TANK SYSTEMS STORING HAZARDOUS WASTE
CHECKLIST FOR ITEMS THAT MUST BE KEPT ON-SITE AT FACILITY

According to the "Standardized Permit Rule," **you must keep the information listed below at your facility instead of submitting it to the permitting agency as part of a Part B permit application. The specific information that you will keep at your facility would be based on the requirements found in 40 CFR § 270.290, § 270.305, and § 267, Subpart J. You should keep this information on-site at your facility (and make it available for review by agency inspectors and the public) instead of submitting it to the permitting agency. We expect that you will consolidate the information in one area at the facility, if practicable, to facilitate access. Your tank systems must comply with the design and operating standards in this section. EPA will consider standards established by professional organizations generally recognized by the industry such as the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of this section. The following is a list of required documentation that the applicant must keep at the facility, when storing hazardous waste in tank systems.**

Please note that this checklist only contains those requirements relating directly to tank systems. To ensure that you are maintaining all required on-site documentation, please refer to EPA checklists developed for general facility standards and, if relevant, RCRA-regulated containment buildings and container storage areas.

Requirement	Description	Check Box
(A) Written Assessment of Structural Integrity and Suitability of Tank § 270.305.(a); § 267.191	Provide a written assessment which proves that the tank system(s) at your facility has sufficient structural integrity, and is able to store and treat hazardous waste. The assessment must be certified by an independent, qualified registered professional engineer, and should must include the following information:	
Tank Design Standards § 267.191(a)	The design standard(s) for the construction of tank(s) and/or the ancillary equipment	

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Waste characteristics § 267.191(b)	A description of the hazardous characteristics of the waste(s) to be handled	
Corrosion Protection for New Tanks Systems or Existing Tank Components in Contact with Soil or Water § 267.191(c) (1-2)	For new tank systems at your facility, in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, provide a determination by a corrosion expert of the: (1) Factors affecting the potential for corrosion (2) Type and degree of external corrosion protection needed to ensure tank system integrity during use of the tank system or component.	
Structural Design Considerations § 267.191(d)(1-3)	Design considerations to ensure that: (1) Tank foundations will maintain the load of a full tank. (2) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is located in a saturated zone or is located within a seismic fault zone subject to the standards of Sec. 267.18(a). (3) Tank systems will withstand the effects of frost heave.	
Certification of Written Assessment **§** 270.11(d); 267.191	You must provide proof of certification in accordance with 270.11 (d).	
(B) Dimensions and Capacity of Each Tank ***§ 270.305(b)***	Provide documentation describing the dimensions and capacity of each tank.	

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(C) Description of Feed Systems, Safety Cutoff, Bypass Systems, and Pressure Controls ***§ 270.305(c)***	Provide a detailed plan describing the feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).	
(D) Diagram of Piping, Instrumentation, and Process Flow for Each Tank System ***§ 270.305(d)***	Provide a diagram of piping, instrumentation, and process flow for each tank system.	
(E) Description of Materials and Equipment used to Provide External Corrosion Protection. ***§ 270.305(e); 267.191(c)***	Provide a description of materials and equipment used to provide external corrosion protection.	
Factors Affecting the Potential for Corrosion § 270.305; 267.191(c)(1)	Provide a description of factors affecting the potential for corrosion [such as soil moisture content, soil pH, soil sulfide level, soil resistivity, structure to soil potential, influence of nearby underground metal structures (e.g., piping), existence of stray electric current, existing corrosion- protection measures (e.g., coating, cathodic protection)].	
External Corrosion Protection § 270.305(e); 267.191(c)(2)	Provide a description of the type and degree of external corrosion protection needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: corrosion resistant materials of construction such as special alloys, fiberglass reinforced plastic, corrosion- resistant coating (such as epoxy, fiberglass) with cathodic protection (e.g., impressed current or sacrificial anodes); and electrical isolation devices such as insulating joints, flanges.	

