Pollution Control Agency

Adopted Permanent Rules Relating to Hazardous Waste; Tanks

Rules as Adopted

7045.0020 DEFINITIONS.

Subpart 1. to 23. [Unchanged.]

Subp. 23a. **Existing tank system or existing component.** "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste that is in operation, or for which installation has commenced on or before the effective date of this subpart, or a tank system or component that is regulated as an existing tank system or component under Code of Federal Regulations, title 40, section 260.10. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either (1) a continuous on-site physical construction or installation program has begun, or (2) the owner or operator has entered into contractual obligations, which cannot be canceled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

Subp. 24. to 59. [Unchanged.]

Subp. 59a. **New tank system or new tank component.** "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after the effective date of this subpart, or a tank system or component that is regulated as a new tank system or component under Code of Federal Regulations, title 40, section 260.10. However, for purposes of obtaining approval for a petition under part 7045.0075, subpart 7, a new tank system is one for which construction commences after the applicable effective dates of

regulation as required in this subpart.

Subp. 59b. to 109. [Unchanged.]

7045.0075 PETITIONS.

Subpart 1. to 5. [Unchanged.]

Subp. 6. **Petition for alternate design or operating practices for secondary containment of tank systems.** A person may submit a petition to the commissioner for approval to use alternate design or operating practices in lieu of the requirements of parts 7045.0528, subpart 4, and 7045.0628, subpart 4. The commissioner's decision shall be based on a demonstration by the petitioner that the alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous wastes or hazardous constituents into surface and ground water as effectively as the secondary containment requirements of parts 7045.0528, subpart 4, and 7045.0628, subpart 4, during the active life of the tank system.

A. In order to determine equivalent protection, the commissioner shall consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operating practices;

(3) the hydrogeologic setting of the facility, including the thickness of soils present between the tank system and ground water; and

(4) factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

B. to E. [Unchanged.]

Subp. 7. [Unchanged.]

7045.0528 TANKS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Design and installation of new tank systems or components.** New tank systems and components must be designed as follows:

A. Owners or operators of new tank systems or components must obtain and submit a written assessment, reviewed and certified by an independent, qualified registered professional engineer, attesting that the tank system has sufficient structural integrity and is acceptable for storing and treating hazardous waste. The owners or operators of tank systems that were required to conduct this assessment by Code of Federal Regulations, title 40, section 264.192(a), must submit this assessment as required by that regulation. Owners or operators of other new tank systems must submit this assessment to the commissioner at the time of submittal of Part B information. The certification must include the statements in parts 7001.0070 and 7001.0540. The assessment must show that the foundation, structural support, seams, connections, and pressure controls, if applicable, are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the commissioner to review and approve or disapprove the acceptability of the tank system design, must include the following information:

(1) design standards according to which tanks and/or the ancillary equipment are constructed;

(2) hazardous characteristics of the waste to be handled;

(3) for new tank systems or components 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, a determination by a corrosion expert of the factors affecting the potential for corrosion, including soil moisture content, soil pH, soil sulfides level, soil resistivity, structure to soil potential, influence of nearby underground metal structures such as piping, existence of stray electric current, and existing corrosion-protection measures such as coating and cathodic protection. The determination must also

address 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 protection must consist of corrosion-resistant materials of construction such as special alloys or fiberglass reinforced plastic; corrosion-resistant coating, such as epoxy or fiberglass, with cathodic protection such as impressed current or sacrificial anodes; or electrical isolation devices such as insulating joints, or flanges;

(4) for underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage;

(5) design considerations to ensure that tank foundations will maintain the load of a full tank, tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone, and tank systems will withstand the effects of frost heave; and

(6) any additional information that the commissioner determines is relevant to the tank system design.

B. to G. [Unchanged.]

Subp. 4. **Containment and detection of releases.** The following requirements apply to the containment and detection of releases from tanks:

A. In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this part must be provided, except as provided in item H:

(1) for new tank systems or components, before they are put into service;

(2) for an existing tank system that on the effective date of this item is less then ten years old, within five years of the effective date of this item;

(3) for an existing tank system that on the effective date of this item is ten or more years old but less than 15 years old, by the date the tank system is 15 years old

or by January 12, 1989, whichever is later;

(4) for an existing tank system that on the effective date of this item is 15 or more years old, by January 12, 1989;

(5) for an existing tank system for which the age cannot be documented, the tank system must be treated as if it is 15 years old as specified in subitem (4); however, if the owner or operator demonstrates that the age of the tank system does not exceed 15 years, the tank system shall be treated as specified in subitem (2) or (3), as applicable;

(6) for a tank system that stores or treats a material that is not a hazardous waste on the effective date of this item, but which later becomes subject to regulation as a hazardous waste, within two years of the date the material becomes subject to regulation as a hazardous waste; and

(7) for an existing tank system used to store or treat hazardous wastes F020, F021, F022, F023, F026, F027, and F028, listed under part 7045.0135, subpart 2, by January 12, 1989.

