)
U037	00108–90–7	Benzene, chloro– (Chlorobenzene)
U039	00059–50–7	p–Chloro–m–cresol (Phenol, 4–chloro–3–methyl–)
U041	00106–89–8	Epichlorohydrin (Oxirane, (chloromethyl)–)
U042	00110–75–8	2–Chloroethyl vinyl ether (Ethene, (2–chloroethoxy)–)
U043	00075–01–4	Ethene, chloro– (Vinyl chloride)
U044	00067–66–3	Chloroform (Methane, trichloro–)
U045	00074–87–3	Methane, chloro– (I, T) (Methyl chloride (I,T))
U046	00107–30–2	Chloromethyl methyl ether (Methane, chloromethoxy–)
U047	00091–58–7	beta–Chloronaphthalene (Naphthalene, 2–chloro–)
U048	00095–57–8	o–Chlorophenol (Phenol, 2–chloro–)
U049	03165–93–3	Benzenamine, 4–chloro–2–methyl–, hydrochloride (4–Chloro–o–toluidine, hydrochloride)
U051		Creosote
U053	04170–30–3	2–Butenal (Crotonaldehyde)
U055	00098–82–8	Benzene, (1–methylethyl)– (I) (Cumene (I))
U056	00110–82–7	Benzene, hexahydro– (I) (Cyclohexane (I))
U057	00108–94–1	Cyclohexanone (I)
U058	00050–18–0	Cyclophosphamide (2H–1,3,2–Oxazaphosphorin–2–amine, N,N–bis(2–chloroethyl)tetrahydro–, 2–oxide)
WASTE	SIC	

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	CODE	DESCRIPTION
U059	20830–81–3	Daunomycin (5,12–Naphthacenedione,8–acetyl–10–[(3–amino–2,3,6–trideoxy)–alpha–L–lyxo–hexopyranosyl)oxy]–7,8,9,10–tetrahy -dro– 6,8,11–trihydroxy–1–methoxy–, (8S–cis)–)
U063	00053–70–3	Dibenz[a,h]anthracene
U064	00189–55–9	Benzo[rst]pentaphene (Dibenzo[a,i]pyrene)
U066	00096–12–8	1,2–Dibromo–3–chloropropane (Propane, 1,2–dibromo–3–chloro–)
U067	00106–93–4	Ethane, 1,2–dibromo– (Ethylene dibromide)
U068	00074–95–3	Methane, dibromo– (Methylene bromide)
U070	00095–50–1	Benzene, 1,2–dichloro– (o–Dichlorobenzene)
U071	00541–73–1	Benzene, 1,3–dichloro– (m–Dichlorobenzene)
U072	00106–46–7	Benzene, 1,4–dichloro– (p–Dichlorobenzene)
U073	00091–94–1	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dichloro– (3,3'–Dichlorobenzidine)
U074	00764–41–0	2–Butene, 1,4–dichloro– (I,T) (1,4–Dichloro–2–butene (I,T))
U075	00075–71–8	Dichlorodifluoromethane (Methane, dichlorodifluoro–)
U076	00075–34–3	Ethane, 1,1–dichloro– (Ethylidene dichloride)
U077	00107–06–2	Ethane, 1,2–dichloro– (Ethylene dichloride)
U078	00075–35–4	1,1–Dichloroethylene (Ethene, 1,1–dichloro–)
U079	00156–60–5	1,2–Dichloroethylene (Ethene, 1,2–dichloro–, (E)–)
U080	00075–09–2	Methane, dichloro– (Methylene chloride)
U081	00120–83–2	2,4–Dichlorophenol (Phenol, 2,4–dichloro–)
U082	00087–65–0	2,6–Dichlorophenol (Phenol, 2,6–dichloro–)
U083	00078–87–5	Propane, 1,2–dichloro– (Propylene dichloride)
U084	00542–75–6	1,3–Dichloropropene (1–Propene, 1,3–dichloro–)
U085	01464–53–5	2,2'–Bioxirane (1,2:3,4–Diepoxybutane (I,T))
U089	00056–53–1	Diethylstilbesterol (Phenol, 4,4'–(1,2–diethyl–1,2–ethenediyl)bis–, (E)–)
U090	00094–58–6	1,3–Benzodioxole, 5–propyl– (Dihydrosafrole)
U091	00119–90–4	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dimethoxy– (3,3'–Dimethoxybenzidine)
U092	00124–40–3	Dimethylamine (I) (Methanamine, N–methyl– (I))
U093	00060–11–7	Benzenamine, N,N–dimethyl–4–(phenylazo)– (p–Dimethylaminoazobenzene)
U094	00057–97–6	Benz[a]anthracene, 7,12–dimethyl– (7,12–Dimethylbenz[a]anthracene)
U095	00119–93–7	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dimethyl– (3,3'–Dimethylbenzidine)
U101	00105–67–9	2,4–Dimethylphenol (Phenol, 2,4–dimethyl–)
U103	00077–78–1	Dimethyl sulfate (Sulfuric acid, dimethyl ester)
U105	00121–14–2	Benzene, 1–methyl–2,4–dinitro– (2,4–Dinitrotoluene)
U106	00606–20–2	Benzene, 2–methyl–1,3–dinitro– (2,6–Dinitrotoluene)

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U108	00123–91–1	1,4–Diethyleneoxide (1,4–Dioxane)
U110	00142–84–7	Dipropylamine (I) (1–Propanamine, N–propyl– (I))
U111	00621–64–7	Di–n–propylnitrosamine (1–Propanamine, N–nitroso–N–propyl–)
U114	00111–54–6	Carbamodithioic acid, 1,2–ethanediylbis–, salts & esters (Ethylenebisdithiocarbamic acid, salts & esters)
U115	00075–21–8	Ethylene oxide (I,T) (Oxirane (I,T))
U116	00096–45–7	Ethylenethiourea (2–Imidazolidinethione)
U117	00060–29–7	Ethane, 1,1'–oxybis–(I) (Ethyl ether (I))
U120	00206–44–0	Fluoranthene
U121	00075–69–4	Methane, trichlorofluoro– (Trichloromonofluoromethane)
U122	00050–00–0	Formaldehyde
U124	00110–00–9	Furan (I) (Furfuran (I))
U125	00098–01–1	2–Furancarboxaldehyde (I) (Furfural (I))
U126	00765–34–4	Glycidylaldehyde (Oxiranecarboxyaldehyde)
U127	00118–74–1	Benzene, hexachloro– (Hexachlorobenzene)
U128	00087–68–3	1,3–Butadiene, 1,1,2,3,4,4–hexachloro– (Hexachlorobutadiene)
U129	00058–89–9	Cyclohexane, 1,2,3,4,5,6–hexachloro–(1alpha,2alpha,3beta,4alpha,5alpha,6beta)– (Lindane)
U130	00077–47–4	1,3–Cyclopentadiene, 1,2,3,4,5,5–hexachloro– (Hexachlorocyclopentadiene)
U131	00067–72–1	Ethane, hexachloro– (Hexachloroethane)
U132	00070–30–4	Hexachlorophene (Phenol, 2,2'–methylenebis[3,4,6–trichloro–)
U137	00193–39–5	Indeno[1,2,3–cd]pyrene
U138	00074–88–4	Methane, iodo– (Methyl iodide)
U140	00078–83–1	Isobutyl alcohol (I,T) (1–Propanol, 2–methyl– (I,T))
U141	00120–58–1	1,3–Benzodioxole, 5–(1–propenyl)– (Isosafrole)
U143	00303–34–4	2–Butenoic acid, 2–methyl–, 7–[[2,3–dihydroxy2–(1–methoxyethyl)–3–methyl–1–oxobutoxy]methyl]–2,3,5,7a–tetrahy-dro– 1H–pyrrolizin–1–yl ester,[1S–[1alpha(Z),7(2S*,3R*),7aalpha]]– (Lasiocarpine)
U146	01335–32–6	Lead, bis(acetato–O)tetrahydroxytri– (Lead subacetate)
U147	00108–31–6	2,5–Furandione (Maleic anhydride)
U148	00123–33–1	Maleic hydrazide (3,6–Pyridazinedione, 1,2–dihydro–)
U149	00109–77–3	Malononitrile (Propanedinitrile)
U150	00148–82–3	Melphalan (L–Phenylalanine, 4–[bis(2–chloroethyl)amino]–)
U151	07439–97–6	Mercury
U152	00126–98–7	Methacrylonitrile (I, T) (2–Propenenitrile, 2–methyl– (I,T))
U153	00074–93–1	Methanethiol (I, T) (Thiomethanol (I,T))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U154	00067–56–1	Methanol (I) (Methyl alcohol (I))
U155	00091–80–5	1,2–Ethanediamine, N,N–dimethyl–N'–2–pyridinyl–N'–(2–thienylmethyl)–(Methapyrilene)
U157	00056–49–5	Benz[j]aceanthrylene, 1,2–dihydro–3–methyl– (3–Methylcholanthrene)
U158	00101–14–4	Benzenamine, 4,4'–methylenebis[2–chloro– (4,4'–Methylenebis(2–chloroaniline))
U159	00078–93–3	2–Butanone (I,T) (Methyl ethyl ketone (MEK) (I,T))
U161	00108–10–1	Methyl isobutyl ketone (I) (4–Methyl–2–pentanone (I)) (Pentanol, 4–methyl–)
U163	00070–25–7	Guanidine, N–methyl–N'–nitro–N–nitroso– (MNNG)
U164	00056–04–2	Methylthiouracil (4 (1H)–Pyrimidinone, 2,3–dihydro–6–methyl–2–thioxo–)
U165	00091–20–3	Naphthalene
U166	00130–15–4	1,4–Naphthalenedione (1,4–Naphthoquinone)
U167	00134–32–7	1–Naphthalenamine (alpha–Naphthylamine)
U168	00091–59–8	2–Naphthalenamine (beta–Naphthylamine)
U169	00098–95–3	Benzene, nitro– (Nitrobenzene (I,T))
U170	00100–02–7	p–Nitrophenol (Phenol, 4–nitro–)
U171	00079–46–9	2–Nitropropane (I,T) (Propane, 2–nitro– (I,T))
U172	00924–16–3	1–Butanamine, N–butyl–N–nitroso– (N–Nitrosodi–n–butylamine)
U173	01116–54–7	Ethanol, 2,2'–(nitrosoimino)bis– (N–Nitrosodiethanolamine)
U174	00055–18–5	Ethanamine, N–ethyl–N–nitroso– (N–Nitrosodiethylamine)
U176	00759–73–9	N–Nitroso–N–ethylurea (Urea, N–ethyl–N–nitroso–)
U179	00100–75–4	N–Nitrosopiperidine (Piperidine, 1–nitroso–)
U180	00930–55–2	N–Nitrosopyrrolidine (Pyrrolidine, 1–nitroso–)
U181	00099–55–8	Benzenamine, 2–methyl–5–nitro– (5–Nitro–o–toluidine)
U182	00123–63–7	Paraldehyde (1,3,5–Trioxane, 2,4,6–trimethyl–)
U183	00608–93–5	Benzene, pentachloro– (Pentachlorobenzene)
U184	00076–01–7	Ethane, pentachloro– (Pentachloroethane)
U185	00082–68–8	Benzene, pentachloronitro– (Pentachloronitrobenzene (PCNB))
U186	00504–60–9	1–Methylbutadiene (I) (1,3–Pentadiene (I))
U187	00062–44–2	Acetamide, N–(4–ethoxyphenyl)– (Phenacetin)
U188	00108–95–2	Phenol
U191	00109–06–8	2–Picoline (Pyridine, 2–methyl–)
U192	23950–58–5	Benzamide, 3,5–dichloro–N–(1,1–dimethyl–2–propynyl)– (Pronamide)
U193	01120–71–4	1,2–Oxathiolane, 2,2–dioxide (1,3–Propane sultone)
U194	00107–10–8	1–Propanamine (I,T) (n–Propylamine (I,T))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U196	00110–86–1	Pyridine
U197	00106–51–4	p–Benzoquinone (2,5–Cyclohexadiene–1,4–dione)
U200	00050–55–5	Reserpine (Yohimban–16–carboxylic acid,11,17–dimethoxy–18–[(3,4,5–trimethoxybenzoyl)oxy]–, methyl ester,(3beta,16beta,17al-pha, 18beta,20alpha)–)
U201	00108–46–3	1,3–Benzenediol (Resorcinol)
U202	00081–07–2	1,2–Benzisothiazol–3 (2H)–one, 1,1–dioxide, & salts (Saccharin, & salts)
U203	00094–59–7	1,3–Benzodioxole, 5–(2–propenyl)– (Safrole)
U204	07783–00–8	Selenious acid (Selenium dioxide)
U206	18883–66–4	Glucopyranose, 2–deoxy–2–(3–methyl–3–nitrosoureido)–, D– (D–Glucose, 2–deoxy–2–[[(methylnitrosoamino)– carbonyl]amino]–) (Streptozotocin)
U207	00095–94–3	Benzene, 1,2,4,5–tetrachloro– (1,2,4,5–Tetrachlorobenzene)
U208	00630–20–6	Ethane, 1,1,1,2–tetrachloro– (1,1,1,2–Tetrachloroethane)
U209	00079–34–5	Ethane, 1,1,2,2–tetrachloro– (1,1,2,2–Tetrachloroethane)
U210	00127–18–4	Ethene, tetrachloro– (Tetrachloroethylene)
U211	00056–23–5	Carbon tetrachloride (Methane, tetrachloro–)
U213	00109–99–9	Furan, tetrahydro–(I) (Tetrahydrofuran (I))
U216	07791–12–0	Thallium(I) chloride (Thallium chloride TlCl)
U217	10102–45–1	Nitric acid, thallium(1+) salt (Thallium(I) nitrate)
U218	00062–55–5	Ethanethioamide (Thioacetamide)
U220	00108–88–3	Benzene, methyl– (Toluene)
U221	25376–45–8	Benzenediamine, ar–methyl– (Toluenediamine)
U222	00636–21–5	Benzenamine, 2–methyl–, hydrochloride (o–Toluidine hydrochloride)
U225	00075–25–2	Bromoform (Methane, tribromo–)
U226	00071–55–6	Ethane, 1,1,1–trichloro– (Methyl chloroform)
U227	00079–00–5	Ethane, 1,1,2–trichloro– (1,1,2–Trichloroethane)
U228	00079–01–6	Ethene, trichloro– (Trichloroethylene)
U235	00126–72–7	1–Propanol, 2,3–dibromo–, phosphate (3:1) (Tris(2,3–dibromopropyl) phosphate)
U237	00066–75–1	2,4–(1H,3H)–Pyrimidinedione, 5–[bis(2– chloroethyl)amino]– (Uracil mustard)
U239	01330–20–7	Benzene, dimethyl– (I,T) (Xylene (I))
U240	00094–75–7	Acetic acid, (2,4–dichlorophenoxy)–, salts & esters (2,4–D, salts & esters)
U243	01888–71–7	Hexachloropropene (1–Propene, 1,1,2,3,3,3–hexachloro–)
U244	00137–26–8	Thioperoxydicarbonic diamide [(H2 N)C(S)]2 S2 , tetramethyl– (Thiram)
U247	00072–43–5	Benzene,1,1'–(2,2,2–trichloroethylidene)bis[4– methoxy– (Methoxychlor)
U248	00081–81–2	2H–1–Benzopyran–2–one, 4–hydroxy–3–(3–oxo–1–phenyl–butyl)–, & salts, when present at concentrations of 0.3% or less (Warfarin, & salts, when present at concentrations of 0.3% or less)

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U249	01314–84–7	Zinc phosphide Zn3 P2 , when present at concentrations of 10% or less
U271	17804-35-2	Benomyl (Carbamic acid, [1–[(butylamino)carbonyl]–1H–benzimidazol–2–yl]–, methyl ester)
U277	95-06-7	Carbamodithioic acid, diethyl–, 2–chloro–2–propenyl ester (Sulfallate)
U278	22781-23-3	Bendiocarb (1,3–Benzodioxol–4–ol, 2,2–dimethyl–, methyl carbamate)
U279	63-25-2	Carbaryl (1–Naphthalenol, methylcarbamate)
U280	101-27-9	Barban (Carbamic acid, (3–chlorophenyl)–, 4–chloro–2–butynyl ester)
U328	00095–53–4	Benzenamine, 2–methyl– (o–Toluidine)
U353	00106–49–0	Benzenamine, 4–methyl– (p–Toluidine)
U359	00110–80–5	Ethanol, 2–ethoxy– (Ethylene glycol monoethyl ether)
U364	22961-82-6	Bendiocarb phenol (1,3–Benzodioxol–4–ol, 2,2–dimethyl–,)
U365	2212-67-1	H–Azepine–1–carbothioic acid, hexahydro–, S–ethyl ester (Molinate)
U366	533-74-4	Dazomet (2H–1,3,5–Thiadiazine– 2–thione, tetrahydro–3,5–dimethyl–)
U367	1563-38-8	7–Benzofuranol, 2,3–dihydro–2,2–dimethyl– (Carbofuran phenol)
U372	10605-21-7	Carbamic acid, 1H–benzimidazol–2–yl, methyl ester (Carbendazim)
U373	122-42-9	Carbamic acid, phenyl–, 1–methylethyl ester (Propham)
U375	55406-53-6	Carbamic acid, butyl–, 3–iodo–2–propynyl ester (3–Iodo–2–propynyl n–butylcarbamate)
U376	144-34-3	Carbamodithioic acid, dimethyl–, tetraanhydrosulfide with orthothioselenious acid (Selenium, tetrakis(dimethyldithiocarbamate))
U377	137-41-7	Carbamodithioic acid, methyl,– monopotassium salt (Potassium n–methyldithiocarbamate)
U378	51026-28-9	Carbamodithioic acid, (hydroxymethyl)methyl–, monopotassium salt (Potassium n–hydroxymethyl– n–methyldi–thiocarbamate)
U379	136-30-1	Carbamodithioic acid, dibutyl, sodium salt (Sodium dibutyldithiocarbamate)
U381	148-18-5	Carbamodithioic acid, diethyl–, sodium salt (Sodium diethyldithiocarbamate)
U382	128-04-1	Carbamodithioic acid, dimethyl–, sodium salt (Sodium dimethyldithiocarbamate)
U383	128-03-0	Carbamodithioic acid, dimethyl, potassium salt (Potassium dimethyldithiocarbamate)
U384	137-42-8	Carbamodithioic acid, methyl–, monosodium salt (Metam Sodium)
U385	1929-77-7	Carbamothioic acid, dipropyl–, S–propyl ester (Vernolate)
U386	1134-23-2	Carbamothioic acid, cyclohexylethyl–, S–ethyl ester (Cycloate)
U387	52888-80-9	Carbamothioic acid, dipropyl–, S–(phenylmethyl) ester (Prosulfocarb)
U389	2303-17-5	Carbamothioic acid, bis(1–methylethyl)–, S–(2,3,3–trichloro–2–propenyl) ester (Triallate)
U390	759-94-4	Carbamothioic acid, dipropyl–, S–ethyl ester (EPTC)
U391	1114-71-2	Carbamothioic acid, butylethyl–, S–propyl ester (Pebulate)
U392	2008-41-5	Butylate (Carbamothioic acid, bis(2–methylpropyl)–, S–ethyl ester)
U393	137-29-1	Copper, bis(dimethylcarbamodithioato–S,S')–, (Copper dimethyldithiocarbamate)

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U394	30558-43-1	A2213 (Ethanimidothioic acid, 2–(dimethylamino)–N–hydroxy–2–oxo–, methyl ester)
U395	5952-26-1	Diethylene glycol, dicarbamate (Ethanol, 2,2'–oxybis–, dicarbamate)
U396	14484-64-1	Ferbam (Iron, tris(dimethylcarbamodithioato–S,S')–,)
U400	120-54-7	Bis(pentamethylene)thiuram tetrasulfide (Piperidine, 1,1'–(tetrathiodicarbonothioyl)–bis–)
U401	97-74-5	Bis(dimethylthiocarbamoyl) sulfide (Tetramethylthiuram monosulfide)
U402	1634-02-2	Tetrabutylthiuram disulfide (Thioperoxydicarbonic diamide, tetrabutyl)
U403	97-77-8	Disulfiram (Thioperoxydicarbonic diamide, tetraethyl)
U404	121-44-8	Ethanamine, N,N–diethyl– (Triethylamine)
U407	14324-55-1	Ethyl Ziram (Zinc, bis(diethylcarbamodithioato–S,S')–)
U409	23564-05-8	Carbamic acid, [1,2–phenylenebis (iminocarbonothioyl)]bis–, dimethyl ester (Thiophanate–methyl)
U410	59669-26-0	Ethanimidothioic acid, N,N'– [thiobis[(methylimino)carbonyloxy]]bis–, dimethyl ester (Thiodicarb)
U411	114-26-1	Phenol, 2–(1–methylethoxy)–, methylcarbamate (Propoxur)

EXHIBIT B

CUSTOMER PROFILE SHEET

PDF 156

BRENNTAG

Profile Number _____

*Items in red or astriks * must be completed*

GENERATORS WASTE PROFILE SHEET
PLEASE PRINT IN INK OR TYPE
Please fax completed profile sheet to Waste Department 262-252-6170

PLEASE CHECK IF GENERATOR IS A NO LANDFILL CUSTOMER Yes ☐ No ☐

A. GENERATOR INFORMATION: **BILLING INFORMATION:**

*Generator Name: _____ Billing Name: _____

*Facility Address: _____ Billing Address: _____

*City: _____ State _____ Zip _____ City: _____ State: _____ Zip: _____

*Customer Name: _____ Billing Contact Name: _____

*Customer Phone: _____ Billing Phone: _____

Customer Fax: _____ Billing Fax: _____

*Generator USEPA/Federal ID _____ BGL Sales Rep _____

Generator State ID # (If applicable):

*Is the Generator a "Conditionally Exempt Small Quantity Generator?" ___ Yes ___ No

Generator's S.I.C. Code(4 Digit):

B. WASTE STREAM INFORMATION:

*Name of the Waste: _____

*Original Process Generating Waste: _____

***Form Code** ***Source Code**

Is a representative sample provided? Yes _____ No ___ Is an MSDS attached? ____ Yes ____ No

Is there any Analytical attached? Yes _____ No ___ Other information? ____ Yes ____ No

C. GENERAL CHARACTERISTICS:

Color _____

Odor

_____ Strong

_____ Mild

_____ None

Physical State @ 70 F

% Liquid _____

% Sludge _____

% Solid _____

% Powder _____

Phases

_____ Single

_____ Multi Layer

_____ How many ?

Btu/Lb

_____ <3,000

_____ 3,000-5,000

_____ 5,000-10,000

_____ >10,000

PH: ___ <2.0 2.0-4.0 x 4.0-10.0 10-12.5 >12.5

Liquid Flashpoint (F):	73-99F	100-139F	140-199F	>200F

Specific Gravity _____ Total Halogens _____

D. CHEMICAL COMPOSITION: Total of Maximum concentration must be > or = to 100%.

Constituents	Min%	Max%

E. OTHER WASTE STREAM INFORMATION:

Is this waste a "USED OIL" per 40CFR PART 279? ___ Yes ___ No

If "Yes", does the total halogen content exceed 1,000 ppm? ___ Yes ___ No

If "Yes", can you identify the "Chlorinated Constituent" present in the oil? ___ Yes ___ No

If "Yes", can you rebut the presumption that this material is a "Hazardous Waste"? ___ Yes ___ No

Does the Waste have any of the following characteristics? (Please check all that apply)

_____ Oxidizer _____ Organic Pe _____ Water reactive _____ Air Reactive ___ Pyrophoric _____ Dioxin

_____ Radioactive _____ Infectious _____ Hexachrome _____ Carcinogen ___ Etiological _____ Aerosols

_____ Explosive Shock Sensitive Undergoes hazardous polymerization Pathogen Cylinder

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BRENNTAG

Profile Number

Does the Waste contain any of the following?

