TREATMENT & STORAGE FACILITY INSPECTION - TANK SYSTEM

WISCONSIN DEPT. OF NATURAL RESOURCES

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WASTE & MATERIALS MANAGEMENT PROGRAM

This Inspection Form Supplement, used in conjunction with the TREATMENT AND STORAGE FACILITY INSPECTION REPORT, is for the inspection of facilities that are accumulating hazardous waste in licensed tank(s) at the facility.

Section 1: Assessment of an Existing Tank System's Integrity

A.001: Assessment of existing tank system?s integrity. If there is no existing tank system go to A.12. ?Existing tank system" means a tank system that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to March 1, 1991.		
A.002: For each existing tank system that does not have secondary containment meeting the requirements of s. NR 664.0193, there is written assessment that is kept on file at the facility that was reviewed and certified by a qualified professional engineer in accordance with s. NR 670.011(4), that attests to the tank system?s integrity. This written assessment was completed by January 12, 1988.		664.0191(1)
A.003: The written assessment required under s. NR 664.0191(1) considered the design standards, if available, according to which the tank and ancillary equipment were constructed.		664.0191(2)(a)
A.004: The written assessment required under s. NR 664.0191(1) considered the hazardous characteristics of the wastes that have been or will be handled.		664.0191(2)(b)
A.005: The written assessment required under s. NR 664.0191(1) considered the existing corrosion protection measures.		664.0191(2)(c)
A.006: The written assessment required under s. NR 664.0191(1) considered the documented age of the tank system, if available, (otherwise, an estimate of the age).		664.0191(2)(d)
A.007: The written assessment required under s. NR 664.0191(1) for non-enterable underground tank considered the results of a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects.		664.0191(2)(e)1.
A.008: The written assessment required under s. NR 664.0191(1) for enterable underground tank and ancillary equipment consisted of at least one of the following: 1. A leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects. 2. A internal inspection. 3. A tank integrity examination that is certified by a qualified professional engineer in accordance with s. NR 670.011(4) that addresses cracks, leaks, corrosion, and erosion. Note: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, ?Atmospheric and Low-Pressure Storage Tanks?, 4th edition, 1981, may be used, where applicable, as guidelines in conducting the integrity examination of an other than non-enterable underground tank system.		664.0191(2)(e)2.
A.009: Tank systems that store or treat materials that become hazardous wastes subsequent to March 1, 1991 conducted this assessment within 12 months after the date that the waste becomes a hazardous waste.		664.0191(3)
A.010: The generator complied with the requirements of s. NR 664.0196 when the results of the written assessment required under s. NR 664.0191(1) found the tank to be to be leaking or unfit for use.		664.0191(4)

Section 2: Design and Installation of a New Tank System

A.011: Assessment of a new tank system?s integrity. If there is not a new tank system go to N.32. ?Existing tank system? means a tank system that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to March 1, 1991.		
A.012: For each new tank system or component the generator has a written assessment that was reviewed and certified by a qualified professional engineer in accordance with s. NR 670.011(4), that attests to the tank system having sufficient structural integrity and is acceptable for the storing and treating of hazardous waste.		664.0192(1)
A.013: The written assessment required under s. NR 664.0192(1) considered the design standards according to which the tank and ancillary equipment were constructed.		664.0192(1)(a)
A.014: The written assessment required under s. NR 664.0192(1) considered the hazardous characteristics of the wastes that have been or will be handled.		664.0192(1)(b)
A.015: The written assessment required under s. NR 664.0192(1) for a tank system having an external metal shell or any external metal component that is or will be in contact with the soil or water showed that a corrosion expert considered the following factors, including but not limited to, as potential sources for corrosion: 1. Soil moisture content. 2. Soil pH. 3. Soil sulfides level. 4. Soil resistivity. 5. Structure to soil potential. 6. Influence of nearby underground metal structures (e.g., piping). 7. Stray electric current. 8. Existing corrosion-protection measures (e.g., coating, cathodic protection).		664.0192(1)(c)1.
A.016: The written assessment required under s. NR 664.0192(1) for tank a system having an external metal shell or any external metal component that is or will be in contact with the soil or water, showed that a corrosion expert considered the type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component. This corrosion protection consist of one or more of the following: 1. Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic. 2. Corrosion-resistant coating (such as epoxy or fiberglass) with cathodic protection (e.g., impressed current or sacrificial anodes). 3. Electrical isolation devices such as insulating joints and flanges. Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, ?Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems?, and the American Petroleum Institute (API) Publication 1632, ?Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems?, may be used, where applicable, as guidelines in providing corrosion protection for tank systems.		664.0192(1)(c)2.
A.017: The written assessment required under s. NR 664.0192(1) considered vehicular traffic that could potentially damage underground tank system/components.		664.0192(1)(d)
A.018: The written assessment required under s. NR 664.0192(1) considered the tank foundation can maintain the load of a full tank.		664.0192(1)(e)1.