B. to H. [Unchanged.]

Subp. 5. to 8. [Unchanged.]

Subp. 9. **Closure and post-closure care.** The requirements for closure and post-closure care of tank systems are as follows:

A. At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components, such as liners, contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless it can be demonstrated that they are not a hazardous waste. Metal tanks and tank system components that have been decontaminated in accordance with an approved closure plan prepared in accordance with part 7045.0486, subpart 3, or 7045.0594, subpart 3, must be considered scrap metal for purposes of part 7045.0125, subpart 4, and if recycled, are not subject to parts 7045.0205 to 7045.0685. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must

meet all of the requirements of parts 7045.0486 to 7045.0524.

B. and C. [Unchanged.]

Subp. 10. and 11. [Unchanged.]

7045.0628 TANKS.

Subpart 1. and 2. [Unchanged.]

Subp. 3. **Design and installation of new tank systems or components.**

A. Owners or operators of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls, if applicable, are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator must obtain a written assessment reviewed and certified by an independent, qualified, registered professional engineer, attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. Owners or operators of new tank systems that were required to conduct this assessment by Code of Federal Regulations, title 40, section 265.192(a), must conduct and keep this assessment on file as required by that regulation. Owners and operators of other new tank systems shall conduct this assessment within six months of the effective date of this item and keep it on file at the facility. The certification must include the statements in parts 7001.0070 and 7001.0540. This assessment must include the following information:

(1) design standards according to which the tank and ancillary equipment is or will be constructed;

(2) hazardous characteristics of the waste to be handled;

(3) for new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of the

factors affecting the potential for corrosion, including soil moisture content, soil pH, soil sulfides level, soil resistivity, structure to soil potential, influence of nearby underground metal structures such as piping, stray electric current, and existing corrosion-protection measures such as coating and cathodic protection. The determination must also address 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 protection must consist of corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; corrosion-resistant coating, such as epoxy or fiberglass, with cathodic protection such as impressed current or sacrificial anodes; and electrical isolation devices such as insulating joints or flanges;

(4) for underground tank system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage;

(5) design considerations to ensure that tank foundations will maintain the load of a full tank, tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone, and tank systems will withstand the effects of frost heave; and

(6) any additional information that the commissioner determines is relevant to the tank system design.

B. to G. [Unchanged.]

Subp. 4. **Containment and detection of releases.**

A. In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this part must be provided, except as provided in item H:

(1) for new tank systems or components, before being put into service;

(2) for an existing tank system that on the effective date of this item is less than ten years old, within

five years of the effective date of this item;

(3) for an existing tank system that on the effective date of this item is ten or more years old but less than 15 years old, by the date the tank system is 15 years old or by January 12, 1989, whichever is later;

(4) for an existing tank system that on the effective date of this item is 15 or more years old, by January 12, 1989;

(5) for an existing tank system for which the age cannot be documented, the tank system must be treated as if it is 15 years old as specified in subitem (4); however, if the owner or operator demonstrates that the age of the tank system does not exceed 15 years, the tank system shall be treated as specified in subitem (2) or (3), as applicable;

(6) for a tank system that stores or treats a material that is not a hazardous waste on the effective date of this item, but which later becomes subject to regulation as a hazardous waste, within two years of the date the material becomes subject to regulation as a hazardous waste; and

(7) for an existing tank system used to store or treat hazardous wastes F020, F021, F022, F023, F026, F027, and F028, listed under part 7045.0135, subpart 2, by January 12, 1989.

B. to G. [Unchanged.]

H. Ancillary equipment must be provided with full secondary containment, such as trench, jacketing, or double-walled piping, that meets the requirements of items B and C, except for:

(1) aboveground piping, exclusive of 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, that are visually inspected for leaks on a daily basis; and

(4) pressurized aboveground piping systems with automatic shut-off devices, such as excess flow check valves, flow metering shutdown devices, and loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

Subp. 5. to 8. [Unchanged.]

Subp. 9. **Closure and post-closure care.** The requirements for closure and post-closure care of tank systems are as follows:

A. At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components such as liners, contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless it can be demonstrated that they are not a hazardous waste. Metal tanks and tank system components which have been decontaminated in accordance with an approved closure plan prepared in accordance with part 7045.0486, subpart 3, or 7045.0594, subpart 3, must be considered scrap metal for purposes of part 7045.0125, subpart 4, and if recycled, are not subject to parts 7045.0205 to 7045.0685. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet the requirements of parts 7045.0594 to 7045.0624.

B. and C. [Unchanged.]

Subp. 10. to 12. [Unchanged.]