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(F) New Tank Systems ***§ 270.305(f); § 267.192;*** ***§ 267.194***	Provide a detailed description of how all new tanks systems will be installed at your facility to meet the requirements of **§** 267.192 and **§** 267.194.	
Handling and Inspection Procedures **§** 267.192(a)(1-6)	Provide a detailed description demonstrating you followed proper handling procedures to prevent damage to a new tank system during installation. Before placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, must inspect the system 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/installation.	
Handling and Inspection Procedures **§** 267.192(b)	Provide a detailed description of how you plan to remedy all discrepancies before the tank system is placed in use.	
Protection of Ancillary Equipment **§** 267.194(a)	Provide a detailed description of how you plan to support and protect ancillary equipment against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.	
Installation of Corrosion Protection System **§** 267.194(b)	Provide a detailed description of the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under § 267.191(c), to ensure the integrity of the tank system during use. Include documentation that an independent corrosion expert supervised the installation of a corrosion protection system that is field fabricated to ensure proper installation.	

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Certification of the Design and Installation of the Tank System **§** 267.194(c)	Provide written statements by certified persons, which attest that the tank system was properly designed and installed and that you made repairs specified in § 267.192 and 267.193. These written statements must also include the certification statement as required in 40 CFR 270.11(d) of this chapter.	
(***G) Secondary Containment System*** ***§ 270.305(g); § 267.195; § 267.196***	Provide a detailed description of how your tank system(s) secondary containment system meets, or will meet, the design, construction and operational requirements of § 267.195; § 267.196.	
Prevention of Migration of Wastes or Accumulated Liquid **§** 267.195(a) (1-2)	Provide detailed plans and description of how the secondary containment systems will be: (1) 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; and (2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.	

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Design and Construction of Secondary Containment System § 267.195(b)(1-4)	Provide a detailed description of how the design and construction of the secondary containment system for each tank system at your facility will prevent releases to the environment. The description should document that the containment system(s) is (are): (1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and has sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic). (2) Placed on a foundation or base that provides support to the secondary containment system, resists pressure gradients above and below the system, and is capable of preventing failure due to settlement, compression, or uplift; (3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time; (4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. You must remove spilled or leaked waste and accumulated precipitation from the secondary containment system within 24 hours or as promptly as possible to prevent harm to human health and the environment.	

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Requirements of External Liner, Vault, Double-Walled Tank § 267.196(a)(1-4)	Provide detailed plans and description of how the secondary containment system for tanks is or will be designed, constructed, and operated to meet one or more of the following: (1) A liner (external to the tank) (2) A vault (3) A double-walled tank (4) An equivalent device (You must maintain documentation of equivalency.)	
External Liner System § 267.196(b)(1-4)	Provide detailed plans and description of how the external liner systems must be: (1) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary; (2) 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 must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event; (3) Free of cracks or gaps; (4) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (that is, capable of preventing lateral and vertical migration of the waste).	

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Vault Systems § 267.196(c)(1-6)	Provide detailed plans and description of how your facility's tank vault system(s) will be: (1) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary; (2) 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. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event: (3) Constructed with chemical-resistant water stops in place at all joints (if any); (4) 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; (5) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste is stored or treated; (6) 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.	

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Double-Walled Tanks **§** 267.196(d)(1-3)	Provide detailed plans and description of how the double-walled tanks at your facility will be: (1) Designed as an integral structure (that is, an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell; (2) Protected, if constructed of metal, from corrosion of the primary tank interior and external surface of the outer shell; (3) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.	
(H) Reserved ***§ 270.305 (h)***	Currently, you do not have to provide any information about your facility's tank system(s) under § 270.305(h). This section of the regulations is reserved.	
(I) Controls and Practices to Prevent Spills and Overflows ***§ 270.305;§ 267.198***	Provide a detailed description of the controls and practices to spills and overflows from your facility tank system(s). The description should address all of the requirements in § 267.198	
Controls and Practices to Prevent Spills and Overflows § 267.198(a)	Provide a detailed description of the controls and practices to prevent placement of hazardous wastes or treatment reagents in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.	