Section 2: Design and Installation of a New Tank System

A.019: The written assessment required under s. NR 664.0192(1) considered if the tank system will need to be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone.		664.0192(1)(e)2.
A.020: The written assessment required under s. NR 664.0192(1) considered if the tank system will need to withstand the effects of frost heave.		664.0192(1)(e)3.
A.021: The generator must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation.		664.0192(2)
A.022: Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or a qualified professional engineer, either of whom is trained and experienced in the proper installation of tank systems, must inspect the tank system and components for the presence of any of the following items: 1. Weld breaks. 2. Punctures. 3. Scrapes of protective coatings. 4. Cracks. 5. Corrosion. 6. Other structural damage or inadequate construction or installation. All discrepancies shall be remedied before the tank system is covered, enclosed or placed in use.		664.0192(2)
A.023: The backfill material used for tank systems, components, and piping that are placed underground is a noncorrosive, porous, homogeneous substance and was carefully installed so that the backfill material was placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.		664.0192(3)
A.024: Tanks and ancillary equipment were tested for tightness prior to being covered, enclosed, or placed in use.		664.0192(4)
A.025: If a tank system is found not to be tight, all repairs necessary to remedy the leaks in the tank system were performed prior to the tank system being covered, enclosed or placed in use.		664.0192(4)
A.026: Ancillary equipment is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction. Note: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), ?Installation of Underground Petroleum Storage Systems?, or ANSI Standard B31.3, ?Petroleum Refinery System?, may be used, where applicable, as guidelines for proper installation of piping systems.		664.0192(5)
A.027: The generator provided the necessary corrosion protection system (based on the information provided under s. NR 664.0192(1)(c)) needed to ensure that the integrity of the tank system during use.		664.0192(6)
A.028: To ensure proper installation, an independent corrosion expert supervised the installation of a corrosion protection system that was field fabricated.		664.0192(6)
A.029: The facility files contains the written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of s. NR 664.0192(2) to (6) that attests to the tank system being properly designed and installed and that repairs, pursuant s. NR 664.0192(2) to (4) were performed.		664.0192(7)

Section 2: Design and Installation of a New Tank System

A.030: The written statements under s. NR 664.0192(7) must include the certification statement that is required in s. NR 670.011 (4). This certification statement must state the following: 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.		664.0192(7)

Section 3: Containment & Detection of Releases

B.001: Containment and detection of releases		
B.002: Prior to being put into service all new or existing tank system or component were provided with a secondary containment system that meet the requirements of s. NR 664.0193(1) to (5)		664.0193(1)(a)
B.003: Within 2 years of the hazardous waste listing or when the tank system has reached 15 years of ageever comes later, a secondary containment system meeting the requirements of s. NR 664.0193(1) to (5) was put into place for tank systems that store or treat materials that become hazardous wastes.		664.0193(1)(b)
B.004: The secondary containment system is designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system.		664.0193(2)(a)
B.005: The secondary containment system is capable of detecting and collecting releases and accumulated liquids until the collected material is removed.		664.0193(2)(b)
B.006: The secondary containment system is constructed of or lined with materials that are compatible with the wastes placed in the tank system.		664.0193(3)(a)
B.007: The secondary containment system has sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic).		664.0193(3)(a)
B.008: The secondary containment system is placed on a foundation or base capable of providing support to the secondary containment system.		664.0193(3)(b)
B.009: The secondary containment system is resistance to pressure gradients above and below the system.		664.0193(3)(b)
B.010: The secondary containment system is capable of preventing failure due to settlement, compression, or uplift.		664.0193(3)(b)
B.011: The secondary containment system is provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours.		664.0193(3)(c)