None or less than or actual | None or less than or actual | Profile # 0

_____ PCB's	_____ Sulfides	_____ <50ppm	_____ ppm
_____ Cyanides	_____ Phenolics	_____ <50ppm	_____ ppm

Based on knowledge or analysis, provide an actual value or value for TCLP concentrations or total metal concentrations in ppm. Does waste stream exceed the regulatory treatment standards for each under lying constituents described under CFR 40. part 261?

			Generators Knowledge		
METALS	**Treatment Standard**		**Actual**	**Yes**	**No**
D004 Arsenic	5.0				
D005 Barium	100				
D006 Cadmium	1.0				
D007 Chromium	5.0				
D008 Lead	5.0				
D009 Mercury	0.2				
D010 Selenium	1.0				
D011 Silver	5.0				
PESTICIDES			**Actual**	**Yes**	**No**
D012 Endrin	0.2				
D013 Lindane	0.4				
D014 Methoxychlor	1.0				
D015 Toxaphene	0.5				
Dichlorophenoxyacetic	10.0				
D017 2,4,5-TP (Silvex)	1.0				
D020 Chlorodane	<.03				
D031 Heptachlor (an	<0.008				

		Generators Knowledge		
	Treatment standard	**Actual**	**Yes**	**No**
D018 Benzene	0.5			
D019 Carbon Tetrachloride	0.5			
D021 Chlorobenzene	100			
D022 Chloroform	6.0			
D023 o-Cresol	200			
D024 m-Cresol	200			
D025 p-Cresol	200			
D026 Cresol	200			
D027 1,4 – Dichlorobenzene	7.5			
D028 1,2 – Dichloroethane	0.5			
D029 1,1 – Dichloroethelyne	0.7			
D032 Hexachlorobenzene	0.13			
D033 Hexachlorobutadiene	0.5			
D034 Hexachloroethane	3.0			
D035 Methyl Ethyl Ketone	200			
D036 Nitrobenzene	2.0			
D037 Pentachloropheno	100			
D038 Pyridine	5.0			
D039 Tetrachloroethylen	0.7			
D040 Trichloroethylene	0.5			
D041 2, 4, 5 – Trichlorop	400			
D042 2, 4, 6 – Thrichlorc	2.0			
D043 Vinyl Chloride	0.2			

Does the waste represented by this ofile contain benzene? Yes _____ No _____

If "Yes", please list concentr_____PPM

Is the Waste subject to the benzene waste operations NESHAP? (40CFR Part 61, Subpart FF) ____ Yes ____ No

Answer "Yes" if your waste contains benzene **and** if the SIC code from your facility is one of the following:

2812, 2813,2816,2819,2821,2822,2823,2824,2833,2834,2835,2836,2841,2842, 2843,2844,2851,2861, 2865,2869,2873,2874,2876,2891,2892,2893,2986,2899,2911,3312,4959,9511

Any additional information:

E. OTHER WASTE STREAM INFORMATION CONTINUED:

Is the Waste subject to RCRA Subpart CC controls? (40 CFR 265 SUBPART CC)	____ Yes ____ No
If "No", does the Waste meet the organic LDR exemption for UHC'S? (40 CFR 268.48, 268.7)	____ Yes ____ No
If "No", does the Waste contain <500ppmw volatile organic(VOC)? (40 CFR 265 SUBPART CC)	____ Yes ____ No
Does the Waste contain any Class I or Class II ozone-depleting substances?	____ Yes ____ No
If PCB'S are present, is the waste regulated by TSCA per 40 CFR 761?	Yes No

F. SHIPPING INFORMATION:

Method of Shipment:

_____ Bulk Liquid(> 500 Gallons)

_____ Cubic Yard Boxes

Drums (specify Size) _____ 55 gal _____ 30 gal _____ 16 gal _____ 5 gallon pail

Container Type: Metal _____ Poly _____ Fiber _____ Combination (Example: Glass containers in a drum)

Other (Please Descril_____

Shipping Frequency: How many? _____ How often?_____

Preferred Treatment Code _____

_____ Lab Pack

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BRENNTAG

Profile Number

G. R.C.R.A. CHARACTERIZATION:

Is this a USEPA "Hazardous Waste" per 40CFR 261.3?	Yes	No
If "No", Please skip to section H.		
Is this a "Universal Waste" per 40CFR part 273?	Yes	No
Is this a "Characteristic Waste"? If yes , check below	Yes	No
D001 Ignitable	D002 Corrosive	D003 Reactive
Is this an "F" or "K" Listed waste or mixed with or	Yes	No
If "Yes", Please list all applicable code(s) from 40CFR261.31 and/or 261.32:		
Is this a commercial chemical product or spill cleanup that would carry a "U" or "P" waste code under 40CFR 261.33 (e) or (f)?	Yes	No

If "Yes", Please list all applicable waste code(s): _____

H. DOT SHIPPING INFORMATION

Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ☐ Yes ☐ No

Proper Shipping Name per 49 CFR 172.101 Hazardous Materials Table: _____

"Reportable Quantity" (if any) _____ UN/NA _____

Hazard Class or Division: _____ Packing Group I II III

Is this a Poison Inhalation hazard? ☐ Yes ☐ No

If "Yes," please indicate Hazar Zone A Zone B Zone C Zone D Other _____

List two primary hazardous constituents: _____

I. GENERATOR CERTIFICATION:

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability. No deliberate or willful omissions of composition or properties exist and that all known or suspected hazards have been disclosed. I also certify that the obtained sample is representative of the waste material described above and give Brenntag Great Lakes permission and consent to make amendments and corrections.

Name(print): _____ Title: _____

Signature: _____ Date: _____

THIS SPACE FOR DISPOSAL FACILITY APPROVALS DEPARTMENT ONLY

Date Received / _____ Approvers initials _____ Profile Number

Process Code _____ Trans _____ 0 _____

Proper Waste Codes _____

Proper Dot Shipping Name _____

Hazard Class _____ I _____ II _____ III

NOS Descriptors _____

Yard Instruction

_____ MSDS Attached

_____ No Landfill Customer

_____ See Attached Analytical

_____ No Sample Approval

_____ Run Comp. On Incoming

Form Code W System Code H

EXHIBIT C

TC RULE
CERTIFICATION/RECERTIFICATION FORM

BRENNTAG TCLP & Receritification Sheet

Name:
Address:
City: State:
Waste Stream Descriptor:
Characteristics of Hazardous Waste described in CFR 40, part 261.22,23, and 24.

EPA Waste Code	Constituents	Regulatory Threshold	Does waste exceed regulatory threshold?		Concentrations based on the following information		Actual Value
TCLP Metals			Yes	No	Generators Knowledge	Scientific Data	ppm MG/L
D004	Arsenic As	5.00					
D005	Barium Ba	100.00					
D006	Cadmium Cd	1.00					
D007	Chromium Cr	5.00					
D008	Lead Pb	5.00					
D009	Mercury Hg	0.20					
D010	Selenium Se	1.00					
D011	Silver Ag	5.00					
TCLP Volatiles							
D018	Benzene	0.5					
D019	Carbon Tetrachloride	0.5					
D021	Chlorobenzene	100					
D022	Chloroform	6					
D028	1,2, Dichloroethane	0.5					
D029	1,1-Dichloroethene	0.7					
D035	Methyl Ethyl Ketone	200					
D039	Tetrachloroethylene	0.7					
D040	Trichloroethylene	0.5					
D043	Vinyl Chloride	0.2					
TCLP Semi Volatiles							
D023,24,25	Cresols O,M,P	200					
D027	1,4,Dichlorobenzene	7.5					
D030	2,4 Dinitrotoluene	0.13					
D032	Hexachlorobenzene	0.13					
D33	Hexachlorobutadiene	0.5					
D034	Hexachloroethane	3					
D036	Nitrobenzene	2					
D037	Pentachlorophenol	100					
D038	Pyridine	5					
D041	2,4,5Trichlorophenol	400					
D042	2,4,6Trichlorophenol	2					
TCLP Herbicides & Pesticides							
D020	Chlorodane	0.30					
D016	2,4 Dichlorophen-oxyacetic Acid	10.00					
D012	Endrin	0.02					
D031	Heptachlor and its Hydroxide	0.01					
D013	Lindane	0.40					
D014	Methoxychlor	10.00					
D015	Toxaphene	0.50					
D017	2,4,5 TP Silvex	1.00					

Generator's Certification

Name : _____ Signature : _____

Title : _____ Date : _____

EXHIBIT D

BOMB CALORIMETRY FORM

BRENNTAG GREAT LAKES, LLC

STANDARD OPERATING PROCEDURE

DATE ISSUED	DEPT	PREPARED BY	APPROVED BY	REVISION NUMBER	INSTRUCTION NO.
08/02	LAB	SR	MS	9	10,060.06

DISTRIBUTION: **LABORATORY, RECLAMATION & PROCEDURES MANUAL**

SUBJECT: Laboratory Analysis on Outbound Waste Tanker

OBJECTIVE: To quantify the mass of wastes shipped out of the facility and to ensure that we don't get a surcharge for low BTU, high ash, high chlorine, or high solids.

RESPONSIBILITY: All Laboratory Personnel

PROCEDURE

1. LUWA personnel will bring a representative one pint sample to the lab.
2. Fill out all needed information on Brenntag Bomb Calorimetry Form (see attached).
3. Transfer the sample material to a hydrometer cylinder and read the specific gravity with appropriate hydrometer.
4. Determine the weight per gallon as follows:

   Weight per Gallon = Specific Gravity x 8.34

5. Determine the pH of the waste as outline in 10040.08.
6. Determine BTU/lbs., % Chlorine, % Ash, as outlined in 10040.17 and 10040.19.
7. Call the LUWA supervisor and inform them of the results.

8. Determine the percent water as follows:

   a. Fill two test tubes 3/4 full of waste.

   b. Place the test tubes opposite each other in the centrifuge.

   c. Centrifuge samples for approximately 5 minutes on high speed.

   d. Allow the centrifuge to stop. Do not attempt to slow the centrifuge with your hand or other objects.

   e. Pour off the solvent and water layer into a separate test tube.

   f. Shake the liquid well, then titrate the water as outlined in 10,040.021.

9. Determine the percent solids as follows:

   a. Make up a 95/5 blend of xylene/methyl ethyl ketone(MEK).

   b. Place approximately 2 mL of the xylene/MEK blend in a test tube.

   c. Add approximately 2 mL of the waste to the test tube.

   d. Shake well, then centrifuge for 10 minutes.

   e. Allow the centrifuge to stop. Do not attempt to slow the centrifuge with your hand or other objects.

   f. Measure the overall length of the column of liquid and solids with a ruler.

   g. Measure the thickness of the solid layer.

   h. Determine the percent solids as follows:

      % Solids - 2x (solid layer/overall column) x 100

10. Any test that is out of specification must be reported to the laboratory supervisor, Manager of Reclamation Facility, foreman, or Reclamation Facility Supervisor for reblending of the waste or approval. If one of the above persons approves the waste for shipment they must initial the lab analysis next to the item which is out of spec.

SUMMARY: This procedure will enable us to determine the mass and safety of wastes shipped, as well as preventing surcharges due to low BTU or high ash, chlorine, water, etc.

BRENNTAG Bomb Calorimetry Form

Run Number:_____

Analysis Number:_____ Manifest Number:_____

Sample Material:_____

Carrier:_____ Destination:_____

Calculations:

Crucible:		Sample:	
Initial Weight:	_____g		_____g
Final Weight:	_____g		_____g

Parameter	Water Waste Specifications	Non-Water Waste Specifications	Results
Specific Gravity	0.8 - 1.4	Record	_____
Weight/Gallon	6.67-11.68	Record	_____
pH	3-12	3-10	_____
BTU/lb	<8000	>10,000; <10,000 reject	_____
% Chlorine	<2%	<2%; >2% reject	_____
% Ash	Record	Record	_____
% Water by weight	NA	>18%-Reject	_____
% Solids by volume	<10%	<18%	_____

Meets Customer Requirements: Yes:_____ No:_____

If NO, notify a facility supervisor immediately.

Approved By: _____

Date Completed: _____

EXHIBIT E

STANDARD OPERATING PROCEDURES

BRENNTAG GREAT LAKES, LLC

STANDARD OPERATING PROCEDURE

DATE ISSUED	DEPT	PREPARED BY	APPROVED BY	REVISION NUMBER	INSTRUCTION NO.
08/02	LAB	SR	MS	8	10,060.03

DISTRIBUTION: **LABORATORY, RECLAMATION & PROCEDURES MANUAL**

SUBJECT: Testing For Presence of PCBs in Inbound Waste (Chlorinated Waste Streams)

OBJECTIVE: To follow company procedures for chlorinated PCB analysis.

RESPONSIBILITY: Laboratory Technicians

PROCEDURE

SAFETY: Gloves, glasses, refer to SOP 10,020.08 for additional considerations.

1. 2 ml. of the chlorinated waste and l00 mls. of odorless mineral spirits are added to a side arm distillation flask (150mls).

2 The sample is then distilled at atmospheric pressure up to 408'F.

   a. This should leave 2-4 mls. of odorless mineral spirits and waste in the distillation flask.

3. The sample is allowed to cool, then transferred to a 100 ml. volumetric flask.

4. The distillation flask is rinsed with 25 mls. of isooctane three times.

5. The rinses are added to the 100 mls. volumetric and diluted with isooctane to the 100 mls. on the volumetric flask.

6. The PCB analysis is then completed on the G.C., following our normal method of analysis, (10,060.02) and run is checked with our PCB standards.

SUMMARY: By following this procedure, laboratory personnel will get accurate and consistent PCB results.

BRENNTAG GREAT LAKES, LLC

STANDARD OPERATING PROCEDURE

DATE ISSUED	DEPT	PREPARED BY	APPROVED BY	REVISION NUMBER	INSTRUCTION NO.
03/04	LAB	CB	MS	13	10,060.02

DISTRIBUTION: **LABORATORY, RECLAMATION, & PROCEDURES MANUAL**

SUBJECT: Inbound Testing Procedure for Wastes

OBJECTIVE: To Screen Inbound Waste For Compliance with Our Waste Analysis Plan

RESPONSIBILITY: Laboratory Technicians

PROCEDURE

PCB Analysis

1. If sample is chlorinated, follow SOP 10,060.03.
2. Bulk shipments must be run individually. A proportional composite of drum samples may be run with no more than 20 drums or 10 individual streams per run. (e.g. 1 pipet/1 drum)
3. Using a disposable syringe, place 2 mL of mixed sample into a 100 mL volumetric flask. Dilute to mark with isooctane, and mix well.
4. Transfer approximately 7 mL of the isooctane extraction to a test tube.
5. Add approximately 3 mL of concentrated sulfuric acid to the test tube.
6. Using extreme caution, carefully mix the contents of the test tube. Using a disposable pipet, remove the acid from the test tube (bottom layer) and place the acid in the waste acid container. If the acid has any color, repeat steps 5 and 6 until acid remains clear. Record the number of acid washes used on the PCB Analysis Form. (See attached.)
7. Once the sulfuric acid is no longer discolored, centrifuge the test tube on high speed for 1 minute for full separation of the acid and isooctane layers. Allow the centrifuge to stop in its own, and do not attempt to stop the centrifuge with any foreign objects.

8. Place a sample of the isooctane layer (top layer) into a gas chromatograph vial, and run the sample on the gas chromatograph using method PCB1.

9. Compare the sample run to the PCB standards. If the pattern of the sample matches that of a PCB standard, fail the material and report it to the laboratory supervisor immediately. Remember that retention times can be shifted and particular attention should be paid to the pattern of the run. The sample passes if no pattern match can be made.

Note: If there is too much interference in the scan, the sample must be cleaned further with more sulfuric acid washes, Florisil, silica gel, or potassium permanganate solution. Any extra cleaning steps taken must be noted on the PCB Analysis Form.

pH

1. Test the pH of the composite sample, and record the value on the attached form. All on-site approvals (as indicated by the *asterisk in the approval number) must have the pH tested and recorded for each individual stream. If a composite pH is less than 3 or greater than 11.5, test and record the pH of each individual sample from the composite to determine if an individual stream will not pass the pH specification. Contact the laboratory supervisor immediately if a pH is less than 2 or greater than 12.5 .

Reactivity

1. Mix a small portion of the waste sample with portions of other waste streams in our tanks.

2. Note any reaction including heat, effervescence, solidification, etc., on PCB Analysis form. The laboratory supervisor must be notified of any reactions. The sample passes if there are no reactions.

Radioactivity

1. Scan the composite sample with the lab Geiger counter. The sample passes if there is no detection by the Geiger counter.

SUMMARY: This procedure outlines the steps necessary to meet the requirements of our waste analysis plan.

PCB Analysis Form

CUSTOMERS**:	WASTE APPROVAL #:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**No more than 20 drums or 10 individual streams may be combined for each composite. Bulk streams must be run individually.

TEST PROCEDURE:	SPECIFICATION:	RESULT:
Acid Washes	Record Number	_____
pH***	2.0 - 12.5***	_____
Radioactivity	Negative Detect	_____
Reactivity	Negative Detect	_____
PCB	Negative Detect	_____

*** All on-site approvals must have the pH tested and recorded for each individual stream.

*** If the composite pH is less than 3 or greater than 11.5, test and record the pH of each individual sample from the composite to determine if an individual stream will not pass the pH specification.

NOTES (i.e. florisil or silica gel use):

ANALYZED BY: _____ ANALYSIS #: _____

EXHIBIT F

DNR CERTIFICATION

State of Wisconsin
Department of Natural Resources

recognizes

Wisconsin Registration under NR 149

of

Brenntag Great Lakes, LLC

Laboratory Id: **268175490**

as a laboratory licensed to perform environmental sample analysis in support of covered environmental programs (ch. NR149.02 Note) for the parameter(s) specified in the attached Scope of Accreditation.

August 31, 2013

Expiration Date

August 20, 2012

Issued on

Camille Turcotte, Chief
Environmental Science Services

Cathy Stepp, Secretary
Department of Natural Resources

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control practices, records, and proficiency of the laboratory have been reviewed and found to satisfy the requirements of ch. NR 149, Wis. Adm. Code.

EXHIBIT G

REPRESENTATIVE WASTE ANALYSIS

Date: 05/22/13 FOR INTERNAL USE ONLY Analysis No.: 091312R
Prod No. : 900002

Customer: RUSTOLEUM CORPORATION
Address: 8105 95TH STREET
City Ste: PLEASANT PRAIRIE WI 531580222
Phone: 262-947-675
EPA No.: D988575452
Contact: MICHELLE KAWA
Salesman: 107
Broker:

Phases/Layers: 2
Color: VARIES
Flash Point:
pH: 7.0

	Components	Percent
1)	TOLUENE	25.8
2)	VM&P NAPHTHA	22.3
3)	ACETONE	14.3
4)	XYLENE	12.3
5)	METHYL ISOAMYL KETONE	3.4
6)	GLYCOL ETHER PM ACETATE	2.9
7)	N-BUTYL ACETATE URETHANE GRADE	2.8
8)	AROMATIC 100	2.4
9)	ETHYL ACETATE 99% URETHANE GRD	1.9
10)	METHYL N-AMYL KETONE	1.9
11)	METHYL ETHYL KETONE	.8
12)	ISOPROPYL ALCOHOL 99% USP	.6
13)	ETHANOL PURE 200 PF USP KOSHER	.3
14)	METHYL ISOBUTYL KETONE	.3
15)	N-BUTYL ALCOHOL	.2

EPA Waste Code: F003
Secondary Codes: (D001)
Percent Recovery: 80
Specific Gravity: 0.863
Water Content: 2.00
pH: 7.0
Date: 9/13/12
Tested by:
DOT Description: RQ WASTE PAINT RELATED MATERIAL PG II

Other Information: JN

Comments:

REQUAL WASTE PAINT RECLAIM & RETURN

APPENDIX F

CONTINGENCY PLAN

HAZARDOUS WASTE STORAGE FACILITY CONTINGENCY PLAN

[NR 664.0052 and NR 670.014(2)(g)]

BRENNTAG GREAT LAKES, LLC (WID 023 350 192)
HAZARDOUS WASTE STORAGE AND RECYCLING FACILITY
N59 W14706/N59 W14776 BOBOLINK AVENUE
MENOMONEE FALLS, WISCONSIN 53051

June 6, 2013

CONTINGENCY PLAN
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CONTINGENCY PLAN
TABLE OF CONTENTS
(Continued)

EXHIBITS

Section 1
INTRODUCTION

1.1 Purpose of Contingency Plan *[NR 664.0051(1) and (2)]*

Wisconsin Administrative Code Section NR 664, Subchapter D requires owners and operators of all hazardous waste facilities to develop a Contingency Plan. The intent of this plan is to prevent or minimize human health or environmental damage in the event of a fire, explosion, or any unplanned sudden or nonsudden discharge of hazardous waste to air, land, groundwater or surface water. The provisions of this plan will be implemented immediately in the event of a fire, explosion or discharge of hazardous waste that could threaten human health or the environment.