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Controls and Practices to Prevent Spills and Overflows § 267.198(b)(1-3)	Provide a detailed description of the appropriate controls and practices used to prevent spills and overflows from tank or containment systems. These include, at a minimum: (1) Spill prevention controls (for example, check valves, dry disconnect couplings); (2) Overfill prevention controls (for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); (3) Sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.	
Emergency Response to Leak or Spill from a Tank System or Secondary Containment System § 267.198(c); § 267.200	Provide a detailed description demonstrating how you plan to comply with the requirements of § 267.200 if a leak or spill occurs in the tank system or secondary containment system, or if either system is unfit for use.	
(J) Ignitible, Reactive, or Incompatible Wastes ***§ 270.305; § 267.202; § 267.203***	For each tank system(s) at your facility that stores or treats ignitable, reactive, or incompatible wastes, provide a description of how your facility's operating procedures, and tank and facility design, will meet the requirements of § 267.202 and § 267.203 to prevent fires, explosions or other reactions.	

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Operating Requirements to Manage Ignitable, Reactive, Waste in Tank Systems § 267.202(a)(1-3)	Provide a detailed description demonstrating how your facility will meet the following requirements: (1) Comply with § 267.17(b) when treating, rendering, or mixing waste before or immediately after placement in the tank system, and that the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under §§ 261.21 or 261.23; (2) Store or treat the waste in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or (3) Use the tank system solely for emergencies.	
Storing or Treating Ignitable or Reactive Waste in a Tank § 267.202(b)	Provide a detailed description of how your facility will comply with the requirements for maintaining protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line.	
Management of Incompatible Wastes § 267.203(a)	Provide a detailed description of how your facility's operating procedures will ensure that you will not place incompatible wastes, or incompatible wastes and materials, in the same tank system, unless you comply with § 267.17(b).	
Management of Incompatible Wastes § 267.203(b)	Provide a detailed description of how the operating requirements will ensure that you will not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless you comply with § 267.17(b).	
(K) Air Emission Control Equipment ***§ 270.315***	Provide information on the air emission control equipment at your facility that is specifically related to tanks as required under § 270.315(a), § 267.1084(d); § 267.1084(e) and § 267.1084(f).	

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Floating Roof Cover Design § 270.315(a); § 267.1084(d)(1-2); § 267.1084(e)(1); § 267.1084(f)(1)	For each floating roof cover installed on any tank at your facility (fixed-roof tank equipped with an internal floating roof and any tank equipped with an external floating roof) according to § 267.1084(d)(1-2), please provide the following information: • Documentation, prepared by you or by the cover manufacturer/vendor, that describes the roof's cover design. • Your certification that the cover(s) meet the design specifications listed in § 267.1084(e)(1); § 267.1084(f)(1)	
Enclosures to Control Air Pollution § 270.315(c); § 267.1084(d)(5); § 267.1084(e)(1)(ii)	For each enclosure used at your facility to control air pollution emissions from tanks, provide the most recent set of calculations that you performed to verify that the enclosure meets the criteria of a permanent total enclosure as verified under 40 CFR 51.741	
Closed Vent Systems § 270.315(e); § 270.24(c-d); § 267.1087	Provide documentation for each closed-vent system and control device installed at your facility's tank system(s) under the requirements of § 267.1087 at your facility. This information should include the design and performance information required under § 270.24(c-d)	
Emissions Monitoring Plan § 270.315(f); Method 21 40 CFR Part 60, Appendix A	Provide an air emissions monitoring plan for the tank system(s) at your facility. The plan must address both Method 21 40 CFR Part 60, Appendix A and control device monitoring methods. documentation for each closed-vent system and control device installed at your facility's tank system(s) under the requirements of § 267.1087 at your facility. This information should include the design and performance information required under § 270.24(c-d)	