Section 3: Containment & Detection of Releases

B.012: The secondary containment system is sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation.		664.0193(3)(d)
B.013: Spills, leaked wastes, and accumulated precipitation are removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.		664.0193(3)(d)
B.014: The secondary containment for tanks includes one or more of the following devices: 1. A liner (external to the tank). 2. A vault. 3. A double-walled tank. 4. An equivalent device as approved by the department.		664.0193(4)
B.015: Secondary containment system that are external liners are designed or operated to contain 100 percent of the capacity of the largest tank within the external liner's boundary.		664.0193(5)(a)1.
B.016: Secondary containment system that are external liners are designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event. NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html		664.0193(5)(a)2.
B.017: Secondary containment system that are external liners are free of cracks or gaps.		664.0193(5)(a)3.
B.018: Secondary containment system that are external liners are designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank (i.e., capable of preventing lateral as well as vertical migration of the waste).		664.0193(5)(a)4.
B.019: Secondary containment system that are external liners are provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete.		664.0193(5)(a)5.
B.020: Secondary containment system that are vault systems are designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.		664.0193(5)(b)1.
B.021: Secondary containment system that are vault systems are designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event. NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html		664.0193(5)(a)2.
B.022: Secondary containment system that are vault systems are constructed with chemical-resistant water stops in place at all joints (if any).		664.0193(5)(b)3.
B.023: Secondary containment system that are vault systems are provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete		664.0193(5)(b)4.
B.024: Secondary containment system that are vault systems are provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated are ignitable waste under s. NR 661.0021.		664.0193(5)(b)5.a.

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B.025: Secondary containment system that are vault systems are provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated are reactive waste under s. NR 661.0023 that may form an ignitable or explosive vapor.		664.0193(5)(b)5.b.
B.026: Secondary containment system that are vault systems are provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.		664.0193(5)(b)6.
B.027: Secondary containment system that are double-walled tanks are designed as an integral structure (i.e., an inner tank within an outer shell) so that the outer shell contains any release from the inner tank.		664.0193(5)(c)1.
B.028: Secondary containment system that are double-walled tanks are protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell.		664.0193(5)(c)2.
B.029: Secondary containment system that are double-walled tanks are provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours. If the existing leak detection technology or site conditions do not allow for a detection of a release within 24 hours and the generator receives department concurrence, then the detection of a release can be at the earliest practicable time.		664.0193(5)(c)3.
B.030: Ancillary equipment is provided with full secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of s. NR 664.0193(2) and (3). The following ancillary equipment is not subject to secondary containment : 1. Aboveground piping, excluding flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis. 2. Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis. 3. Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis. 4. Pressurized aboveground piping systems with automatic shut-off devices, such as excess flow check valves, flow metering shutdown devices, or loss of pressure actuated shut-off devices that are visually inspected for leaks on a daily basis.		664.0193(6)(a)
B.031: The generator of a tank system that has been granted a variance from secondary containment under s. NR 664.0193(7)(a) in which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance) did all of the following:1. Comply with the requirements of s. NR 664.0196, except sub. (4). 2. Decontaminate or remove contaminated soil to the extent necessary to do all of the following a. Enable the tank system, for which the variance was granted, to resume operation with the capability for the detection of and response to releases at least equivalent to the capability it had prior to the release. b. Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water. 3. If contaminated soil cannot be removed or decontaminated in accordance with s. NR 664.0193(7)(c)2., then comply with the requirements of s. NR 664.0197(2).		664.0193(7)(c)

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B.032: The generator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of s. NR 664.0193(7)(a) at which a release of hazardous waste has occurred from the primary tank system but has migrated beyond the zone of engineering control (as established in the variance), did all of the following: 1. Comply with the requirements of s. NR 664.0196(1) to (4). 2. Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed, or if groundwater has been contaminated, the owner or operator shall comply with the requirements of s. NR 664.0197(2). 3. If repairing, replacing, or reinstalling the tank system, then provide secondary containment in accordance with the requirements of s. NR 664.0193 (1) to (6) or reapply for a variance from secondary containment and meet the requirements for new tank systems in s. NR 664.0192 when the tank system is being replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed, and groundwater or surface water has not been contaminated.		664.0193(7)(d)
B.033: For non-enterable underground tanks that do not meet the requirements of s. NR 664.0193 there is an annual leak test that meets the requirements of s. NR 664.0191(2)(e). Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refining Equipment, Chapter XIII, ?Atmospheric and Low Pressure Storage Tanks?, 4th edition, 1981, may be used, when applicable, as guidelines for assessing the overall condition of the tank system.		664.0193(9)(a)
B.034: For enterable underground tanks and any ancillary equipment that do not meet the requirements of s. NR 664.0193 there is an annual leak test that meets the requirements of s. NR 664.0191(2)(e) or there is a schedule and procedure developed that assesses the overall condition of the tank system by a qualified professional engineer. The schedule and procedure must detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The generator must remove the stored waste from the tank, if necessary, to allow an assessment of the condition of all internal tank surfaces. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated. Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refining Equipment, Chapter XIII, ?Atmospheric and Low Pressure Storage Tanks?, 4th edition, 1981, may be used, when applicable, as guidelines for assessing the overall condition of the tank system.		664.0193(9)(b)
B.035: Existing tanks without secondary containment. For ancillary equipment, a leak test or other integrity assessment as approved by the department shall be conducted at least annually.		664.0193(9)(c)
B.036: The facality maintained on file at the facility a record of the results of the ssessments conducted in accordance with s. NR 664.0193(9)(a) to (c).		664.0193(9)(d)
B.037: Existing tanks without secondary containment. If a tank system or component is found to be leaking or unfit-for-use as a result of the leak test or assessment in s. NR 664.0193(9)(a) to (c), the generator complied with the requirements of s. NR 664.0196.		664.0193(9)(e)

Section 4: General Operating Requirements

C.001: General operating requirements.		