1.2 Plan Submittal Requirements *[NR 664.0052(3) and NR664.0053]*

Copies of this contingency plan and all revisions of the plan are maintained by the facility and shall be submitted to the following:

1) Kept at the Facility
2) Local Police Department(s)
3) Local Fire Department(s)
4) Local Hospital(s)
5) Local Emergency Response Teams
6) Wisconsin DNR

Arrangements are made and maintained with the local agencies by Brenntag personnel.

1.3 Plan Amendments *[NR 664.0054]*

This contingency plan shall be reviewed and immediately amended, if necessary, whenever any of the following occurs:

1) The facility operating license is amended;
2) The contingency plan fails in an emergency;
3) There are changes at Brenntag that increase the potential for fire, explosion or discharge of hazardous waste, or changes that affect the response necessary in an emergency;
4) The list of emergency coordinators changes; or
5) The list of emergency equipment changes.

1.4 Definitions

Terms used in this contingency plan are defined as follows:

Chapters NR 660-679 of the Wisconsin Administrative Code, entitled Hazardous Waste Management, regulate the generation, transportation, treatment, storage and disposal of hazardous waste.

Resources Conservation and Recovery Act (RCRA) is the Federal statute that regulates the generation, treatment, storage, disposal, and recycling of solid and hazardous waste.

Hazardous Waste means a solid waste that fits the definition of hazardous waste in Section NR 661.03 and is not excluded by the provisions of Section NR 661.04. It can be hazardous by characteristics or it can be a specifically listed hazardous waste.

Characteristic Hazardous Waste is a waste classified as hazardous because it is ignitable, corrosive, reactive, or toxic. It has a waste code in the range of D001 to D043.

Listed Hazardous Wastes are those wastes specifically named under Section NR 661.30. They have waste codes beginning with the letters F, K, P, or U.

Identification Number means the unique number assigned to each generator, transporter or treatment, storage or disposal facility. This identification number is identical to the EPA identification number assigned by the EPA to each generator, transporter or treatment, storage or disposal facility.

Incompatible Waste means a hazardous waste that is unsuitable for:

a. Placement in a particular device, site or facility because it may cause corrosion or decay of containment materials, such as the container, inner liners or tanks walls.

b. Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases, or flammable fumes or gases.

Manifest means the shipping document state of Wisconsin form 4400-66 or EPA form 8700-22 and, if necessary, EPA form 8700-22A, originated and signed by the generator in accordance with the requirements of s. NR 662 to 665.

Manifest Discrepancy means the differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or types of hazardous waste a facility actually receives.

Manifest Document Number means the EPA identification number assigned to the generator plus a unique 5-digit document number assigned to the manifest by the generator for recording and reporting purposes.

Sorbent means a material that is used to soak up free liquids by either adsorption or absorption, or both. Sorb means to either adsorb or absorb, or both.

Spent Material means any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

Triple-Rinsed means that a container has been flushed 3 times, each time using a volume of diluent at least equal to 10% of the container's capacity.

Characteristic of Ignitability - A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

1. It is a liquid, other than an aqueous solution containing less than 24% alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens closed cup tester, using the test method specified in ASTM standard D-93-96, or a Setaflash closed cup tester, using the test method specified in ASTM standard D-3278-82, or as determined by an equivalent test method approved by EPA or the Department set forth in NR 660.20 and 660.21.
2. It is not a liquid and is capable, at a temperature of 25°C and a pressure of one atmosphere, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
3. It is an ignitable compressed gas as defined in 49 CFR 173.300 October 1, 1990, and as determined by the test methods described in that regulation or equivalent test methods approved by EPA.
4. It is an oxidizer, such as a chlorate, permanganate, inorganic peroxide, nitro carbo nitrate or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

A solid waste that exhibits the characteristic of ignitability has the hazardous waste number of D001.

Characteristic of Corrosivity - A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

1. It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using method 9040B in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", as incorporated by reference in s. NR 660.11.
2. It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) standard TM-01-69 as standardized in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", as incorporated by reference in S. NR 660.11

A solid waste that exhibits the characteristic of corrosivity has the hazardous waste number of D002.

Characteristic of Reactivity - A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

1. It is normally unstable and readily undergoes violent change without detonating.
2. It reacts violently with water.
3. It forms potentially explosive mixtures with water.
4. When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
5. It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
6. It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
7. It is readily capable of detonation or explosive decomposition or reaction at a temperature of 25°C and a pressure of one atmosphere.
8. It is a forbidden explosive as defined in 49 CFR 173.51 [October 1, 1990], or a Class A explosive as defined in 49 CFR 173.53 {October 1, 1990], or a Class B explosive as defined in 49 CFR 173.88 [October 1, 1990].

A solid waste that exhibits the characteristic of reactivity has the hazardous waste number of D003.

Toxicity Characteristic - A solid waste exhibits the characteristic of toxicity if, using the toxicity characteristic leaching procedure, test method 1311 in EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", as incorporated by reference in s. NR 660.11, the extract from a representative sample of the waste contains any of the contaminants listed in Table I of NR 605 at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5% filterable solids, the waste itself, after filtering using the methodology in method 1311, is considered to be the extract for the purpose of this subsection.

A solid waste that exhibits the characteristic of toxicity has the hazardous waste number specified in table I which corresponds to the toxic contaminant causing it to be hazardous.

Very Small Quantity Generator is defined as a facility that generates less than 220 pounds of hazardous waste per month, and does not accumulate at any one time more than 2,205 pounds of hazardous waste, or more than 2.2 pounds of acute hazardous waste, or more than 220 pounds of acute hazardous waste spill clean-up material.

Small Quantity Generator is defined as a facility that generates hazardous waste quantities of at least 220 pounds but less than 2,205 pounds in any one month, and does not accumulate at any one time more than 6,000 pounds of hazardous waste, or more than 2.2 pounds of acute hazardous waste, or more than 220 pounds of acute hazardous waste spill clean-up material.

Large Quantity Generator is defined as a facility that generates 2,205 pounds or more of hazardous waste in any single month, or accumulates at any one time more than 6,000 pounds of hazardous waste, more than 2.2 pounds of acute hazardous waste, or more than 220 pounds of acute hazardous waste spill clean-up material.

Storage Facility means a facility, or part of a facility, which stores hazardous waste, except for a generation site where a generator stores its own waste, or a transfer facility.

Recycling means the beneficial use, reuse, or legitimate recovery or reclamation of a hazardous waste. Recycling includes the recovery of energy from hazardous waste.

Recycling Facility means a facility where waste is recycled and may include a facility where waste has been generated.

Section 2
FACILITY INFORMATION

2.1 Property Location

Brenntag is located at N59 W14706 and N59 W14776 Bobolink Avenue in the Bowling Green Industrial Park in Menomonee Falls. Bobolink Avenue can be accessed from Lilly Road. A U.S.G.S. Map and Local Street Map are provided as Exhibits A and B, respectively.

2.2 Facility Description

The Brenntag operations include a Drum Storage and Processing Building, a Lab and a Containment Pad Facility. A Site Plan is included as Exhibit C.

The Drum Storage and Processing Building is located on the west side of the site. It is divided into four areas as follows:

- Process Room
- Drum Storage Area
- Laboratory
- Maintenance Shop

The building is constructed of steel and masonry. There is a 2-hour firewall between the Drum Storage Room and the Process Room and a 4-hour firewall between the Drum Storage Room and the other areas of the building. The Drum Storage Room is designed to hold 55,000 gallons of hazardous waste in containers stored on racks. Brenntag maintains adequate aisle space within the Drum Storage and Processing Building to allow unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of the facility in an emergency. A layout of the Drum Storage and Processing Building is provided as Exhibit D.

Facility personnel may be present in the Process Room, Drum Storage Area and Laboratory 24 hours a day, 7 days a week. The Maintenance Shop is typically only occupied 8 hours a day, 5 days a week.

The Solvent Facility Containment Pad is located east of the Drum Storage Area. In this area, tanker to tanker transfers are conducted with pumps on trucks or with vacuum systems. Tanker transfers also take place at the containment area located directly west of the tank farm dike. Tankers are considered containers and are included in the 55,000 gallon allowable volume of hazardous waste on-site.

Facility personnel may be present in the Facility 24 hours a day, 7 days a week.

2.3 Waste Storage and Recycling Operations

The types of wastes Brenntag stores are primarily organic materials that are suitable for fuel blending. Brenntag does not accept any reactive (D003) or corrosive (D002) wastes from offsite. Brenntag does store some acid wastes that are generated on site. A list of the EPA codes and descriptions for the wastes Brenntag currently accepts is provided as Exhibit E.

Hazardous wastes arrive at the facility in containers, such as 55-gallon drums or bulk tankers. Partially filled bulk tankers are transferred directly into another tanker, which is kept on site until full. Full tankers are manifested and shipped off-site for reclamation, fuel blending or disposal. Containers are unloaded from the enclosed semi-trailers using forklifts and are taken to the Drum Storage Room or are transported to the tanker containment area for fuel blending into partially-filled tankers. Empty containers are shipped to a drum recycler.

The material in the tankers may be comingled. Waste, which has a minimum BTU value, is shipped offsite for use as a secondary fuel. Wastes, which are not suitable for fuel blending, are shipped off site for disposal.

2.4 Facility Sewer Systems

Brenntag is served by a municipal sanitary sewer system. Sanitary wastewater is discharged to the Menomonee Falls sanitary sewer system. It is then conveyed to the Milwaukee Metropolitan Sewerage District's wastewater treatment system. There are no connections to the sanitary sewer from the Drum Storage Room or Tanker Fuel Blending areas.

Storm water runoff from the site drains to the drainage ditches, which surround the property on all four sides. The drainage ditches discharge to the Lilly Creek tributary to the Menomonee River. A Storm Water Drainage Map is provided as Exhibit F.

The truck unloading area for the Drum Storage and Processing Building is designed to contain spills. It has a secondary containment capacity of 5,925 gallons. The concrete pad in the truck loading/unloading dock is curbed and sloped to a collection sump. It has a secondary containment capacity of 7,911 gallons. The truck loading/unloading area for fuel blending is surrounded by concrete and asphalt curbing. The curbing around this area provides 6,004 gallons of secondary containment plus 2.88" of additional freeboard. Secondary containment calculations can be found in Brenntag's SPCC Plan for the facility.

Contaminated groundwater, which is collected from trenches beneath the Tank Farm can be pumped to Brenntag's Chemical Distribution Facility on the south side of Bobolink Avenue and treated using an air stripper. This system was shut down several years ago but remains operational in case it is needed in the future. The treated groundwater was being discharged to the sanitary sewer system. However, it has been redirected to the drainage ditch on the south side of the property. Brenntag has a WPDES permit for this discharge.

2.5 Nearest Navigable Waterway

The nearest navigable waterway is Lilly Creek. The U.S.G.S. Map in Exhibit A shows the location of Lilly Creek with respect to the Brenntag property.

2.6 Utilities

Electricity is supplied by WE Energies. The electricity to the entire plant can be shut off at the Main Electrical Panel on the west wall of the Maintenance Shop. There are also panels on the north wall of the Maintenance Shop to shut down the electricity in various areas of the plant.

Natural gas is supplied by WE Energies. The main supply enters the property at the meter located near the main gate. A shut-off valve is located at the meter.

Water is supplied by the Village of Menomonee Falls.

Section 3
SPILL PREVENTION

3.1 Inspections

Brenntag conducts daily inspections of the hazardous waste storage and processing areas to identify potential leaks or spills from tanks, containers, piping, or secondary containment systems. The inspections are recorded on inspection forms. Copies of the Daily Process/Storage Inspection Form and Daily Tank Farm/Evaporator Inspection Form are included as Exhibit G.

3.2 Containment

Drum Storage and Processing Building

The drum storage and process rooms in the Drum Storage and Processing Building have concrete floors. All control and construction joints in the floor and in the truck unloading pad outside have waterstops and concrete sealant material. The floors inside the building are sloped to direct spills to collection trenches. The doorways are ramped to prevent spills from exiting the building. The spill collection trenches drain by gravity to conveyance piping which is connected to an outside aboveground spill collection tank.

The spill collection tank is located near the northeast corner of the Drum Storage and Processing Building. It has a capacity of 6000 gallons. The Drum Storage Building and Processing Building is designed to store 55,000 gallons of hazardous waste in containers. The secondary containment tank can hold 10 percent of the total storage capacity. The tank is steel construction with two compartments. It was designed with two compartments to prevent the entire tank from being contaminated by small spills. Spills that are less than 160 gallons will be contained in the first compartment. Larger spills will overflow to the second compartment. The first compartment has a level sensor. If a spill occurs, the level sensor will send a signal to an emergency alarm panel located in the maintenance shop where it will trigger an audible and visual alarm. The audible alarm can be heard both inside and outside the building.

The spill collection tank will also function as an oil/water or solvent/water separator in the event of a fire. The tank contains an underflow baffle that will allow water to pass through while lighter materials such as solvents and oils will be retained in the tank. The tank has three manways to allow access for inspection, material sampling, and cleaning purposes.

The truck unloading pad is designed to contain spills. The pad is curbed and sloped to a collection sump. It has a secondary containment capacity of 2000 gallons. This pad also provides additional secondary containment capacity for the Drum Storage and Processing Building because the spill collection tank overflows to this pad.

3.3 Training [NR 664.0055]

The following personnel are trained as Incident Commanders:

- Kevin Bagin
- Mike Schick
- Bill Banaszak
- Judy Ninke

Additional personnel, listed in Section 6.1, are also trained as Emergency Coordinators. The facility Emergency Coordinators are thoroughly familiar with all aspects of this Contingency Plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of manifests within the facility, and the facility layout. The Emergency Coordinator shall have the authority to commit the resources needed to carry out the Contingency Plan.

All other personnel handling hazardous waste receive 40 hours of initial training as hazardous waste site workers and 8 hours of refresher training annually. Standard Operating Procedure 7010.02 outlines the requirements for Hazardous Waste Training and Employee Physicals.

A description of the training provided for the primary job positions at the Hazardous Waste Storage and Recycling Facility is provided in the Training Manual. A copy of this manual is provided in Appendix G of the Feasibility and Plan of Operation Report.

Section 4
EMERGENCY RESPONSE PROCEDURES

4.1 Spill Response [NR 664.0052 (1) and (2)]

Spill response procedures will vary depending upon the type and severity of a spill. The employee who discovers a spill shall use reasonable measures to stop or contain the spill if it can be done without harm to personnel or property. Employees shall wear protective clothing and use protective equipment as appropriate for the type of material spilled. Appropriate measures shall be taken, depending on the cause of the spill, such as closing valves or placing containment booms around the area. If a small spill occurs within the building, floor drains should be blocked to prevent the spill from entering the drainage trenches. If the spill occurs outdoors, measures should be taken to insure that the spill does not leave a contained area and contaminate the ground or migrate offsite. Responses to three typical spill scenarios follow.

Hose Rupture

If while conducting a tanker transfer, a hose should split, perform the following:

1) Immediately close the bottom valve and top hatch of the vessel;
2) Contain any spilled material to the smallest possible area;
3) Add absorbent to affected areas; and
4) Call the Emergency Coordinator immediately.

Container Leak or Spill

The following steps will be taken in the event of a container leak or spill in the Drum Storage and Processing Building or in the loading dock area:

1) Identify the source of the release and stop it as soon as physically possible, in a safe manner;
2) Determine the quantity of the release and the type of material;
3) Clean up the material with appropriate equipment or materials. This usually consists of containing the release and absorbing the waste material with floor dry or another appropriate absorbent;
4) Place the material in a container and label it accordingly; and
5) Notify the Emergency Coordinator.

4.2 Fire/Explosion Response [NR 664.0052 (6)]

Upon discovery of a fire and/or an explosion, the fire alarm shall be activated and **all personnel shall immediately evacuate**. A drawing showing evacuation routes is provided as Exhibit H. Evacuation rally points are shown on Exhibit I. Copies of the evacuation plan are posted in the plant, and exit doors designated as evacuation routes are identified with signs.

The fire department shall be called and the Emergency Coordinator or his alternate shall be notified. If there are personal injuries requiring medical attention, an ambulance shall also be called.

No employees shall re-enter the building or area while the fire department is responding. The fire department shall determine when it is safe for employees to return to the building.

Flammable liquid fires should be fought with Class B or C extinguishers only. Class A extinguishers will only spread a burning liquid further.

Electrical apparatus fires should be fought only with Class B or C extinguishers and preferably with Class C. In no case should a Class A extinguisher be used on electrical equipment.

Trash, wood, or paper fires are best controlled with a Class A extinguisher.

4.3 Flood Response

If more than six inches of water is present in the building or working areas, the following flood response procedures shall be followed:

1) If telephone system is working, advise all employees by intercom system, to carry out emergency flood response acts and then vacate the area.

2) Contact Emergency Coordinator.

3) Maintenance personnel shall turn off all gas valves feeding pilot lights in the main and auxiliary heaters, air conditioners and other gas-fired equipment

4) Maintenance personnel shall turn off main electrical boxes.

5) Response crews shall elevate all moveable water sensitive materials as quickly as possible to higher areas such as mezzanines or trailer beds as directed by Emergency Coordinator.

4.4 Emergency Shutdown Procedures

Emergency shutdown procedures for all employees include closing valves and securing equipment.

4.5 Evacuation Procedures [NR 664.0052 (6)]

Plant personnel shall evacuate through any of the designated evacuation exits. Two rally points have been selected, one to the east at 5900 North Lilly Road and one at the west end of Bobolink Avenue. Personnel should select the safest rally point, depending upon the location and severity of the disaster. Personnel shall remain at the rally point until the Emergency Coordinator has determined that all employees are accounted for. A drawing showing the evacuation routes is provided as Exhibit H. Rally points are shown on Exhibit I.

4.6 Responsibilities of Emergency Coordinator [NR 664.0056 (1-8)]

The Emergency Coordinator or alternate, with the assistance of emergency personnel, will take measures to contain the hazard within the facility and to prevent its spread to other nearby businesses. All non-essential personnel will be dismissed and the Menomonee Falls and Butler Mayors will be consulted regarding evacuation of certain surrounding areas, if necessary. A summary of the Emergency Coordinator's responsibilities is listed on the following page.

During an emergency, the Emergency Coordinator takes reasonable measures necessary to ensure fire explosion or release do not occur, recur or spread to other hazardous waste. These measures include where applicable, stopping processes and operations, collecting and containing released waste and removing or isolating containers.

RESPONSIBILITIES OF EMERGENCY COORDINATOR

1) Assess the incident and determine the following:

- ☐ Cause;
- ☐ Type of material involved;
- ☐ Volume of material;
- ☐ Migration rate;
- ☐ Type and grade of migration surface;
- ☐ Characteristics of migration route;
- ☐ Availability of required containment materials; and
- ☐ Personnel safety requirements (check MSDS's).

2) If the incident has the potential to endanger plant personnel or the community, notify local emergency responders (i.e. police, fire, ambulance, etc.) and evacuate the facility as deemed necessary. (See Section 6.3 of this Contingency Plan for local emergency responders' telephone numbers.)

3) The Emergency Coordinator will activate internal facility alarms or communication systems, where applicable to notify all facility personnel. If the release has the potential to threaten human health or the environment, notify the regulatory agencies and the Division of Emergency Government that a release has occurred. Provide the name and address of the facility, name and number of reporter, time of incident, name and quantity of material involved to the extent known, type of incident, type and quantity of materials involved, extent of injuries, and possible hazards to human health or the environment outside the facility. (See Section 6.2 of this Contingency Plan for agency phone numbers.)

4) If spill has entered the sanitary sewer system, notify the Milwaukee Metropolitan Sewerage District. (See Section 6.2 of this Contingency Plan)

5) Coordinate clean-up of the spill and any contaminated materials or soil. If outside assistance is necessary to contain and/or clean up the spill, contact a spill clean-up contractor. If spill can be easily contained and cleaned up by plant personnel, supervise personnel in the clean-up as follows:

- ☐ Shut down operations, if appropriate.
- ☐ Provide personnel with necessary safety equipment and clothing.
- ☐ Minimize or contain migration of spill with absorbent booms, socks, mats, etc.
- ☐ Prevent spill from entering the environment.
- ☐ Clean up spill with appropriate absorbent material.
- ☐ Decontaminate spill area and response equipment.
- ☐ Dispose of spilled material and any other contaminated material in accordance with applicable disposal regulations.

6) Monitor for leaks, pressure build-up, gas generation or ruptures in valves, pipes or other equipment, where appropriate. Emergency Coordinator arranges for treatment, storage, or disposal of materials after an emergency.

7) Ensure that, in the affected areas of the facility, no waste that may be incompatible with the discharged material is treated, stored or disposed of until cleanup procedures are completed; and all emergency equipment is clean and fit for its intended use before operations are resumed.

8) Notify the DNR and LEPC that the facility has complied with Item 7 above before operations are resumed in the affected areas of the facility.

RESPONSIBILITIES OF EMERGENCY COORDINATOR
(continued)

9) Maintain a log of the events that take place during the incident to include the following:

- ☐ Date and time of incident.
- ☐ Type of material involved in the incident.
- ☐ Volume of material involved in the incident.
- ☐ Location of the incident.
- ☐ Name, address, and EPA I.D. No. of the generator, if appropriate.
- ☐ Extent of injuries, if any.
- ☐ Spill control and countermeasures taken.
- ☐ Estimated quantity and disposition of recovered materials, if any.
- ☐ Persons contacted, time of contact, and conversation.

10) Complete an Incident Report and submit a copy to the DNR within 5 days (See Exhibit J).

4.7 Incident Review and Follow-Up [NR 664.0056 (9) and (10)]

Following a hazardous waste release or a fire or explosion involving a hazardous waste, the company personnel shall evaluate the cause of the incident to determine how future incidents can be avoided. The response measures implemented shall also be reviewed to determine their effectiveness at minimizing the release to the environment. If necessary, additional measures will be implemented to prevent a reoccurrence. These measures may include new equipment or controls, more frequent inspections, or additional employee training. This Contingency Plan shall be amended, as deemed necessary, following an incident.

An Incident Report must be completed and submitted to the Wisconsin DNR within 15 days of a hazardous waste release or a fire or explosion involving a hazardous waste. An Incident Report form is provided as Exhibit J of this plan.

Section 5
ON-SITE EMERGENCY EQUIPMENT
[NR 664.0052 (5)]

Drawings G-3 and G-6 included as Exhibit H, show the locations of the emergency equipment on site. The following subsections describe the types of equipment and the locations.

5.1 Communications Equipment

Telephones are located in the office, laboratory, Drum Storage Room and in the trailer located adjacent to the Solvent Reclamation Facility Pads.

The following information is posted next to each telephone that can be used when responding to an emergency:

- ❒ Name and telephone number(s) of primary and alternate Emergency Coordinators.
- ❒ Telephone numbers for the fire department, police department, and ambulance.

The ***intercom system*** can be used to communicate messages throughout the facility. The intercom system should be used to evacuate the facility and to announce the location of a fire.

5.2 Spill Response and Personal Protective Equipment

Overpack drums containing spill control socks and booms are located in the Drum Storage Room, in the Process Room, and in the Solvent Reclamation Facility. Spill clean-up chips and oil absorbent bags are located in the Drum Storage Room. Brenntag owns a 6,500-gallon vacuum tanker that can be used to collect and hold liquid from a spill.

Self-contained breathing apparatus (SCBA) are located in the Maintenance Shop and in the South Warehouse located across the street from the Hazardous Waste Storage and Recycling Facility. The safety cabinet contains organic vapor respirators. All personnel are certified to wear respirators. Gloves, safety glasses, and protective suits are also stored in the safety cabinet and in the trailer.

5.3 Medical and Safety Response Equipment

Emergency eye wash stations are located in the Maintenance Shop, Process Room, Laboratory, and Solvent Reclamation Facility. There is a first aid kit in the Lunchroom located across the street from the Hazardous Waste Storage and Recycling Facility. Additional safety and medical supplies are located in the safety cabinet in the South Warehouse.

5.4 Loss Prevention Equipment

Fire extinguishers are located at each exit door within the Drum Storage and Processing Building. Fire extinguishers are also located in the Solvent Reclamation Facility. There is also an emergency fire hose on the west wall of the Drum Storage Room. The fire extinguishers are inspected monthly by Brenntag and annually by Automatic Fire Protection. The drum storage and process rooms have 100 percent sprinkler coverage. A list of the fire extinguishers and drawings showing the sprinkler system are provided as Exhibit K.

The Menomonee Falls Fire Department has A-FFF Foam for fighting solvent fires. They maintain this material at the fire station at all times. The fire station is approximately two miles from the Brenntag facility.

Battery-powered emergency lighting is available both indoors and outdoors to allow safe evacuation of employees if there is a power outage. It is also inspected by Automatic Fire Protection.

Section 6
EMERGENCY CONTACTS

6.1 Emergency Coordinators [NR 664.0052 (4)] [NR 664.0055]

Ms. Judy Ninke is the primary **Emergency Coordinator**. She shall be contacted immediately if a hazardous waste is released or if there is a fire, explosion, or flood at the facility. In the event that Ms. Ninke cannot respond, one of the alternate Emergency Coordinators shall be contacted immediately. The telephone numbers for these individuals are as follows:

Primary Emergency Coordinator

Ms. Judy Ninke
- Office Phone: (262) 252-6464
- Home Phone: (262) 338-0149
- Cell Phone: (262) 853-6594

Alternate Emergency Coordinators

Employee	Shift	Position	Office Phone	Home Phone
Bill Banaszak	1	Technical Director	(262) 252-6142 (262) 613-2259 (Cell)	(414) 299-3717
Michael R. Schick	1	Technical Director/Chemist	(262) 252-6246 (262) 853-6603 (Cell)	(262) 567-2725
Kevin Bagin	1	Vice President, Operations	(262) 252-6430 (262) 853-6596 (Cell)	(262) 628-2203
Scott M. Rhodes	1	Operations Manager/Chemist	(262) 252-6286 (262) 613-3304 (Cell)	(262) 246-4564
Larry A. Dietrich	1,2	Supervisor	(262) 252-6135 (262) 613-2101 (Cell)	(262) 968-2160
Lynn W. Kutchman	1	Supervisor	(262) 252-6282 (262) 613-4075 (Cell)	(262) 628-1933
Brad Kaehler	1,2	Supervisor	(262) 613-3587 (Cell)	(262) 251-8826
Frank B. Davison	1,2		(262) 252-3550	(414) 529-3294
Herb Bagely	1,2		(262) 252-3550	(414) 702-2536
Bill Grulkowski	1,2	Assistant	(262) 252-3550	(414) 466-0561
Foilan Muro	1,2	Warehouse / Waste	(262) 252-3550	(414) 837-1071

If an incident requires the fire department to be called to the site, they may take over as the Incident Commander when they arrive on site; and the Emergency Coordinator will take direction from them.

When the facility is not in operation, such as on holidays, an Emergency Coordinator shall be on call and available to respond to an emergency in a short period of time.

6.2 Government Agencies [NR 664.0056 (4)a & (4)b]

In the event of a hazardous waste release to the environment (i.e. soil, groundwater, sewer system, and air) or a spill that leaves the property, the Emergency Coordinator shall contact the appropriate government agencies, as required, depending upon the type and location of the release. The agency phone numbers are as follows:

1) U. S. Coast Guard National Response Center
   Phone: (800) 424-8802

2) Wisconsin Emergency Government (24 Hours)
   Phone: (800) 943-0003

3) Wisconsin DNR - Southeast District Office
   Phone: (414) 263-8491

4) Milwaukee Metropolitan Sewerage District
   Phone: (414) 282-7200

5) Milwaukee County Division of Emergency Government
   Phone: (414) 278-4709

6) U.S. EPA Region V
   Phone: (312) 353-2197

6.3 Local Emergency Responders

In the event of a release, fire, or explosion at the facility, the Emergency Coordinator shall also contact the following agencies if their assistance is required:

Fire:	Menomonee Falls Fire Department **Emergency: 911** Non-Emergency: (262) 255-8347
Medical:	Community Memorial Hospital Non-Emergency: 251-1000 **Ambulance: 911** Sensia Healthcare Non-Emergency: 414-354-0800
Police:	Menomonee Falls Police Department **Emergency: 911** Non-Emergency: (262) 251-6063

A copy of this plan and any amendments shall be provided to the Menomonee Falls Fire Department, the Menomonee Falls Police Department, and Community Memorial Hospital. Copies of the notification letters sent with the plans are included as Exhibit L.

6.4 Spill Clean-Up Contractors

In the event that a spill occurs which requires a contractor's assistance to contain and clean up, Brenntag shall contact the following company:

The Emergency Coordinator has authority to contact resources to carry out contingency plan.

A list of the emergency equipment is included as Exhibit M.

6.5 Emergency Information Sources

The Material Safety Data Sheet (MSDS) can be referred to for emergency information regarding a spilled material. MSDS 's are maintained on the BUS computer system, and can be obtained from any computer in the Great Lakes Region, with a hard copy original at the Wauwatosa facility.

If additional information is needed, call the following source:

Chemtrec: (800) 424-9300

6.6 Emergency Coordinator Addresses

Employee	Position	Office Address	Home Address
Kevin Bagin	Vice President, Operations	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	1655 Kelli Jean Court Hubertus, WI 53033
Froilan Muro	Warehouse / Waste Operator	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	
Larry A. Dietrich	Supervisor	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	W305 S5072 Hwy 83 Mukwonago, WI 53149
Bill Banaszak	Technical Director	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	3134 N. 74th Street Milwaukee, WI 53216
Bill Grulkowski	Warehouse / Waste Operator	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	5810 N. 82nd Street Milwaukee, WI, 53218
Mike Roebken	Warehouse / Waste Operator	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	
Judith Ann Ninke	Manager of Solvent Reclamation Facility	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	1966 David's View W West Bend, WI 53095
Scott M. Rhodes	Operations Manager/Chemist	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	N89 W17773 Martin Drive Menomonee Falls, WI 53051
Brad Kaehler	Supervisor	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	W217 N9813 Whitehorse Dr. Colgate, WI 53017
Michael R. Schick	Technical Director/Chemist	N59 W14765 Bobolink Avenue Menomonee Falls, WI 53051	W340 N4931 Road O Nashotah, WI 53058

EXHIBIT A

U.S.G.S TOPOGRAPHIC MAP

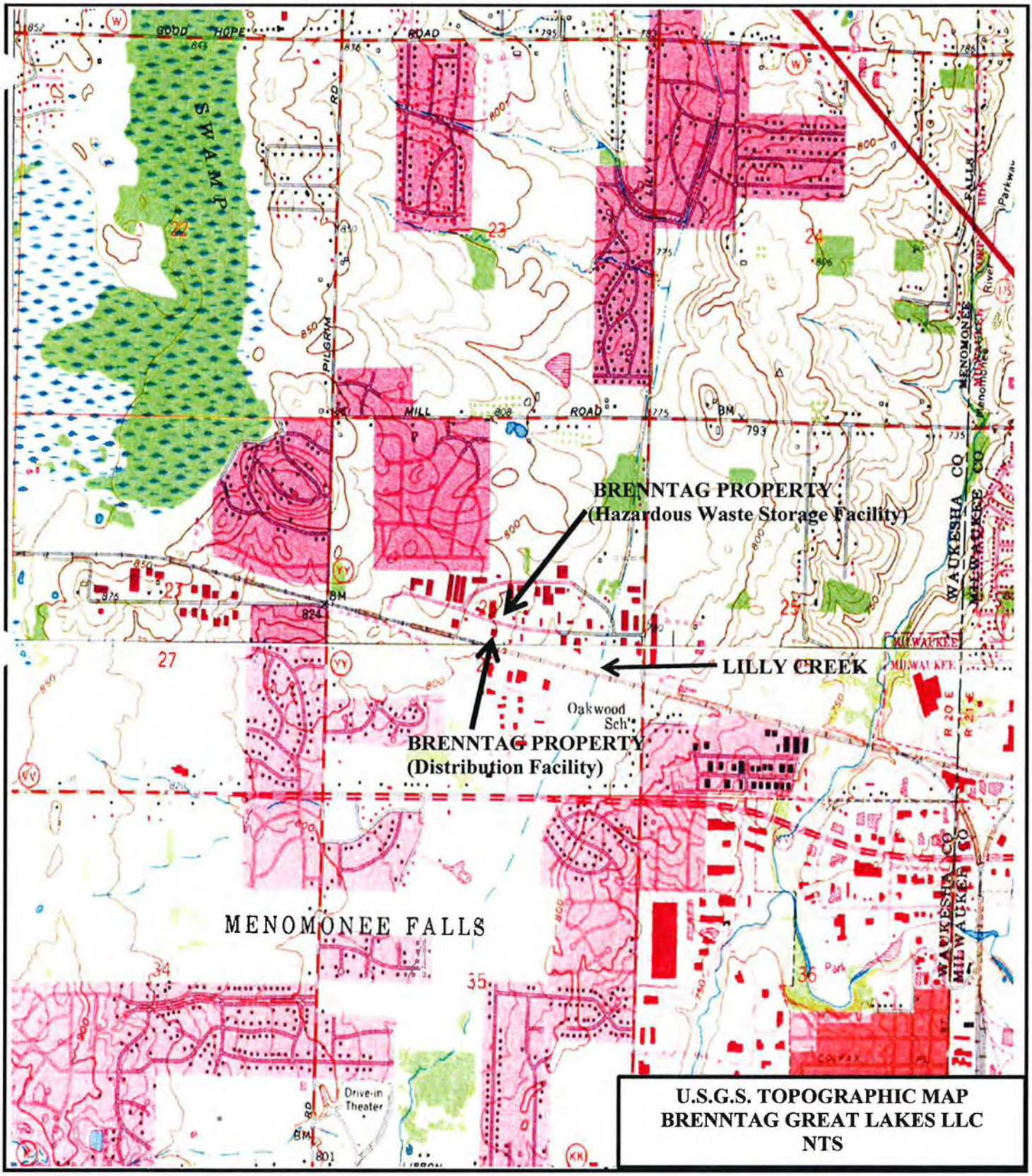
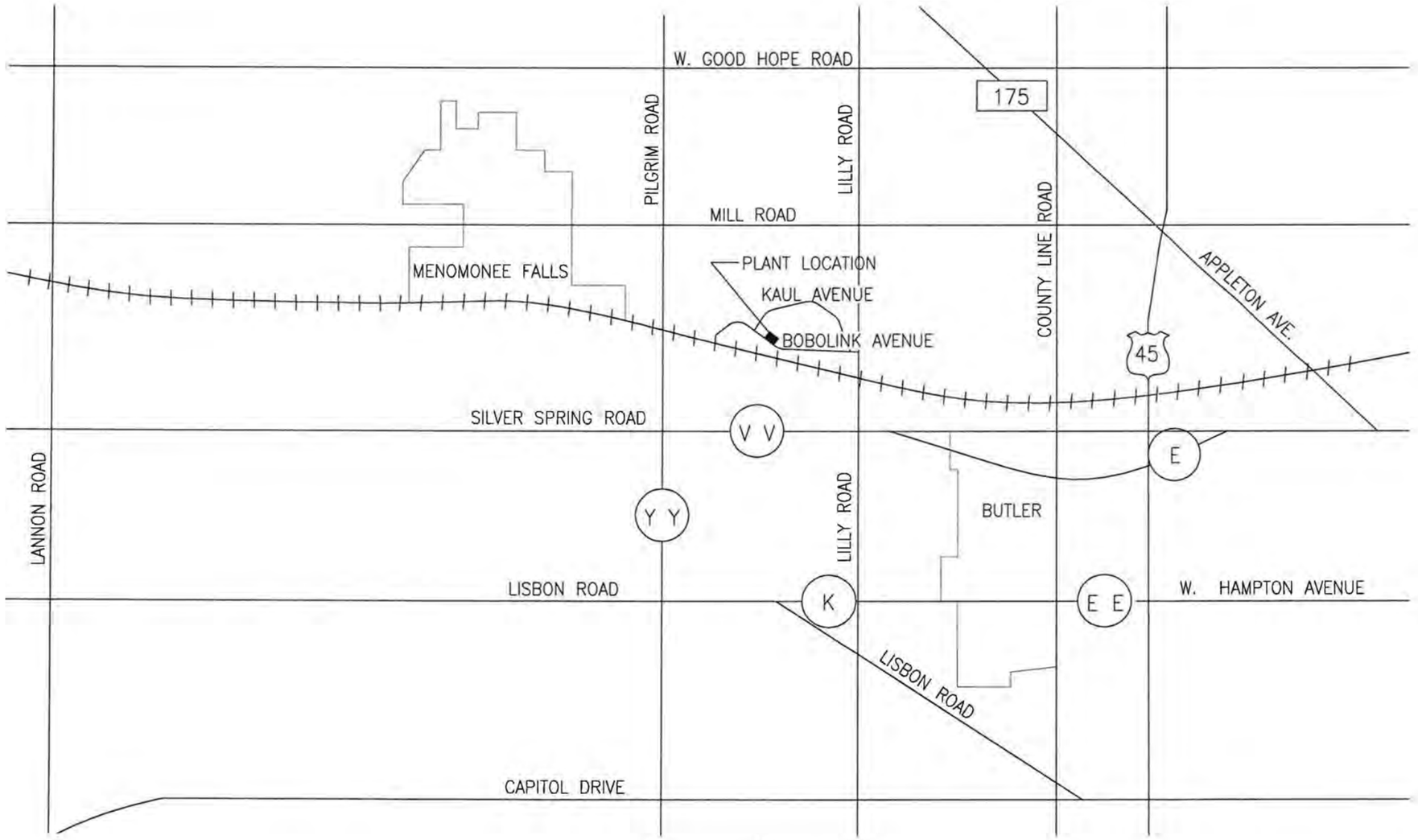

BRENNTAG PROPERTY
(Hazardous Waste Storage Facility)
LILLY CREEK
BRENNTAG PROPERTY
(Distribution Facility)
MENOMONEE FALLS
SWAMP
GOOD HOPE ROAD
MILL ROAD
PILGRIM RD
Oakwood Sch
Drive-in Theater
WAUKESHA CO
MILWAUKEE CO
U.S.G.S. TOPOGRAPHIC MAP
BRENNTAG GREAT LAKES LLC
NTS

EXHIBIT B

LOCAL STREET MAP
(Drawing No. G-7)



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SPECTRUM ENGINEERING INCORPORATED
262-783-7725
FAX 262-783-7726
18396 West Capitol Drive,
Brookfield, Wisconsin 53045

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

NO.	DATE	BY	REVISION
1	8/8/13	J.M.R.	REVISED FOR 2013 LICENSE RENEWAL & FY'04 UPDATE (SEE PROJ. NO. 12047)

DRAWN BY: H.A.F. CHECKED BY: R.B.S.
DESIGNED BY:
PROJECT MANAGER: R.B. SMITS, P.E.

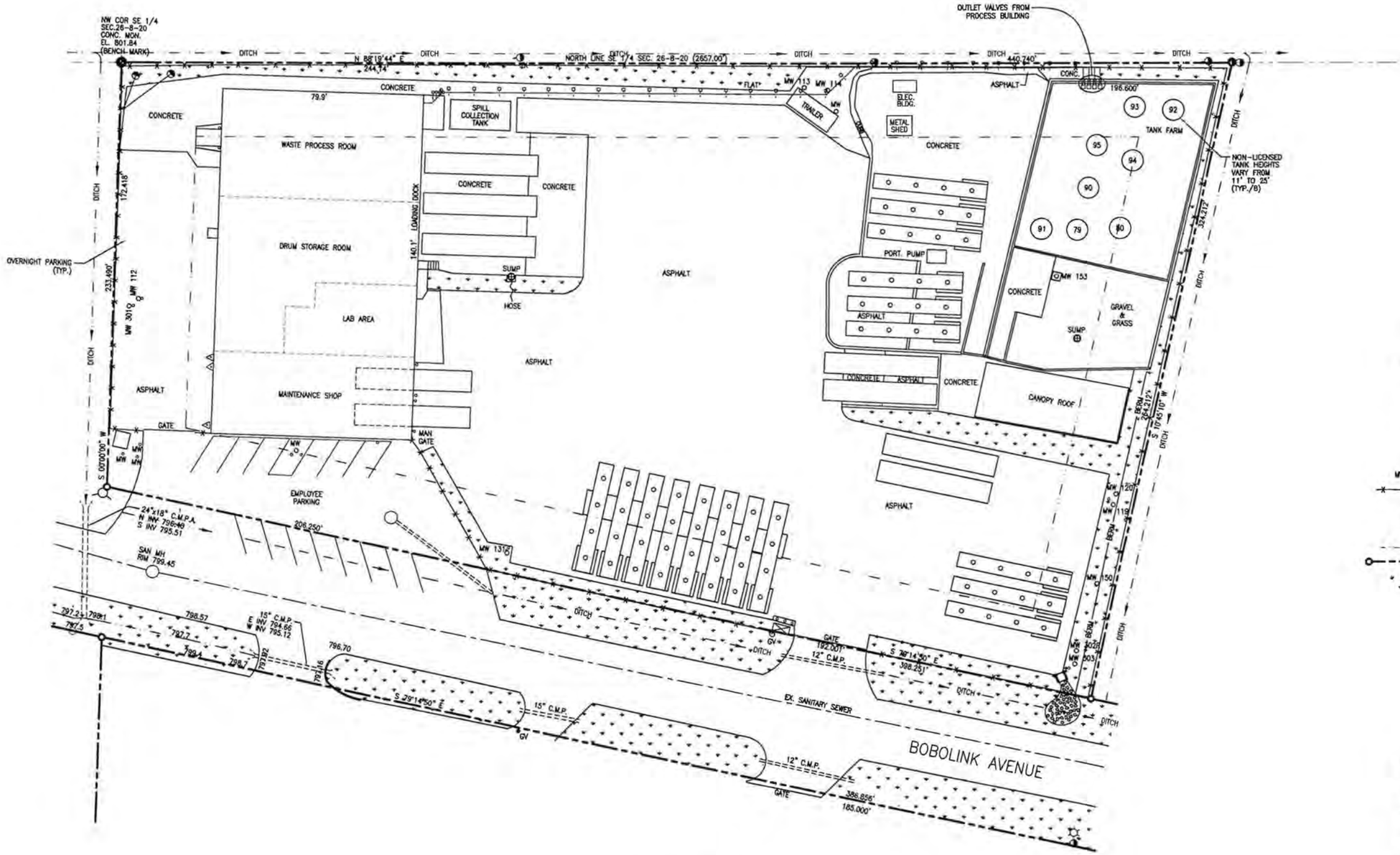
BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
LOCAL STREET MAP

DRAWING NUMBER: G-7
DATE: 1/14/00
PROJECT NUMBER: 99076
SHEET NUMBER: 7 OF 8

EXHIBIT C

GENERAL SITE PLAN
(Drawing No. G-1)



SITE PLAN
SCALE: 1/16" = 1'-0"

LEGEND

- 804.06 = EXISTING ELEVATIONS
- = UTILITY POLE
- = FIRE HYDRANT
- = WATER VALVE
- = LIGHT POLE
- = GUARD POST
- = ELECTRIC METER
- MW 140 = MONITORING WELL
- = CHAIN LINK FENCE
- = GAS METER
- GV = GAS VALVE
- SUMP = CATCH BASIN
- = 30' BUILDING SETBACK LINE
- = PROPERTY LINE
- = GRASS AREA

NOTE:

THIS DRAWING HAS BEEN PREPARED FOR GENERAL INFORMATION PURPOSES TO SHOW THE GENERAL LOCATIONS OF HAZARDOUS WASTE EQUIPMENT AND STORAGE CONTAINERS. ALL INFORMATION REGARDING PROPERTY LINES, FACILITY BUILDINGS, AND ROADS HAVE BEEN TRACED FROM SURVEYING PROVIDED BY JAHNKE & JAHNKE ASSOCIATES, INC. (JOB NO. S-4969 DATED 5/22/00), AND (JOB NO. 57745 DATED 6/18/2009), AND SPECTRUM ENGINEERING HAS NOT VERIFIED NOR PROVIDES ANY WARRANTY REGARDING THE COMPLETENESS AND ACCURACY OF SUCH INFORMATION. PLEASE ALSO NOTE THAT LOCATION OF ALL UTILITIES (ABOVE AND BELOW GROUND) ARE NOT SHOWN ON THIS DRAWING AND MUST BE VERIFIED BY CONTRACTOR/OWNER PRIOR TO CONDUCTING WORK.