Section 4: General Operating Requirements

C.002: Hazardous wastes or treatment reagents may not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.		664.0194(1)
C.003: The generator uses appropriate controls and practices in order to prevent spills and overflows from the tank or secondary containment system. These controls and practices include at a minimum all of the following: 1. Spill prevention controls (e.g., check valves, dry discount couplings). 2. Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff or bypass to a standby tank). 3. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.		664.0194(2)
C.004: The generator must comply with the requirements of s. NR 664.0196 if a leak or spill occurs in the tank system.		664.0194(2)

Section 5: Inspections

D.001: Inspections		
D.002: The facality follows the schedule and procedure for inspecting overfill controls.		664.0195(1)
D.003: The generator inspects at least once each operating day all of the following: 1. Overfill and spill control equipment (for example, waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order. 2. Above ground portions of the tank system, if any, to detect corrosion or releases of waste. 3. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (for example, dikes) to detect erosion or signs of releases of hazardous waste (for example, wet spots, dead vegetation). Section NR 664.0195(3) deals with generators who use either leak detection equipment to alert facility personnel to leaks or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly those areas described in this requirement. Under s. NR 664.0195(3) Wis. Adm. Code, weekly inspections are permitted when there is either leak detection equipment to alert facility personnel to leaks or there are established workplace practices to ensure leaks are promptly identified.		664.0195(3)
D.003: The generator must inspect, where present, at least once each operating day, data gathered from monitoring and leak detection equipment (for example, pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.		664.0195(2)
D.004: A generator may conduct weekly inspections to those areas described in s. NR 664.0195(2)(a) to (c) (see item N.073) when the generator has leak detection equipment to alert facility personnel to leaks or the generator has established workplace practices to ensure leaks are promptly identified. The use of the alternate inspection schedule must be documented in the facility?s operating record. This documentation must include a description of the established workplace practices at the facility.		664.0195(4)
D.005: Ancillary equipment that is not provided with secondary containment, as described in s. NR 664.0193(6)(a) to (d), is inspected at least once each operating day.		664.0195(5)

Section 5: Inspections

D.006: The generator documents in the facility operating record the inspection of those items in s. NR 664.0195(1) and (2).		664.0195(6)

Section 6: Response to Leak and Spills

E.001: Response to leaks or spills and disposition of leaking or unfit-for-use tank systems. If none go to N.093.		
E.002: The generator immediately removed from service a tank system or secondary containment system from which there has been a leak, spill, or which is unfit for use.		664.0196
E.003: The generator immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspected the system to determine the cause of the release.		664.0196(1)
E.004: Within 24 hours after detection of the leak (or if the generator demonstrates that 24 hours is not possible, then at the earliest practicable time) the generator removed from the tank system as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.		664.0196(2)(a)
E.005: Within 24 hours (or if the generator demonstrates that 24 hours is not possible, then at the earliest practicable time) the generator removed from the secondary containment system all released material in order to prevent harm to human health and the environment.		664.0196(2)(b)
E.006: The generator immediately conducted a visual inspection of the release.		664.0196(3)
E.007: Based upon the visual inspection the generator prevented further migration of the leak or spill to soils or surface water.		664.0196(3)(a)
E.008: Based upon the visual inspection the generator removed and properly dispose of any visible contamination of the soil or surface water.		664.0196(3)(b)
E.009: Any release to the environment (except for a leak or spill of hazardous waste that is less than or equal to a quantity of one pound and immediately contained and cleaned-up.) must be reported to the department within 24 hours of detection. If the release has been reported pursuant to ch. NR 706, that report will satisfy this requirement. Note 1: The department may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under s. 291.37 or 291.85, Stats., requiring corrective action or other response as deemed necessary to protect human health or the environment. Note 2: See s. NR 664.0015(3) for the requirements necessary to remedy a failure. Also, if a hazardous substance is released to the environment, 40 CFR part 302 may require the owner or operator to notify the national response center and s. 292.11, Stats, and ch. NR 706 may require the owner or operator to notify the department.		664.0196(4)(a)