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NO.	DATE	BY	REVISION
1	8/6/13	J.M.N.	REVISED FOR 2013 LICENSE RENEWAL & FTOR UPDATE (SEI PROJ. NO. 12047)

DRAWN BY: S.A.M.	CHECKED BY: R.B.S./T.M.
DESIGNED BY: J.M. NOLL, P.E.	
PROJECT MANAGER: R.B. SMITH, P.E.	

BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

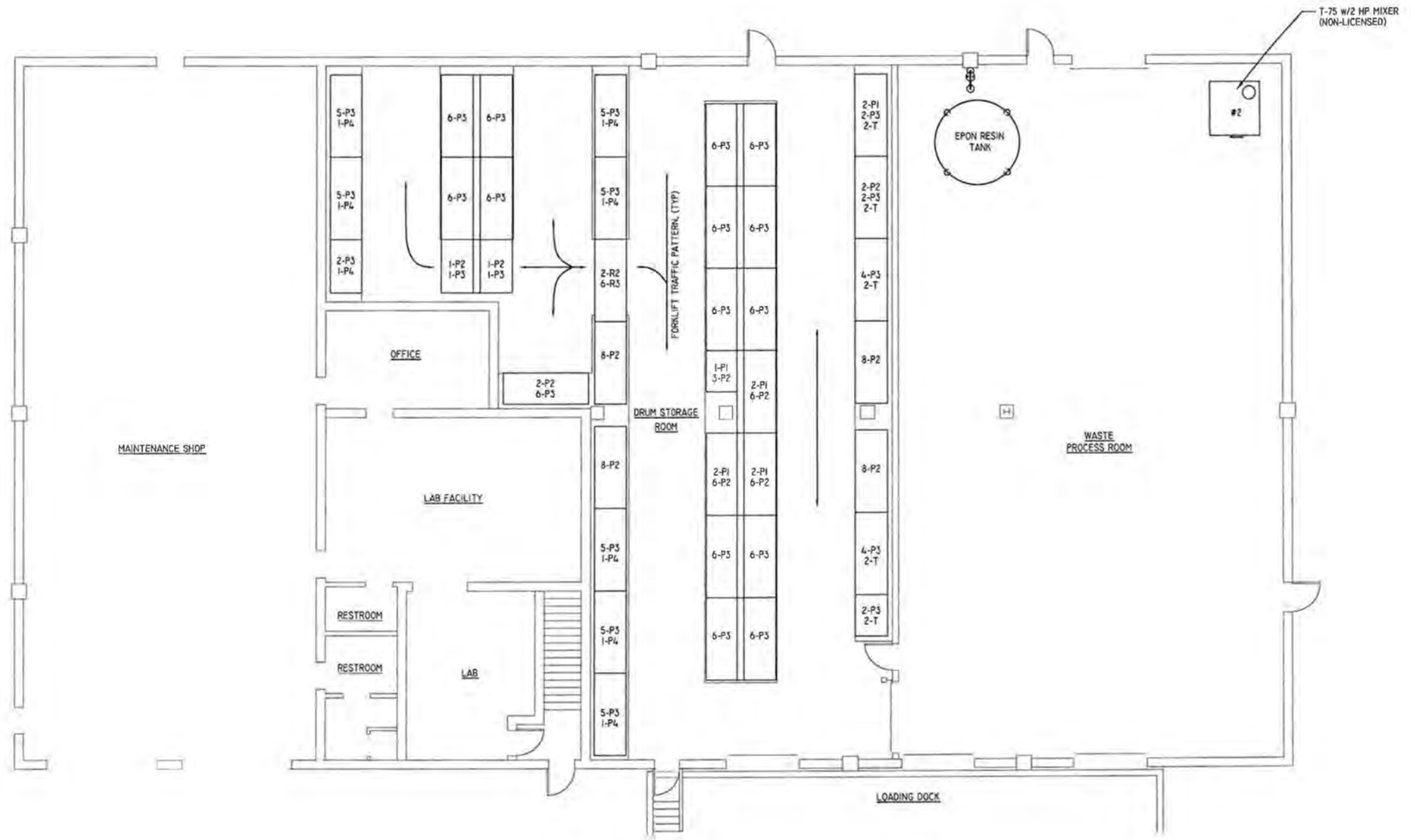
HAZARDOUS WASTE STORAGE FACILITY
GENERAL SITE PLAN

DRAWING NUMBER:	G-1
DATE:	1/14/00
PROJECT NUMBER:	99676
SHEET NUMBER:	1 OF 8

EXHIBIT D

DRUM STORAGE AND PROCESSING BUILDING

(Drawing No. G-5)



PLAN VIEW
SCALE: 3/16" = 1'-0"

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FAX 262-783-7728
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

NO.	DATE	BY	REVISION
1	6/6/13	J.M.K.	REVISED FOR 2013 LICENSE RENEWAL & FPOR UPDATE (SEI PROJ. NO. 12047)

DRAWN BY: S.A.M.	CHECKED BY: R.B.S./P.M.
DESIGNED BY: J.M. NOLL, P.E.	
PROJECT MANAGER: R.B. SMITS, P.E.	

BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
DRUM STORAGE AND PROCESSING BUILDING
PROCESS EQUIPMENT AND RACK LAYOUT

DRAWING NUMBER:	G-5
DATE:	1/14/00
PROJECT NUMBER:	99676
SHEET NUMBER:	5 OF 8

EXHIBIT E

CURRENTLY ACCEPTED WASTE CODES

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION	SIC CODE
D001	Flammable	NA
D004	Arsenic	7440–38–2
D005	Barium	7440–39–3
D006	Cadmium	7440–43–9
D007	Chromium	7440–47–3
D008	Lead	7439–92–1
D009	Mercury	7439–97–6
D010	Selenium	7782–49–2
D011	Silver	7440–22–4
D012	Endrin	0072–20–8
D013	Lindane	0058–89–9
D014	Methoxychlor	0072–43–5
D015	Toxaphene	8001–35–2
D016	2,4–D	0094–75–7
D017	2,4,5–TP (Silvex)	0093–72–1
D018	Benzene	0071–43–2
D019	Carbon tetrachloride	0056–23–5
D020	Chlordane	0057-74-9
D021	Chlorobenzene	0108–90–7
D022	Chloroform	0067–66–3
D023	o–Cresol	0095–48–7
D024	m–Cresol	0108–39–4
D025	p–Cresol	0106–44–5
D026	Cresol	
D027	1,4–Dichlorobenzene	0106–46–7
D028	1,2–Dichloroethane	0107–06–2
D029	1,1–Dichloroethylene	0075–35–4
D030	2,4–Dinitrotoluene	0121–14–2
D031	Heptachlor (and its epoxide)	0076–44–8
D032	Hexachlorobenzene	0118–74–1
D033	Hexachlorobutadiene	0087–68–3
D034	Hexachloroethane	0067–72–1
D035	Methyl ethyl ketone	0078–93–3
D036	Nitrobenzene	0098–95–3

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION	SIC CODE
D037	Pentachlorophenol	0087–86–5
D038	Pyridine	0110–86–1
D039	Tetrachloroethylene	0127–18–4
D040	Trichloroethylene	0079–01–6
D041	2,4,5–Trichlorophenol	0095–95–4
D042	2,4,6–Trichlorophenol	0088–06–2
D043	Vinyl chloride	0075–01–4

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride,1,1,1–trich-loroethane, carbon tetrachloride, and chlorinated fluorocarbons; all mixtures and blends of spent solvents used in degreasing contain-ing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1–trichloroethane,chloro-benzene, 1,1,2–trichloro–1,2,2–trifluoroethane, ortho–dichlorobenzene, trichlorofluoromethane and 1,1,2–trichloroethane; all mix-tures and blends of spent solvents containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those listed in F001, F004or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F003	The following spent non–halogenated solvents: xylene, acetone, ethylacetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n–bu-tylalcohol, cyclohexanone and methanol; all mixtures and blends of spent solvents containing, before use, only the above spent non–halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non–halogenated solvents and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002,F004 and F005;and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F004	The following spent non–halogenated solvents: cresols, cresylic acid, and nitrobenzene; all mixtures and blends of spent solvents con-taining, before use, a total of 10% or more, by volume, of one or more of the above non–halogenated solvents or those solvents listed in F001, F002 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F005	The following spent non–halogenated solvents: toluene, methylethylketone, carbon disulfide, isobutanol, pyridine, benzene,2–ethox-yethanol and 2–nitropropane; all mixtures and blends of spent solvents containing, before use, a total of 10% or more, by volume, of one or more of the above non–halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
F006	Wastewater treatment sludges from electroplating operations, except from the following processes: (1) sulfuric acid an odizing of alu-minum; (2) tin plating on carbon steel; (3) zinc plating, segregated basis, on carbon steel; (4) aluminum or zinc–aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
	Note: Electroplating operations are considered to include common and precious metals electroplating, anodizing, chemical etching and milling, and cleaning and stripping when associated with these processes.
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars and reactor clean–out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radicalcatalyzed processes. These chlorinated aliphatic hydrocarbons are those hav-ing carbon chain lengths ranging from one to 5, with varying amounts and positions of chlorine substitution. This listing does not in-clude wastewaters,wastewater treatment sludges, spent catalysts and wastes listed in sub. (2) (a) or (b).
F025	Condensed light ends, spent filters and filter aids and spent desiccant wastes from the production of certain chlorinated aliphatic hydro-carbons, by free radical catalyzed processes. These chlorinated aliphatichydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophe-nol.
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chro-mium. This listing does not include K001 bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophenol.
F037	Petroleum refinery primary oil or water or solids separation sludge–Any sludge generated from the gravitational separation of oil or water or solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil or water or solids separators; tanks and impoundments; ditches and other conveyances; sumps and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non–contact once–through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated inaggressive biological treatment units as defined in s. NR 605.15 (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.
F038	Petroleum refinery secondary (emulsified) oil or water or solids separation sludge–Any sludge or float generated from the physical or chemical separation of oil or water or solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non–contact once–through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats gener-ated in aggressive biological treatment units as defined in s. NR 605.15 (including sludges and floats generated in one or more addition-al units after wastewaters have been treated inaggressive biological treatment units) and F037, K048 and K051 wastes are not included in this listing.
F039	Leachate (liquids that have percolated through and disposed wastes) resulting from the disposal of more than one restricted waste clas-sified by more than one waste code under s. NR 605.09, or from a mixture of wastes classified as hazardous under s. NR 605.09. Lea-chate resulting from the disposal of one or more of the following hazardous wastes and no other hazardous wastes retains its hazardous wastes code(s): F020, F021, F022, F026, F027 or F028.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote or pentachlorophe-nol. Inorganic Pigments
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated.
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K009	Distillation bottoms from the production of acetaldehyde from ethylene.
K010	Distillation side cuts from the production of acetaldehyde from ethylene.
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.
K017	Heavy ends or still bottoms from the purification column in the production of epichlorohydrin.
K018	Heavy ends from the fractionation column in ethyl chloride production.
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.
K022	Distillation bottom tars from the production of phenol or acetone from cumene.
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.
K026	Stripping still tails from the production of methyl ethyl pyridines.
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1–trichloroethane.
K029	Waste from the product stream stripper in the production of 1,1,1–trichloroethane.
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.
K031	By–product salts generated in the production of MSMA and cacodylic acid.
K032	Wastewater treatment sludge from the production of chlordane.
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.
K035	Wastewater treatment sludges generated in the production of creosote.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.
K037	Wastewater treatment sludges from the production of disulfoton.
K038	Wastewater from the washing and stripping of phorate production.
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.
K040	Wastewater treatment sludge from the production of phorate.
K041	Wastewater treatment sludge from the production of toxaphene.
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5–T.
K043	2,6–Dichlorophenol waste from the production of 2,4–D.
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.
K049	Slop oil emulsion solids from the petroleum refining industry.
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.
K051	American Petroleum Institute (API) separator sludge from the petroleum refining industry.
K052	Tank bottoms, leaded, from the petroleum refining industry.
K060	Ammonia still lime sludge from coking operations.
K061	Emission control dust or sludge from the electric furnace primary production of steel.
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.
K069	Emission control dust or sludge from secondary lead smelting. This listing does not include sludge generated from secondary acid scrubber systems.
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo–arsenic compounds.
K085	Distillation or fractionating column bottoms from the production of chlorobenzenes.
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.
K087	Decanter tank tar sludge from coking operations.
K088	Spent potliners from primary aluminum reduction.
K090	Emission control dust or sludge from ferrochromiumsilicon production.
K093	Distillation light ends from the production of phthalic anhydride from ortho–xylene.
K094	Distillation bottoms from the production of phthalic anhydride from ortho–xylene.
K095	Distillation bottoms from the production of 1,1,1–trichloroethane.
K096	Heavy ends from the heavy ends column from the production of 1,1,1–trichloroethane.
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.
K098	Untreated process wastewater from the production of toxaphene.

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K099	Untreated wastewater from the production of 2,4–D.
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting.
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo–arsenic compounds.
K103	Process residues from aniline extraction from the production of aniline.
K104	Combined wastewater streams generated from nitrobenzene/aniline production.
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.
K109	Spent filter cartridges from product purification from the production of 1,1–dimethylhydrazine (UDMH) from carboxylic acid hydrazides.
K110	Condensed column overheads from intermediate separation from the production of 1,1–dimethylhydrazine (UDMH) from car-boxylic acidhydrazides.
K112	Reaction by–product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenedia-mine.
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.
K123	Process wastewater, including supernates, filtrates and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt.
K125	Filtration, evaporation and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithio-carbamic acid and its salts.
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by–products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by–products produced from coal.
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters and wash oil recovery units from the recovery of coke by–products produced from coal.
WASTE	

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	DESCRIPTION
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by–products produced from coal.
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by–products produced from coal.
K147	Tar storage tank residues from coal tar refining.
K148	Residues from coal tar distillation, including but not limited to, still bottoms.
K149	Distillation bottoms from the production of alpha– (or methyl–)chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes asso-ciated with the production of alpha– (or methyl–) chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and com-pounds with mixtures of these functional groups.
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha– (or methyl–) chlorinated toluenes, ring–chlorinated toluenes, benzoyl chlorides and compounds with mixtures of these functional groups.
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carba-mates and carbamoyl oximes.
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes.
K159	Organics from the treatment of thiocarbamate wastes.
K160	Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.

WASTE CODE	SIC CODE	DESCRIPTION
U001	00075–07–0	Acetaldehyde (I) (Ethanal (I))
U002	00067–64–1	Acetone (I) (2–Propanone (I))
U003	00075–05–8	Acetonitrile (I,T)
U004	00098–86–2	Acetophenone (Ethanone, 1–phenyl–)
U005	00053–96–3	Acetamide, N–9H–fluoren–2–yl– (2–Acetylaminofluorene)
U009	00107–13–1	Acrylonitrile (2–Propenenitrile)
U010	00050–07–7	Azirino[2',3':3,4]pyrrolo[1,2–a]indole–4,7–dione6–amino–8–[[(aminocarbonyl)oxy]methyl]–1,1a,2,8,8a,8b–hexahy-dro– 8a–methoxy–5–methyl–, [1aS–(1aalpha, 8beta,8aalpha,8balpha)]– (Mitomycin C)
U011	00061–82–5	Amitrole (1H–1,2,4–Triazol–3–amine)
U012	00062–53–3	Aniline (I,T) (Benzenamine (I,T))
U014	00492–80–8	Auramine (Benzenamine, 4,4'–carbonimidoylbis[N,N–dimethyl–)
U015	00115–02–6	Azaserine (L–Serine, diazoacetate (ester))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U016	00225-51-4	Benz[c]acridine
U017	00098-87-3	Benzal chloride (Benzene, (dichloromethyl)-)
U018	00056-55-3	Benz[a]anthracene
U019	00071-43-2	Benzene (I,T)
U021	00092-87-5	Benzidine ([1,1'-Biphenyl]-4,4'-diamine)
U022	00050-32-8	Benzo[a]pyrene
U024	00111-91-1	Dichloromethoxy ethane (Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-)
U025	00111-44-4	Dichloroethyl ether (Ethane, 1,1'-oxybis[2-chloro-)
U026	00494-03-1	Chlornaphazin (Naphthalenamine, N,N'-bis(2-chloroethyl)-)
U027	00108-60-1	Dichloroisopropyl ether (Propane, 2,2'-oxybis[2-chloro-)
U029	00074-83-9	Methane, bromo- (Methyl bromide)
U030	00101-55-3	Benzene, 1-bromo-4-phenoxy- (4-Bromophenyl phenyl ether)
U031	00071-36-3	1-Butanol (I) (n-Butyl alcohol (I))
U034	00075-87-6	Acetaldehyde, trichloro- (Chloral)
U036	00057-74-9	Chlordane, alpha & gamma isomers (4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-)
U037	00108-90-7	Benzene, chloro- (Chlorobenzene)
U039	00059-50-7	p-Chloro-m-cresol (Phenol, 4-chloro-3-methyl-)
U041	00106-89-8	Epichlorohydrin (Oxirane, (chloromethyl)-)
U042	00110-75-8	2-Chloroethyl vinyl ether (Ethene, (2-chloroethoxy)-)
U043	00075-01-4	Ethene, chloro- (Vinyl chloride)
U044	00067-66-3	Chloroform (Methane, trichloro-)
U045	00074-87-3	Methane, chloro- (I, T) (Methyl chloride (I,T))
U046	00107-30-2	Chloromethyl methyl ether (Methane, chloromethoxy-)
U047	00091-58-7	beta-Chloronaphthalene (Naphthalene, 2-chloro-)
U048	00095-57-8	o-Chlorophenol (Phenol, 2-chloro-)
U049	03165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride (4-Chloro-o-toluidine, hydrochloride)
U051		Creosote
U053	04170-30-3	2-Butenal (Crotonaldehyde)
U055	00098-82-8	Benzene, (1-methylethyl)- (I) (Cumene (I))
U056	00110-82-7	Benzene, hexahydro- (I) (Cyclohexane (I))
U057	00108-94-1	Cyclohexanone (I)
U058	00050-18-0	Cyclophosphamide (2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide)
WASTE	SIC	

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	CODE	DESCRIPTION
U059	20830–81–3	Daunomycin (5,12–Naphthacenedione,8–acetyl–10–[(3–amino–2,3,6–trideoxy)–alpha–L–lyxo–hexopyranosyl)oxy]–7,8,9,10–tetrahy -dro– 6,8,11–trihydroxy–1–methoxy–, (8S–cis)–)
U063	00053–70–3	Dibenz[a,h]anthracene
U064	00189–55–9	Benzo[rst]pentaphene (Dibenzo[a,i]pyrene)
U066	00096–12–8	1,2–Dibromo–3–chloropropane (Propane, 1,2–dibromo–3–chloro–)
U067	00106–93–4	Ethane, 1,2–dibromo– (Ethylene dibromide)
U068	00074–95–3	Methane, dibromo– (Methylene bromide)
U070	00095–50–1	Benzene, 1,2–dichloro– (o–Dichlorobenzene)
U071	00541–73–1	Benzene, 1,3–dichloro– (m–Dichlorobenzene)
U072	00106–46–7	Benzene, 1,4–dichloro– (p–Dichlorobenzene)
U073	00091–94–1	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dichloro– (3,3'–Dichlorobenzidine)
U074	00764–41–0	2–Butene, 1,4–dichloro– (I,T) (1,4–Dichloro–2–butene (I,T))
U075	00075–71–8	Dichlorodifluoromethane (Methane, dichlorodifluoro–)
U076	00075–34–3	Ethane, 1,1–dichloro– (Ethylidene dichloride)
U077	00107–06–2	Ethane, 1,2–dichloro– (Ethylene dichloride)
U078	00075–35–4	1,1–Dichloroethylene (Ethene, 1,1–dichloro–)
U079	00156–60–5	1,2–Dichloroethylene (Ethene, 1,2–dichloro–, (E)–)
U080	00075–09–2	Methane, dichloro– (Methylene chloride)
U081	00120–83–2	2,4–Dichlorophenol (Phenol, 2,4–dichloro–)
U082	00087–65–0	2,6–Dichlorophenol (Phenol, 2,6–dichloro–)
U083	00078–87–5	Propane, 1,2–dichloro– (Propylene dichloride)
U084	00542–75–6	1,3–Dichloropropene (1–Propene, 1,3–dichloro–)
U085	01464–53–5	2,2'–Bioxirane (1,2:3,4–Diepoxybutane (I,T))
U089	00056–53–1	Diethylstilbesterol (Phenol, 4,4'–(1,2–diethyl–1,2–ethenediyl)bis–, (E)–)
U090	00094–58–6	1,3–Benzodioxole, 5–propyl– (Dihydrosafrole)
U091	00119–90–4	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dimethoxy– (3,3'–Dimethoxybenzidine)
U092	00124–40–3	Dimethylamine (I) (Methanamine, N–methyl– (I))
U093	00060–11–7	Benzenamine, N,N–dimethyl–4–(phenylazo)– (p–Dimethylaminoazobenzene)
U094	00057–97–6	Benz[a]anthracene, 7,12–dimethyl– (7,12–Dimethylbenz[a]anthracene)
U095	00119–93–7	[1,1'–Biphenyl]–4,4'–diamine, 3,3'–dimethyl– (3,3'–Dimethylbenzidine)
U101	00105–67–9	2,4–Dimethylphenol (Phenol, 2,4–dimethyl–)
U103	00077–78–1	Dimethyl sulfate (Sulfuric acid, dimethyl ester)
U105	00121–14–2	Benzene, 1–methyl–2,4–dinitro– (2,4–Dinitrotoluene)
U106	00606–20–2	Benzene, 2–methyl–1,3–dinitro– (2,6–Dinitrotoluene)

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U108	00123–91–1	1,4–Diethyleneoxide (1,4–Dioxane)
U110	00142–84–7	Dipropylamine (I) (1–Propanamine, N–propyl– (I))
U111	00621–64–7	Di–n–propylnitrosamine (1–Propanamine, N–nitroso–N–propyl–)
U114	00111–54–6	Carbamodithioic acid, 1,2–ethanediylbis–, salts & esters (Ethylenebisdithiocarbamic acid, salts & esters)
U115	00075–21–8	Ethylene oxide (I,T) (Oxirane (I,T))
U116	00096–45–7	Ethylenethiourea (2–Imidazolidinethione)
U117	00060–29–7	Ethane, 1,1'–oxybis–(I) (Ethyl ether (I))
U120	00206–44–0	Fluoranthene
U121	00075–69–4	Methane, trichlorofluoro– (Trichloromonofluoromethane)
U122	00050–00–0	Formaldehyde
U124	00110–00–9	Furan (I) (Furfuran (I))
U125	00098–01–1	2–Furancarboxaldehyde (I) (Furfural (I))
U126	00765–34–4	Glycidylaldehyde (Oxiranecarboxyaldehyde)
U127	00118–74–1	Benzene, hexachloro– (Hexachlorobenzene)
U128	00087–68–3	1,3–Butadiene, 1,1,2,3,4,4–hexachloro– (Hexachlorobutadiene)
U129	00058–89–9	Cyclohexane, 1,2,3,4,5,6–hexachloro–(1alpha,2alpha,3beta,4alpha,5alpha,6beta)– (Lindane)
U130	00077–47–4	1,3–Cyclopentadiene, 1,2,3,4,5,5–hexachloro– (Hexachlorocyclopentadiene)
U131	00067–72–1	Ethane, hexachloro– (Hexachloroethane)
U132	00070–30–4	Hexachlorophene (Phenol, 2,2'–methylenebis[3,4,6–trichloro–)
U137	00193–39–5	Indeno[1,2,3–cd]pyrene
U138	00074–88–4	Methane, iodo– (Methyl iodide)
U140	00078–83–1	Isobutyl alcohol (I,T) (1–Propanol, 2–methyl– (I,T))
U141	00120–58–1	1,3–Benzodioxole, 5–(1–propenyl)– (Isosafrole)
U143	00303–34–4	2–Butenoic acid, 2–methyl–, 7–[[2,3–dihydroxy2–(1–methoxyethyl)–3–methyl–1–oxobutoxy]methyl]–2,3,5,7a–tetrahy-dro– 1H–pyrrolizin–1–yl ester,[1S–[1alpha(Z),7(2S*,3R*),7aalpha]]– (Lasiocarpine)
U146	01335–32–6	Lead, bis(acetato–O)tetrahydroxytri– (Lead subacetate)
U147	00108–31–6	2,5–Furandione (Maleic anhydride)
U148	00123–33–1	Maleic hydrazide (3,6–Pyridazinedione, 1,2–dihydro–)
U149	00109–77–3	Malononitrile (Propanedinitrile)
U150	00148–82–3	Melphalan (L–Phenylalanine, 4–[bis(2–chloroethyl)amino]–)
U151	07439–97–6	Mercury
U152	00126–98–7	Methacrylonitrile (I, T) (2–Propenenitrile, 2–methyl– (I,T))
U153	00074–93–1	Methanethiol (I, T) (Thiomethanol (I,T))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U154	00067–56–1	Methanol (I) (Methyl alcohol (I))
U155	00091–80–5	1,2–Ethanediamine, N,N–dimethyl–N'–2–pyridinyl–N'–(2–thienylmethyl)– (Methapyrilene)
U157	00056–49–5	Benz[j]aceanthrylene, 1,2–dihydro–3–methyl– (3–Methylcholanthrene)
U158	00101–14–4	Benzenamine, 4,4'–methylenebis[2–chloro– (4,4'–Methylenebis(2–chloroaniline))
U159	00078–93–3	2–Butanone (I,T) (Methyl ethyl ketone (MEK) (I,T))
U161	00108–10–1	Methyl isobutyl ketone (I) (4–Methyl–2–pentanone (I)) (Pentanol, 4–methyl–)
U163	00070–25–7	Guanidine, N–methyl–N'–nitro–N–nitroso– (MNNG)
U164	00056–04–2	Methylthiouracil (4 (1H)–Pyrimidinone, 2,3–dihydro–6–methyl–2–thioxo–)
U165	00091–20–3	Naphthalene
U166	00130–15–4	1,4–Naphthalenedione (1,4–Naphthoquinone)
U167	00134–32–7	1–Naphthalenamine (alpha–Naphthylamine)
U168	00091–59–8	2–Naphthalenamine (beta–Naphthylamine)
U169	00098–95–3	Benzene, nitro– (Nitrobenzene (I,T))
U170	00100–02–7	p–Nitrophenol (Phenol, 4–nitro–)
U171	00079–46–9	2–Nitropropane (I,T) (Propane, 2–nitro– (I,T))
U172	00924–16–3	1–Butanamine, N–butyl–N–nitroso– (N–Nitrosodi–n–butylamine)
U173	01116–54–7	Ethanol, 2,2'–(nitrosoimino)bis– (N–Nitrosodiethanolamine)
U174	00055–18–5	Ethanamine, N–ethyl–N–nitroso– (N–Nitrosodiethylamine)
U176	00759–73–9	N–Nitroso–N–ethylurea (Urea, N–ethyl–N–nitroso–)
U179	00100–75–4	N–Nitrosopiperidine (Piperidine, 1–nitroso–)
U180	00930–55–2	N–Nitrosopyrrolidine (Pyrrolidine, 1–nitroso–)
U181	00099–55–8	Benzenamine, 2–methyl–5–nitro– (5–Nitro–o–toluidine)
U182	00123–63–7	Paraldehyde (1,3,5–Trioxane, 2,4,6–trimethyl–)
U183	00608–93–5	Benzene, pentachloro– (Pentachlorobenzene)
U184	00076–01–7	Ethane, pentachloro– (Pentachloroethane)
U185	00082–68–8	Benzene, pentachloronitro– (Pentachloronitrobenzene (PCNB))
U186	00504–60–9	1–Methylbutadiene (I) (1,3–Pentadiene (I))
U187	00062–44–2	Acetamide, N–(4–ethoxyphenyl)– (Phenacetin)
U188	00108–95–2	Phenol
U191	00109–06–8	2–Picoline (Pyridine, 2–methyl–)
U192	23950–58–5	Benzamide, 3,5–dichloro–N–(1,1–dimethyl–2–propynyl)– (Pronamide)
U193	01120–71–4	1,2–Oxathiolane, 2,2–dioxide (1,3–Propane sultone)
U194	00107–10–8	1–Propanamine (I,T) (n–Propylamine (I,T))

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U196	00110–86–1	Pyridine
U197	00106–51–4	p–Benzoquinone (2,5–Cyclohexadiene–1,4–dione)
U200	00050–55–5	Reserpine (Yohimban–16–carboxylic acid,11,17–dimethoxy–18–[(3,4,5–trimethoxybenzoyl)oxy]–, methyl ester,(3beta,16beta,17al-pha, 18beta,20alpha)–)
U201	00108–46–3	1,3–Benzenediol (Resorcinol)
U202	00081–07–2	1,2–Benzisothiazol–3 (2H)–one, 1,1–dioxide, & salts (Saccharin, & salts)
U203	00094–59–7	1,3–Benzodioxole, 5–(2–propenyl)– (Safrole)
U204	07783–00–8	Selenious acid (Selenium dioxide)
U206	18883–66–4	Glucopyranose, 2–deoxy–2–(3–methyl–3–nitrosoureido)–, D– (D–Glucose, 2–deoxy–2–[[(methylnitrosoamino)– carbonyl]amino]–) (Streptozotocin)
U207	00095–94–3	Benzene, 1,2,4,5–tetrachloro– (1,2,4,5–Tetrachlorobenzene)
U208	00630–20–6	Ethane, 1,1,1,2–tetrachloro– (1,1,1,2–Tetrachloroethane)
U209	00079–34–5	Ethane, 1,1,2,2–tetrachloro– (1,1,2,2–Tetrachloroethane)
U210	00127–18–4	Ethene, tetrachloro– (Tetrachloroethylene)
U211	00056–23–5	Carbon tetrachloride (Methane, tetrachloro–)
U213	00109–99–9	Furan, tetrahydro–(I) (Tetrahydrofuran (I))
U216	07791–12–0	Thallium(I) chloride (Thallium chloride TlCl)
U217	10102–45–1	Nitric acid, thallium(1+) salt (Thallium(I) nitrate)
U218	00062–55–5	Ethanethioamide (Thioacetamide)
U220	00108–88–3	Benzene, methyl– (Toluene)
U221	25376–45–8	Benzenediamine, ar–methyl– (Toluenediamine)
U222	00636–21–5	Benzenamine, 2–methyl–, hydrochloride (o–Toluidine hydrochloride)
U225	00075–25–2	Bromoform (Methane, tribromo–)
U226	00071–55–6	Ethane, 1,1,1–trichloro– (Methyl chloroform)
U227	00079–00–5	Ethane, 1,1,2–trichloro– (1,1,2–Trichloroethane)
U228	00079–01–6	Ethene, trichloro– (Trichloroethylene)
U235	00126–72–7	1–Propanol, 2,3–dibromo–, phosphate (3:1) (Tris(2,3–dibromopropyl) phosphate)
U237	00066–75–1	2,4–(1H,3H)–Pyrimidinedione, 5–[bis(2– chloroethyl)amino]– (Uracil mustard)
U239	01330–20–7	Benzene, dimethyl– (I,T) (Xylene (I))
U240	00094–75–7	Acetic acid, (2,4–dichlorophenoxy)–, salts & esters (2,4–D, salts & esters)
U243	01888–71–7	Hexachloropropene (1–Propene, 1,1,2,3,3,3–hexachloro–)
U244	00137–26–8	Thioperoxydicarbonic diamide [(H2 N)C(S)]2 S2 , tetramethyl– (Thiram)
U247	00072–43–5	Benzene,1,1'–(2,2,2–trichloroethylidene)bis[4– methoxy– (Methoxychlor)
U248	00081–81–2	2H–1–Benzopyran–2–one, 4–hydroxy–3–(3–oxo–1–phenyl–butyl)–, & salts, when present at concentrations of 0.3% or less (Warfarin, & salts, when present at concentrations of 0.3% or less)

CURRENTLY ACCEPTED WASTE CODES

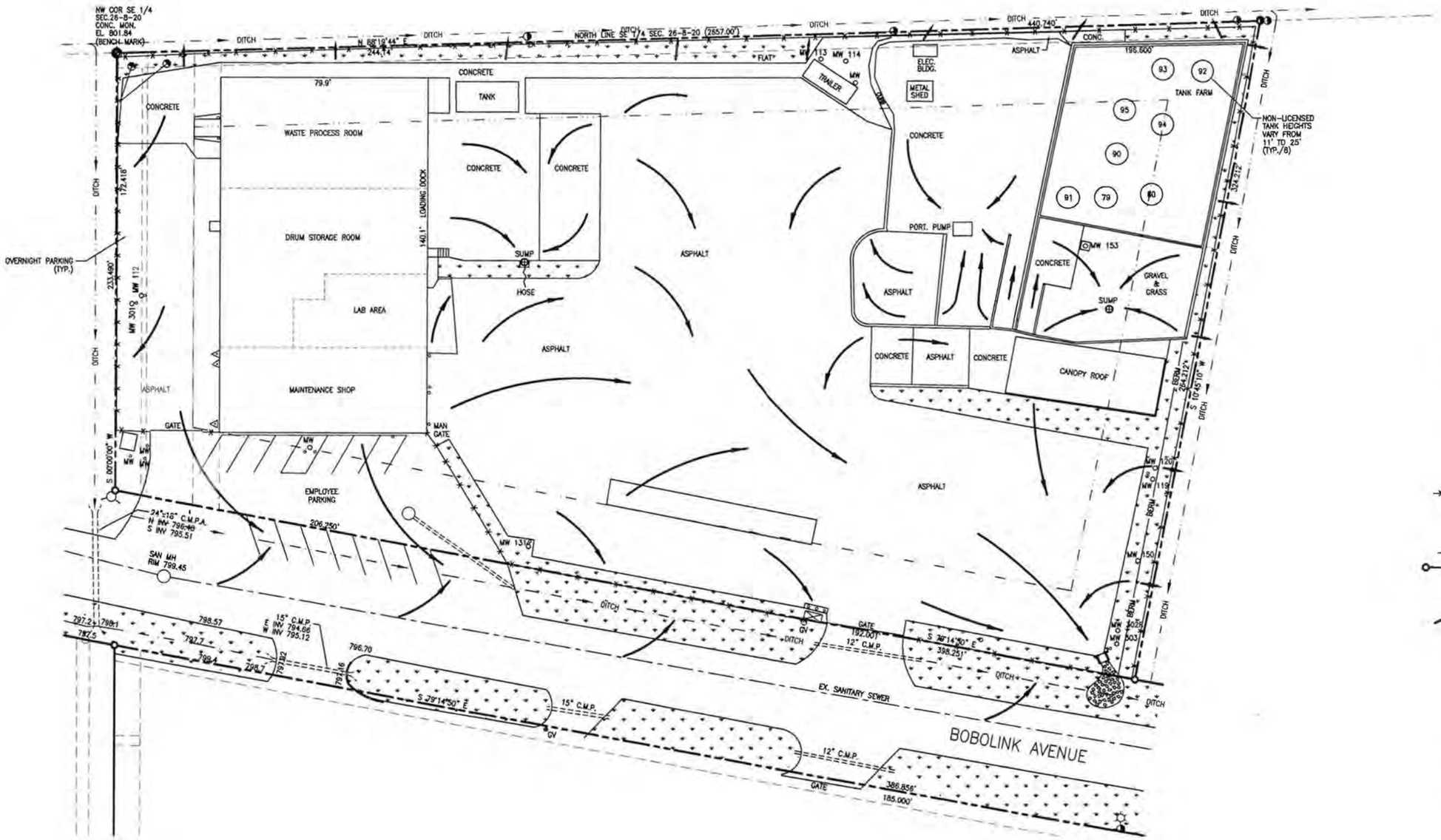
WASTE CODE	SIC CODE	DESCRIPTION
U249	01314-84-7	Zinc phosphide Zn3 P2 , when present at concentrations of 10% or less
U271	17804-35-2	Benomyl (Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester)
U277	95-06-7	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester (Sulfallate)
U278	22781-23-3	Bendiocarb (1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate)
U279	63-25-2	Carbaryl (1-Naphthalenol, methylcarbamate)
U280	101-27-9	Barban (Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester)
U328	00095-53-4	Benzenamine, 2-methyl- (o-Toluidine)
U353	00106-49-0	Benzenamine, 4-methyl- (p-Toluidine)
U359	00110-80-5	Ethanol, 2-ethoxy- (Ethylene glycol monoethyl ether)
U364	22961-82-6	Bendiocarb phenol (1,3-Benzodioxol-4-ol, 2,2-dimethyl-,)
U365	2212-67-1	H-Azepine-1-carbothioic acid, hexahydro-, S-ethyl ester (Molinate)
U366	533-74-4	Dazomet (2H-1,3,5-Thiadiazine- 2-thione, tetrahydro-3,5-dimethyl-)
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl- (Carbofuran phenol)
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester (Carbendazim)
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester (Propham)
U375	55406-53-6	Carbamic acid, butyl-, 3-iodo-2-propynyl ester (3-Iodo-2-propynyl n-butylcarbamate)
U376	144-34-3	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid (Selenium, tetrakis(dimethyldithiocarbamate))
U377	137-41-7	Carbamodithioic acid, methyl,- monopotassium salt (Potassium n-methyldithiocarbamate)
U378	51026-28-9	Carbamodithioic acid, (hydroxymethyl)methyl-, monopotassium salt (Potassium n-hydroxymethyl- n-methyldi-thiocarbamate)
U379	136-30-1	Carbamodithioic acid, dibutyl, sodium salt (Sodium dibutyldithiocarbamate)
U381	148-18-5	Carbamodithioic acid, diethyl-, sodium salt (Sodium diethyldithiocarbamate)
U382	128-04-1	Carbamodithioic acid, dimethyl-, sodium salt (Sodium dimethyldithiocarbamate)
U383	128-03-0	Carbamodithioic acid, dimethyl, potassium salt (Potassium dimethyldithiocarbamate)
U384	137-42-8	Carbamodithioic acid, methyl-, monosodium salt (Metam Sodium)
U385	1929-77-7	Carbamothioic acid, dipropyl-, S-propyl ester (Vernolate)
U386	1134-23-2	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester (Cycloate)
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester (Prosulfocarb)
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester (Triallate)
U390	759-94-4	Carbamothioic acid, dipropyl-, S-ethyl ester (EPTC)
U391	1114-71-2	Carbamothioic acid, butylethyl-, S-propyl ester (Pebulate)
U392	2008-41-5	Butylate (Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester)
U393	137-29-1	Copper, bis(dimethylcarbamodithioato-S,S')-, (Copper dimethyldithiocarbamate)

CURRENTLY ACCEPTED WASTE CODES

WASTE CODE	SIC CODE	DESCRIPTION
U394	30558-43-1	A2213 (Ethanimidothioic acid, 2–(dimethylamino)–N–hydroxy–2–oxo–, methyl ester)
U395	5952-26-1	Diethylene glycol, dicarbamate (Ethanol, 2,2'–oxybis–, dicarbamate)
U396	14484-64-1	Ferbam (Iron, tris(dimethylcarbamodithioato–S,S')–,)
U400	120-54-7	Bis(pentamethylene)thiuram tetrasulfide (Piperidine, 1,1'–(tetrathiodicarbonothioyl)–bis–)
U401	97-74-5	Bis(dimethylthiocarbamoyl) sulfide (Tetramethylthiuram monosulfide)
U402	1634-02-2	Tetrabutylthiuram disulfide (Thioperoxydicarbonic diamide, tetrabutyl)
U403	97-77-8	Disulfiram (Thioperoxydicarbonic diamide, tetraethyl)
U404	121-44-8	Ethanamine, N,N–diethyl– (Triethylamine)
U407	14324-55-1	Ethyl Ziram (Zinc, bis(diethylcarbamodithioato–S,S')–)
U409	23564-05-8	Carbamic acid, [1,2–phenylenebis (iminocarbonothioyl)]bis–, dimethyl ester (Thiophanate–methyl)
U410	59669-26-0	Ethanimidothioic acid, N,N'– [thiobis[(methylimino)carbonyloxy]]bis–, dimethyl ester (Thiodicarb)
U411	114-26-1	Phenol, 2–(1–methylethoxy)–, methylcarbamate (Propoxur)

EXHIBIT F

STORM WATER DRAINAGE MAP
(Drawing No. G-4)



SITE PLAN
SCALE: 1/16" = 1'-0"

LEGEND

- 804.06 = EXISTING ELEVATIONS
- = UTILITY POLE
- = FIRE HYDRANT
- = WATER VALVE
- = LIGHT POLE
- = GUARD POST
- = ELECTRIC METER
- MW 140 = MONITORING WELL
- = CHAIN LINK FENCE
- = GAS METER
- GV = GAS VALVE
- SUMP = CATCH BASIN
- = 30' BUILDING SETBACK LINE
- = PROPERTY LINE
- = GRASS AREA
- = DRAINAGE DIRECTION

NOTE:
THIS DRAWING HAS BEEN PREPARED FOR GENERAL INFORMATION PURPOSES TO SHOW THE GENERAL LOCATIONS OF HAZARDOUS WASTE EQUIPMENT AND STORAGE CONTAINERS. ALL INFORMATION REGARDING PROPERTY LINES, FACILITY BUILDINGS, AND ROADS HAVE BEEN TRACED FROM SURVEYING PROVIDED BY JAHNKE & JAHNKE ASSOCIATES, INC. (JOB NO. S-4989 DATED 5/22/00), AND (JOB NO. S7745 DATED 6/18/2009), AND SPECTRUM ENGINEERING HAS NOT VERIFIED NOR PROVIDES ANY WARRANTY REGARDING THE COMPLETENESS AND ACCURACY OF SUCH INFORMATION. PLEASE ALSO NOTE THAT LOCATION OF ALL UTILITIES (ABOVE AND BELOW GROUND) ARE NOT SHOWN ON THIS DRAWING AND MUST BE VERIFIED BY CONTRACTOR/OWNER PRIOR TO CONDUCTING WORK.

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SPECTRUM ENGINEERING INCORPORATED
262-783-7725
FAX 262-783-7726
19395 West Capitol Drive,
Brookfield, Wisconsin 53045

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NO.	DATE	BY	REVISION
1	8/8/13	J.M.M.	REVISED FOR 2013 LICENSE RENEWAL & FPOR UPDATE (SD PROJ. NO. 12047)

DRAWN BY:	CHECKED BY:
S.A.M.	R.B.S./P.M.
DESIGNED BY:	
J.M. MOLL, P.E.	
PROJECT MANAGER:	
R.B. SMITS, P.E.	

BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
STORM WATER DRAINAGE MAP

DRAWING NUMBER:	G-4
DATE:	1/14/00
PROJECT NUMBER:	99676
SHEET NUMBER:	4 OF 8

EXHIBIT G

DAILY INSPECTION FORM (LOGSHEET)

DAILY HAZARDOUS WASTE STORAGE & LOADING/UNLOADING PROCESS AREAS INSPECTION FORM

Inspector's Name:_____ Time:_____ Date:_____

Please inspect and describe any conditions which have, or may cause deterioration, malfunctions, employee errors, and discharges which may be causing, or may lead to, the discharge of hazardous waste or threaten human life. Indicate what repairs or actions you or other personnel have taken to correct or address the noted items.