Section 6: Response to Leak and Spills

E.010: Within 30 days of detection of a release to the environment a report required under s. NR 664.0196(4)(a) was submitted to the department that contained all of the following information: 1. Likely route of migration of the release. 2. Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate). 3. Results of any monitoring or sampling conducted in connection with the release, (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the department as soon as they become available. 4. Proximity to downgradient drinking water, surface water and population areas. 5. Description of response actions taken or planned.		664.0196(4)(c)
E.011: Spill with no damage to secondary containment system: Prior to returning the secondary containment system to service the generator made any necessary repairs to secondary containment system and removed any released wastes within the secondary containment system.		664.0196(5)(a)
E.012: Leak from a tank to the secondary containment system: Prior to returning the tank to service the generator made any necessary repairs to the tank.		664.0196(5)(c)
E.013: Leak to the environment from a component of a tank system without secondary containment: The generator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of s. NR 664.0193 before the tank system can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If the source is an aboveground component that can be inspected visually, then the component must be repaired and may be returned to service without secondary containment as long as the requirements of s. NR 664.0196(6) are satisfied.		664.0196(5)(d)
E.014: Leak to the environment from a component of a tank system without secondary containment and a component is replaced to comply with this requirement: That component must then satisfy the requirements for new tank systems or components in ss. NR 664.0192 and 664.0193.		664.0196(5)(d)
E.015: Leak to the environment from a component of a tank system without secondary containment and the leak occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank): The entire component must be provided with secondary containment in accordance with s. NR 664.0193 prior to being returned to use.		664.0196(5)(d)
E.016: If the generator has repaired a tank system in accordance with s. NR 664.0196(5) and the repair has been extensive (for example, installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), then the tank system may not be returned to service unless the generator has obtained a certification by a qualified professional engineer in accordance with s. NR 670.011 (4) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be placed in the operating record and maintained until closure of the facility.		664.0196(6)

Section 7: Special Requirements for Ignitable, Reactive or Incompatible Wastes

F.001: Closure and long-term care. If not applicable go to F.097.		

Section 7: Special Requirements for Ignitable, Reactive or Incompatible Wastes

F.002: At closure of a tank system, the generator removed or decontaminated all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless s. NR 661.0003(4) applies.		664.0197(1)
F.003: If the generator is unable to close the tank system per s. NR 664.0197(1) , then the generator closed the tank system and perform long-term care in accordance with the closure and long-term care requirements that apply to landfills (s. NR 664.0310). In addition, for the purposes of closure, long-term care and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in subchs. G and H of chapter NR 664.		664.0197(2)

Section 8: Subchapter CC Level 1 Standards - Fixed Roof Tanks

G.001: Special requirements for ignitable or reactive wastes. If not applicable go to N.100.		NA1
G.002: Ignitable or reactive waste may not be placed in a tank system, unless one of the following are met: 1. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that all of the following apply: a. The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste under s. NR 661.21 or 661.23. b. The treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, is conducted so that it does not do any of the following: * Generate extreme heat or pressure, fire or explosion or violent reaction. * Produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health. * Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions. * Damage the structural integrity of the device or facility containing the waste. * Through other like means threaten human health or the environment. 2. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react. 3. The tank system is used solely for emergencies.		664.0198(1)
G.003: Ignitable or reactive waste may not be placed in a tank system, unless the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 to 2-6 of the National Fire Protection Association?s ?Flammable and Combustible Liquids Code? (1977 or 1981).		664.0198(2)
G.004: Special requirements for incompatible wastes. If not applicable go to Section O.		

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G.005: Incompatible wastes, or incompatible waste and materials (see ch. NR 664 Appendix V for examples), may not be placed in the same tank system, unless the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, is conducted so that it does not do any of the following: 1. Generate extreme heat or pressure, fire or explosion or violent reaction. 2. Produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health. 3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions. 4. Damage the structural integrity of the device or facility containing the waste. 5. Through other like means threaten human health or the environment.		664.0199(1)
G.006: Hazardous waste may not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, is conducted so that it does not do any of the following: 1. Generate extreme heat or pressure, fire or explosion or violent reaction. 2. Produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health. 3. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions. 4. Damage the structural integrity of the device or facility containing the waste. 5. Through other like means threaten human health or the environment.		664.0199(2)

Section 9: Facility Status Evaluation

H.001: Each tank is clearly marked with a description of its contents or the information for each tank is recorded and maintained in the operating record at that facility.		668.50(1)(b)2.
H.002: Each tank is clearly marked with the quantity of each hazardous waste received and the date each period of accumulation begins or the information for each tank is recorded and maintained in the operating record at that facility.		668.50(1)(b)2.