CONTAINERS		
1. Number of recovery drums present:_____		
2. Are any containers leaking?	YES	NO
3. Are all containers in good condition?	YES	NO
4. Are all containers properly closed unless in use?	YES	NO
CONTAINER LABELING		
5. Are containers properly labeled?	YES	NO
6. Are all container labels facing outward?	YES	NO
OPERATING AND STRUCTURAL EQUIPMENT		
7. Are there any cracks in the floor?	YES	NO
8. Is the asphalt berm in good condition?	YES	NO
9. Is the dike wall in good condition?	YES	NO
10. Are the forklifts used in the hazardous waste area in good working condition?	YES	NO
SECURITY DEVICES		
11. Is the security fence in good condition?	YES	NO
12. Is the phone in the drum storage room working?	YES	NO
13. Are the names and phone numbers of the emergency coordinators, fire department, and ambulance posted next to the phone?	YES	NO
SAFETY AND EMERGENCY EQUIPMENT		
14. Is there Safety equipment present and in good condition (i.e., safety shower/eyewash, fire extinguishers)?	YES	NO
15. Are sufficient spill control materials available in the processing areas?	YES	NO
16. Are tools such as bung wrenches available to tighten loose fittings?	YES	NO

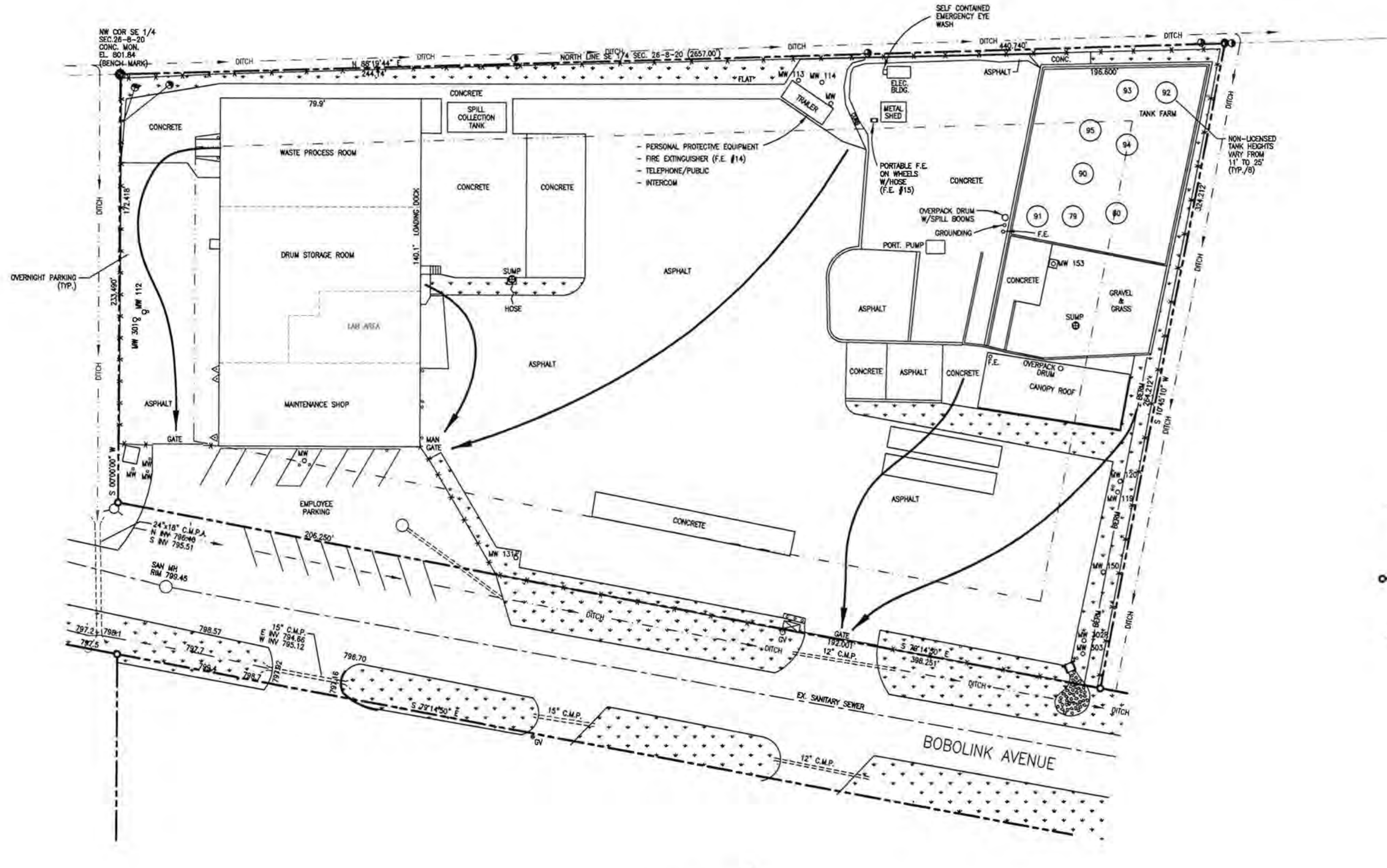
Examine the items listed above identify the types of problems (e.g., malfunctions or deterioration, inoperative equipment, leaking fittings, eroding dike, etc.) any hazards or comments, and describe these items in detail in the space provided below.

Please indicate the date and nature of repairs or remedial actions taken by you or other personnel have taken to correct or address the noted items:

EXHIBIT H

EVACUATION ROUTES AND EMERGENCY EQUIPMENT LOCATIONS

(Drawing No. G-3 and No. G-6)



SITE PLAN
SCALE: 1/16" = 1'-0"

LEGEND

- 804.06 = EXISTING ELEVATIONS
- = UTILITY POLE
- = FIRE HYDRANT
- = WATER VALVE
- = LIGHT POLE
- = GUARD POST
- = ELECTRIC METER
- MW 140 = MONITORING WELL
- = CHAIN LINK FENCE
- = GAS METER
- GV = GAS VALVE
- SUMP = CATCH BASIN
- = 30' BUILDING SETBACK LINE
- = PROPERTY LINE
- = GRASS AREA
- = EVACUATION ROUTE

NOTE:

THIS DRAWING HAS BEEN PREPARED FOR GENERAL INFORMATION PURPOSES TO SHOW THE GENERAL LOCATIONS OF HAZARDOUS WASTE EQUIPMENT AND STORAGE CONTAINERS. ALL INFORMATION REGARDING PROPERTY LINES, FACILITY BUILDINGS, AND ROADS HAVE BEEN TRACED FROM SURVEYING PROVIDED BY JAHNKE & JAHNKE ASSOCITATES, INC. (JOB NO. S-4969 DATED 5/22/00), AND (JOB NO. S7745 DATED 8/18/2009), AND SPECTRUM ENGINEERING HAS NOT VERIFIED NOR PROVIDES ANY WARRANTY REGARDING THE COMPLETENESS AND ACCURACY OF SUCH INFORMATION. PLEASE ALSO NOTE THAT LOCATION OF ALL UTILITIES (ABOVE AND BELOW GROUND) ARE NOT SHOWN ON THIS DRAWING AND MUST BE VERIFIED BY CONTRACTOR/OWNER PRIOR TO CONDUCTING WORK.

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262-783-7725
FAX 262-783-7726
19395 West Capitol Drive,
Brookfield, Wisconsin 53045

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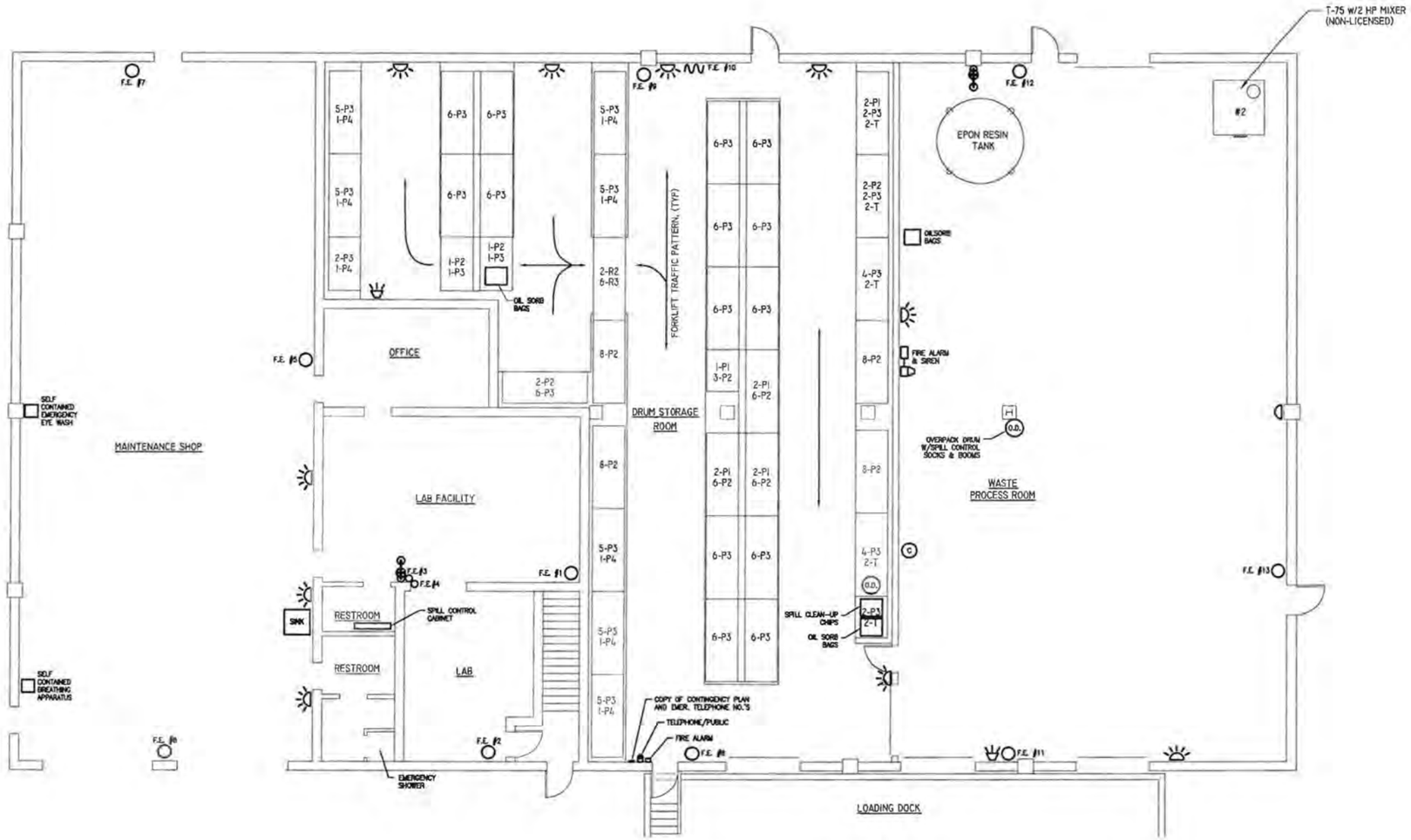
NO.	DATE	BY	REVISION
1	8/9/13	J.M.N.	REVISED FOR 2013 LICENSE RENEWAL & FPOR UPDATE (SO PROJ. NO. 12047)

DRAWN BY: S.A.M.	CHECKED BY: R.B.S./F.M.
DESIGNED BY: J.M. NOLL, P.E.	
PROJECT MANAGER: R.B. SMITS, P.E.	

BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
EVACUATION ROUTES AND
EMERGENCY EQUIPMENT LOCATIONS

DRAWING NUMBER	G-3
DATE	1/14/00
PROJECT NUMBER	99676
SHEET NUMBER	3 OF 8



PLAN VIEW
SCALE: 3/16" = 1'-0"

LEGEND

- F.E. = FIRE EXTINGUISHER
- = SAFETY SHOWER/EYE WASH STATION
- O.D. = OVERPACK DRUM
- = SAFETY MIRROR
- = EMERGENCY LIGHTING
- = FIRST AID KIT
- = INTERCOM SPEAKER/HORN
- = EMERGENCY FIRE HOSE
- C = CAMERA

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NO.	DATE	BY	REVISION
1	6/6/13	J.M.K.	REVISED FOR 2013 LICENSE RENEWAL & FPOR UPDATE (SO PROJ. NO. 12047)

DRAWN BY: S.A.M. CHECKED BY: R.B.S./P.M.
DESIGNED BY: J.M. NOLL, P.E.
PROJECT MANAGER: R.B. SMITS, P.E.

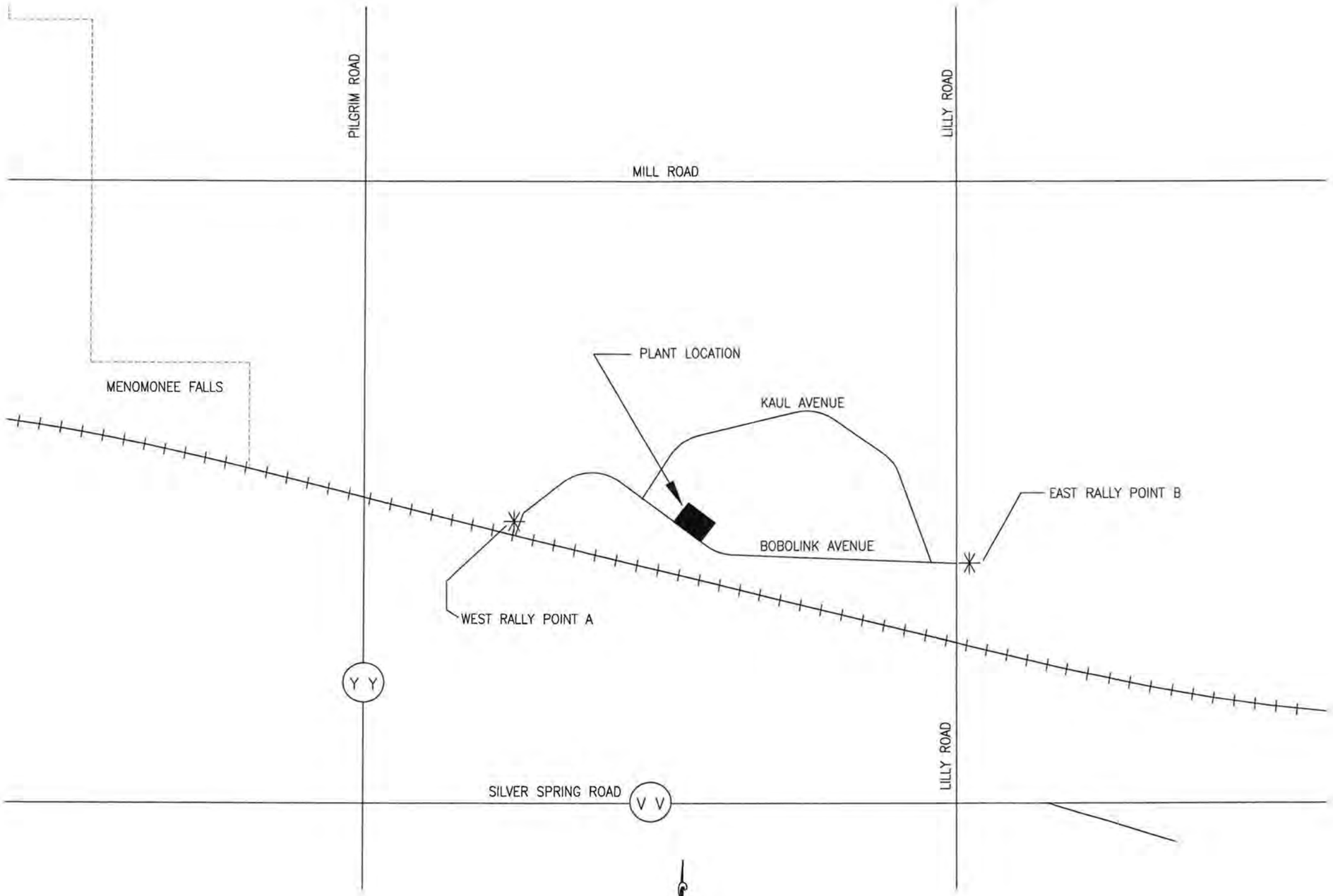
BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
DRUM STORAGE AND PROCESSING BUILDING
EMERGENCY EQUIPMENT LOCATIONS

DRAWING NUMBER: G-6
DATE: 1/14/00
PROJECT NUMBER: 99575
SHEET NUMBER: 6 OF 8

EXHIBIT I

EVACUATION RALLY POINTS
(Drawing No. G-8)



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FAX 262-783-7726
19395 West Capitol Drive,
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NO.	DATE	BY	REVISION
1	6/6/13	J.M.K.	REVISED FOR 2013 LICENSE RENEWAL & FROM UPDATE (SEI PROJ. NO. 12547)

DRAWN BY: H.A.F. CHECKED BY: R.B.S.
DESIGNED BY:
PROJECT MANAGER: R.B. SMITH, P.E.

BRENNTAG
Brenntag Great Lakes, LLC
Menomonee Falls Facility

HAZARDOUS WASTE STORAGE FACILITY
EVACUATION RALLY POINTS

DRAWING NUMBER: G-8
DATE: 1/14/00
PROJECT NUMBER: 99578
SHEET NUMBER: 8 OF 8

EXHIBIT J

INCIDENT REPORTING FORM

INCIDENT REPORT

N59 W14706 BOBOLINK AVENUE
MENOMONEE FALLS, WISCONSIN 53051

PHONE: (262) 252-3550
CONTACT: KEVIN BAGIN
OPERATIONS MANAGER

Date of Incident _____

Time of Incident _____

Type of Incident _____

Weather Conditions _____

Release Reported By _____

Location of Incident _____

Type of Material Involved _____

Estimated Quantity of Material _____

Estimated Area of Release _____

Known or Suspected Cause of Incident _____

Extent of Injuries, if Any _____

Name, Address, and EPA I.D. No. of Generator, If Applicable _____

Was There a Release to the Environment? _____

Did the Release Contaminate Any Soil? _____

Did the Release Enter the Storm or Sanitary Sewer System? _____

Was There a Release to the Air? _____

Action Taken to Investigate/ Correct/Control Incident _____

Description of Clean-Up Procedures _____

INCIDENT REPORT

N59 W14706 BOBOLINK AVENUE
MENOMONEE FALLS, WISCONSIN 53051

PHONE: (262) 252-3550
CONTACT: KEVIN BAGIN
OPERATIONS MANAGER

Agencies Contacted:

Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	
Agency		Telephone	
Name of Contact		Time	

Actions Recommended to Prevent Future Releases:

What Amendments are Needed to the Contingency Plan?

Signed _____ Date _____

EXHIBIT K

FIRE EXTINGUISHER LIST
&
SPRINKLER SYSTEM DRAWINGS

Location : 00F36 CINTAS FIRE PROTECTION
Route . : 28 OPEN OPEN
Contract : 6146
BRENNTAG GREAT LAKES, LLC
BOX 444
BUTLER, WI 53007
Phone: 262-252-3550

Customer : 6147
BRENNTAG GREAT LAKES
4420 N HARLEY DAVIDSON AV
**
WAUWATOSA, WI 53225
Phone: 262-252-6246

Work Order Number:
Work Order Date :
Service Visit :
For Month . . . :

Contacts:
ACCTS PAYABLE 262-252-6274
MIKE SCHICK 262-252-6246

Key Account : Y

Customer Notes:
CUSTOMER DAVE BECKER REQUESTED SERVICE BY LARRY BAUER ONLY RT#22 7/13/2012 LP

COD . . . . . : N	Separate Dept Invoice . : N		30 Days Past Due :		.00
Call First . : N	Will Call . . . . . : N		60 Days Past Due :		.00
PO Needed . . : N	Combined tax Rate . . . :	.056000	90 Days Past Due :		.00
Contract . . : N	Refusal Status . . . . :		120 Days Past Due :		.00
Tied to Alarm : N	Swap Out Extinguisher . : Y		CPL . . . . . :	1	
Call to Sched : Y			Discount . . . . :	.00	

Category	Freq	Month	Count
PORT EXTINGUISHER AND FIRE HOSE	A	8	65

Survey Items

Category	Item	Location	Mfg	Date	LXD	LXT	Next Exchange
PORT EXTINGUISHER AND FIRE HOSE							
	10 10ABC	1-SE OFFICE @ CAFE	AMEREX	2005	2011	H	2017
	20 10ABC	2-S END HALLWAY	BADGER	2004	2010	H	2016
	25 9CGRD	2A-HALL BY SERVER RM	ANSUL	2010	2010	H	2016
	30 10ABC	3-ACCOUNTING	BADGER	2005	2011	H	2017
	40 10ABC	4-LOBBY	AMEREX	2005	2011	H	2017
	50 10ABC	5-S HALL	AMEREX	2005	2011	H	2017
	60 10ABC	6-**WAREHOUSE**	BADGER	2004	2010	H	2016
	70 10ABC	7-OH DOOR 2	AMEREX	2005	2011	H	2017
	80 10ABC	8-OH DOOR 6	BADGER	2004	2010	H	2016
	90 10ABC	9-OH DOOR 10	BADGER	2004	2010	H	2016
	100 10ABC	10-SW EXIT	BADGER	2004	2010	H	2016
	110 10ABC	11-W RACK	BADGER	1998	2011	H	2017
	111 10ABC	11A-W/WALL	BADGER	2004	2010	H	2016
	120 10ABC	12-W RACK	BADGER	2004	2010	H	2016
	130 10ABC	13-MIDDLE ACK	BADGER	2005	2011	H	2017
	140 10ABC	14-MIDDLE RACK	AMEREX	2004	2010	H	2016
	150 10ABC	15-E RACK	AMEREX	1998	2011	H	2017
	160 10ABC	16-E WALL CTR	BADGER	2004	2010	H	2016
	170 10ABC	17-E RACK	BADGER	1998	2010	H	2016
	180 10ABC	18-E RACK	BADGER	1998	2010	H	2016

Date : 8/14/12
Time : 9:55:16

Cintas Corporation
Customer Service Sheet

Location : 00F36 CINTAS FIRE PROTECTION
Route . : 28 OPEN OPEN
Contract : 6146
BRENNTAG GREAT LAKES, LLC
PO BOX 444
BUTLER, WI 53007

Phone: 262-252-3550

Customer : 6147
BRENNTAG GREAT LAKES
4420 N HARLEY DAVIDSON AV
**
WAUWATOSA, WI 53225
Phone: 262-252-6246

Work Order Number:
Work Order Date :
Service Visit :
For Month . . . :

Survey Items

Category	Item	Location	Mfg	Date	LXD	LXT	Next Exchange
PORT	EXTINGUISHER AND FIRE HOSE						
	190 10ABC	19-RACK MIDDLE	BADGER	2004	2010	H	2016
	200 10ABC	20-W RACK	AMEREX	2004	2010	H	2016
	201 10ABC	20A-W/WALL	BADGER	2004	2010	H	2016
	210 10ABC	21-NW WALL	AMEREX	2006	2010	H	2016
	211 10ABC	21A-WARMING ROOM	BADGER	1998	2010	H	2016
	220 10ABC	21B-WARMING ROOM	BADGER	2002	2010	H	2016
	221 10ABC	22-N/W WALL	BADGER	1998	2010	H	2016
	230 10ABC	23-N WALL CTR	BADGER	1998	2010	H	2016
	240 10ABC	24-N WALL W	BADGER	1998	2010	H	2016
	250 10ABC	25-N WALL W	BADGER	1998	2010	H	2016
	260 10ABC	26-**NORTH WAREHOUSE**	BADGER	1998	2010	H	2016
	270 10ABC	27-SE WALL	BADGER	1998	2010	H	2016
	280 10ABC	28-S WALL CTR	BADGER	1998	2010	H	2016
	290 10ABC	29-S WALL W	AMEREX	2010	2010	H	2016
	300 10ABC	30-W WALL	BADGER	1998	2011	H	2017
	310 10ABC	31-NW EXIT	ANSUL	1998	2010	H	2016
	320 10ABC	32-N EXIT	AMEREX	2010	2010	H	2016
	330 10ABC	33-CTR AISLE RACK W	ANSUL	1998	2010	H	2016
	340 10ABC	34-CTR AISLE RACK CTR	ANSUL	1998	2010	H	2016
	350 10ABC	35-CTR AISLE RACK E	BADGER	2006	2012	H	2018
	360 10ABC	36-NE WALL	BADGER	1998	2010	H	2016
	370 10ABC	37-NE WALL PUMP RM E	ANSUL	1998	2010	H	2016
	480 10ABC	SPARE 37A- NE WALL PUMP RM W	AMEREX	2012	2012	H	2018
	490 10ABC	SPARE	AMEREX	2012	2012	H	2018
	495 10ABC	SPARE	AMEREX	2012	2012	H	2018
	500 5ABC	53-SHIPPING & REC CAGE	AMEREX	2010	2010	H	2016
	510 10ABC	38- W WHSE- NE OH	AMEREX	2011	2011	H	2017
	520 2ABC	FORK LIFT	AMEREX	2008	2008	H	2014
	530 2ABC	FORK LIFT	AMEREX	2010	2010	H	2016
	540 2ABC	FORK LIFT	AMEREX	2012	2012	H	2018
	550 2ABC	FORK LIFT	AMEREX	2012	2012	H	2018

Date : 8/14/12 Cintas Corporation Page : 3
Time : 9:55:16 Customer Service Sheet Report ID: CU147R

Location : 00F36 CINTAS FIRE PROTECTION
Route . : 28 OPEN OPEN
Contract : 6146
BRENNTAG GREAT LAKES, LLC
PO BOX 444
BUTLER, WI 53007

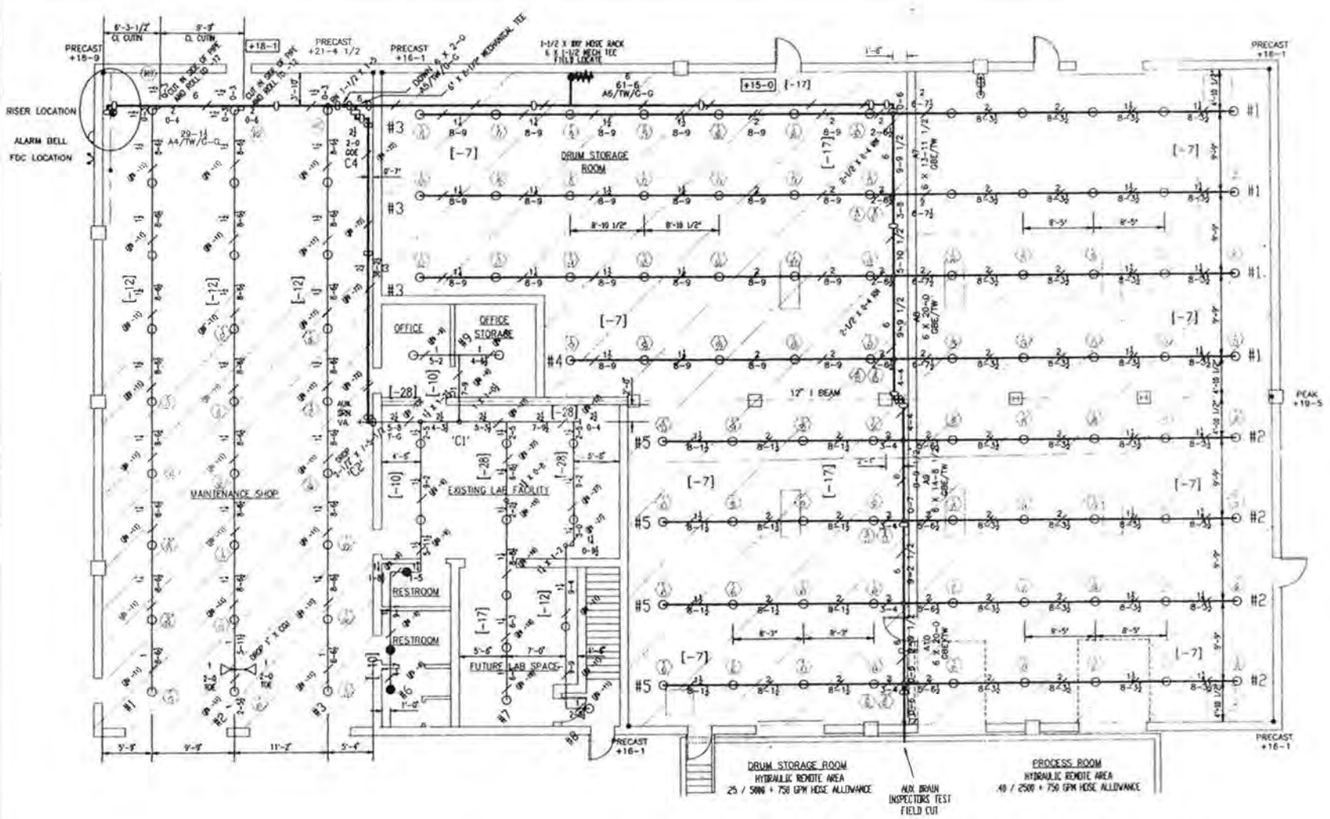
Phone: 262-252-3550

Customer : 6147
BRENNTAG GREAT LAKES
4420 N HARLEY DAVIDSON AV
**
WAUWATOSA, WI 53225
Phone: 262-252-6246

Work Order Number:
Work Order Date :
Service Visit :
For Month . . . :

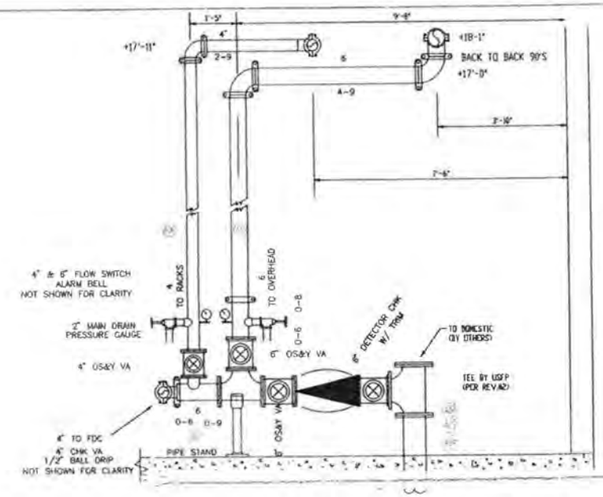
Survey Items

Category	Item	Location	Mfg	Date	LXD	LXT	Next Exchange
PORT	EXTINGUISHER AND FIRE HOSE						
	560 10ABC	39- N EXIT	AMEREX	2011	2011	H	2017
	570 10ABC	40-NW WALL	AMEREX	2011	2011	H	2017
	580 10ABC	41- OFFICE	AMEREX	2011	2011	H	2017
	590 10ABC	42-LUNCH RM W	AMEREX	2011	2011	H	2017
	600 10ABC	43- EXIT TO SHOP	AMEREX	2011	2011	H	2017
	610 10ABC	44- N WALL	AMEREX	2011	2011	H	2017
	620 10ABC	45- N BEAM	AMEREX	2011	2011	H	2017
	630 10ABC	46- CNTR BEAM	AMEREX	2011	2011	H	2017
	640 10ABC	47- W EXIT	AMEREX	2011	2011	H	2017
	650 10ABC	48- SW WALL	AMEREX	2011	2011	H	2017
	660 10ABC	49- SW DOCK	AMEREX	2011	2011	H	2017
	670 10ABC	50- SE DOCK	AMEREX	2011	2011	H	2017
	680 10ABC	51- SE WALL	AMEREX	2011	2011	H	2017
	690 10ABC	52- E WALL	AMEREX	2011	2011	H	2017
	700 10ABC	53 LUNCH RM E					



OVERHEAD FIRE PROTECTION

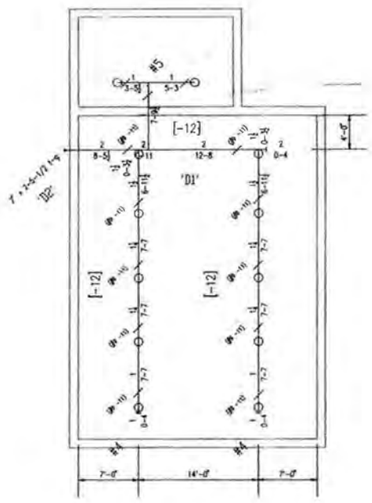
SCALE: 1/8" = 1'-0" North



RISER DETAIL

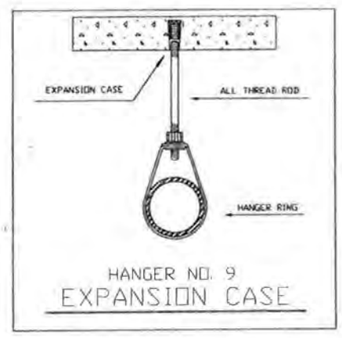
SCALE: 1/2" = 1'-0"

FIELD CUT HEADS UNDER OVERHEAD DOORS AS REQUIRED



MEZZANINE PLAN

1/8"=1'-0" North



HANGER NO. 9
EXPANSION CASE

Pipe hangers shall be installed as required by NFPA for supporting sprinkler piping. No other piping and/or devices are to be attached to the sprinkler pipe hanger system unless the hanger has been specifically designed for the additional loading. THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICE TO IMPROVE THE STRUCTURAL STRENGTH OF THE BUILDING TO ENABLE IT TO CARRY THE LOAD OF THE FIRE PROTECTION SYSTEM.

PIPE MATERIALS

All pipe to be black steel with black cast/maleable iron fittings with joints as per NFPA. Pipe shall be as per the following schedule- (unless noted otherwise)

Line Piping - Schedule 40 Standard wall
X-Main Piping - Schedule 10 Thinwall
Bulk Main Piping - Schedule 10 Thinwall
Riser Piping - Schedule 10 Thinwall

GENERAL NOTES & SYMBOLS

SYMBOL	DESCRIPTION
—O—	286 Deg. F. 17/32" Orifice Brass Upright Sprinkler Head
—/—	Aproximate Hanger Location
+0-0	Elevation From Floor to Centerline of Pipe
-0	Elevation down From Deck to Centerline of Pipe
(1)	Hydraulic Reference Point

SYSTEM DESIGN

DRUM STORAGE ROOM

Sprinkler system to be wet and hydraulically calculated
Piping is sized as per NFPA 30 Flammable Liquids / Rack Storage
Class IB Liquid maximum height of 19.5 Ft
The design density is .25 / 5000
Total combined inside and outside hose demands of 750 GPM has been allowed for in hyd. calculations
Maximum sprinkler head spacing - 100 Square Ft

PROCESS ROOM

Sprinkler system to be wet and hydraulically calculated
Piping is sized as per NFPA 13 Extra Hazard II
The design density is .40 / 2500
Total combined inside and outside hose demands of 750 GPM has been allowed for in hyd. calculations
Maximum sprinkler head spacing - 100 Square Ft

WATER SUPPLY

STATIC	76 PSI
RESIDUAL	56 PSI
FLOW	2930 GPM
LOCATION	HYDRANT IN FRONT OF BUILDING

REVISIONS		SPRINKLER SYMBOL DESCRIPTION								
		SYMBOL	SIZE	MODEL	MAKE	FINISH	STYLE	TEMP	K-FACTOR	TOTAL
		O	17/32"	CENTRAL	GB	BRASS	UPRIGHT	286	8.0	82
3	STOCKLIST RACKS	O	1/2"	CENTRAL	GB	BRASS	UPRIGHT	286	5.6	52
2	8X8X6 TEE BY USFP	◁	1/2"	CENTRAL	GB	BRASS	HSW	286	5.6	2
1	SPRINKLER ENTIRE BLDG.	●	1/2"	CENTRAL	GB	CHROME	PENDENT	165	5.6	3
		TOTAL SPRINKLERS SHOWN ON THIS SHEET								
		TOTAL SPRINKLERS REQUIRED ON THIS CONTRA								

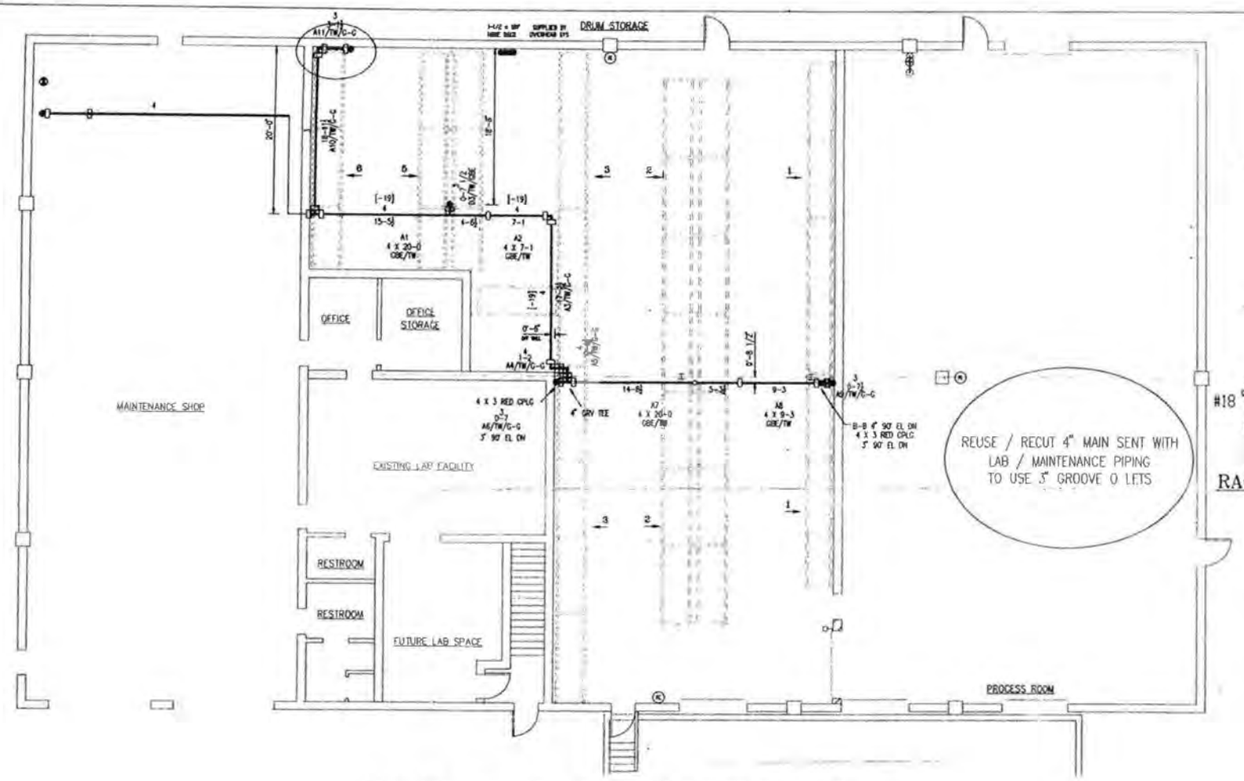
UNITED STATES FIRE PROTECTION

OVERHEAD FIRE PROTECTION

PROJECT
THE MILSOLV COMPANIES
N59W14765 BOBOLINK AVE
MENOMONEE FALLS, WISCONSIN

UNITED STATES FIRE PROTECTION
[illegible] NEW BERLIN, WI 53146

Review Agency:	
Date:	09-22-1993
Scale:	1/8" = 1'-0"
Job No.	7152
Drawn By:	JP
Sheet No.	[illegible]



RACK FIRE PROTECTION

SCALE: 1/8" = 1'-0" North

Rack Sprinklers to be 165 Deg. F. 1/2" Orifice Brass Pendent Sprinkler Head with Shield

(FE) DENOTES FIRE EXTINGUISHER
EXTINGUISHER TO BE A MINIMUM OF 2BI BRT CHEMICAL FIRE EXTINGUISHER

PIPE MATERIALS

All pipe to be black steel, with black cast/malleable iron fittings with joints as per NFPA.
Pipe shall be as per the following schedule- (unless noted otherwise)
- Line Piping - Schedule 40 Standard wall
- X-Main Piping - Schedule 10 Thinwall
- Bulk Main Piping - Schedule 10 Thinwall
- Riser Piping - Schedule 10 Thinwall

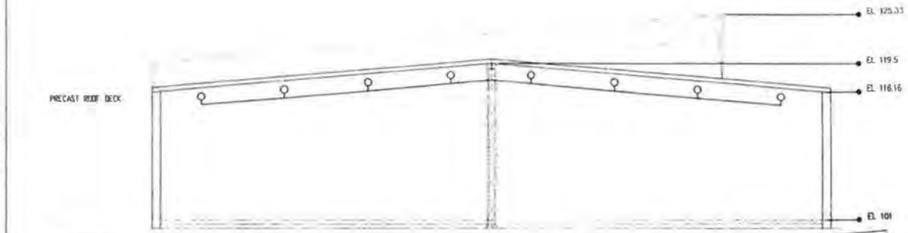
SYSTEM DESIGN

RACK SYSTEM

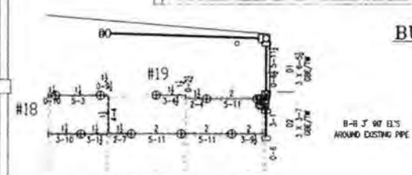
Sprinkler system to be wet and hydraulically calculated
Piping is sized as per NFPA 30 Flammable Liquids with an end head pressure of 30 psi
Sprinkler heads to be spaced at 8'-0" max. horizontally
One line of sprinklers above each tier of storage
Sprinklers located in longitudinal flue space, staggered vertically
Shields required with multi-levels
Total combined inside and outside hose demands of 750 GPM has been allowed for in hyd. calculations
Rack system is balanced with Overhead system

WATER SUPPLY

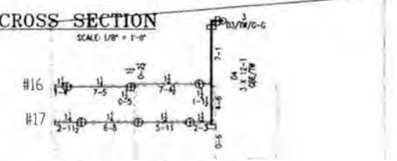
Static	76 psi
Residual	56 psi
Flow	2930 gpm
Location	Hydrant in Front of building



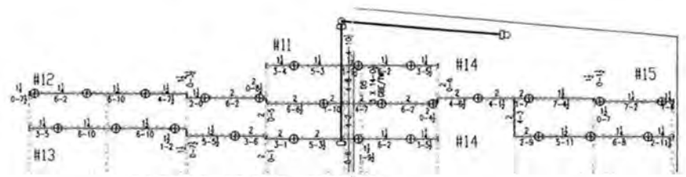
BUILDING CROSS SECTION
SCALE: 1/8" = 1'-0"



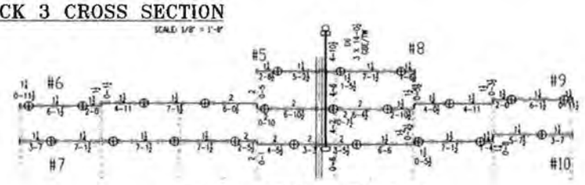
RACK 6 CROSS SECTION
SCALE: 1/8" = 1'-0"



RACK 5 CROSS SECTION



RACK 3 CROSS SECTION
SCALE: 1/8" = 1'-0"



RACK 2 CROSS SECTION
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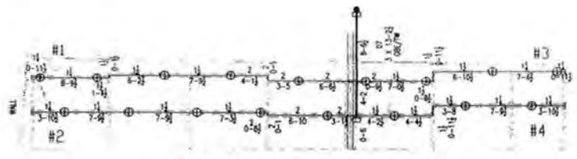
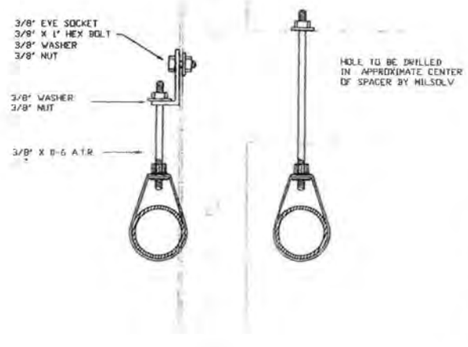


RACK 1 CROSS SECTION
SCALE: 1/8" = 1'-0"

SITE PLAN

SCALE: 1" = 80'-0" North



REVISIONS		SPRINKLER SYMBOL DESCRIPTION								
		SYMBOL	SIZE	MODEL	MAKE	FINISH	STYLE	TEMP	K-FACTOR	TOTAL
		O	1/2	CENTRAL	RACK	BRASS	PENDENT	165	5.6	79
2	STOCKLIST RACKS 12-29-93									
1	SPRINKLER LAB AREA 12-7-93									
		TOTAL SPRINKLERS SHOWN ON THIS SHEET								79
		TOTAL SPRINKLERS REQUIRED ON THIS CONTRACT								316

UNITED STATES FIRE PROTECTION

RACK FIRE PROTECTION GENERAL NOTES & DETAILS

PROJECT
THE MILSOLV COMPANIES
N59 W14765 BOBOLINK AVE
MENOMONEE FALLS, WISCONSIN

UNITED STATES FIRE PROTECTION
17750 W. LIBERTY LA. NEW BERLIN, WI 53146
(414) 782-3311

Review Agency:
Date: 09-22-1993
Scale: 1/8" = 1'-0"
Job No.: 7152
Drawn By: JP
Sheet No.: FP-2 OF 2