

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Hazardous Waste; Tanks

4

5 Rules as Adopted

6 7045.0020 DEFINITIONS.

7 Subpart 1. to 23. [Unchanged.]

8 Subp. 23a. Existing tank system or existing component.

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

25 Subp. 24. to 59. [Unchanged.]

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

1 regulation as required in this subpart.

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

3 7045.0075 PETITIONS.

4 Subpart 1. to 5. [Unchanged.]

5 Subp. 6. Petition for alternate design or operating
6 practices for secondary containment of tank systems. A person
7 may submit a petition to the commissioner for approval to use
8 alternate design or operating practices in lieu of the
9 requirements of parts 7045.0528, subpart 4, and 7045.0628,
10 subpart 4. The commissioner's decision shall be based on a
11 demonstration by the petitioner that the alternate design and
12 operating practices, together with location characteristics,
13 will prevent the migration of any hazardous wastes or hazardous
14 constituents into surface and ground water as effectively as the
15 secondary containment requirements of parts 7045.0528, subpart
16 4, and 7045.0628, subpart 4, during the active life of the tank
17 system.

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

20 (1) the nature and quantity of the wastes;

21 (2) the proposed alternate design and operating
22 practices;

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

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

29 B. to E. [Unchanged.]

30 Subp. 7. [Unchanged.]

31 7045.0528 TANKS.

32 Subpart 1. and 2. [Unchanged.]

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

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

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

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

27 (3) for new tank systems or components in which
28 the external shell of a metal tank or any external metal
29 component of the tank system will be in contact with the soil or
30 with water, a determination by a corrosion expert of the factors
31 affecting the potential for corrosion, including soil moisture
32 content, soil pH, soil sulfides level, soil resistivity,
33 structure to soil potential, influence of nearby underground
34 metal structures such as piping, existence of stray electric
35 current, and existing corrosion-protection measures such as
36 coating and cathodic protection. The determination must also

1 address the type and degree of external corrosion protection
2 that are needed to ensure the integrity of the tank system
3 during the use of the tank system or component. This protection
4 must consist of corrosion-resistant materials of construction
5 such as special alloys or fiberglass reinforced plastic;
6 corrosion-resistant coating, such as epoxy or fiberglass, with
7 cathodic protection such as impressed current or sacrificial
8 anodes; or electrical isolation devices such as insulating
9 joints, or flanges;

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

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

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

21 B. to G. [Unchanged.]

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

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

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

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

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

1 or by January 12, 1989, whichever is later;

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

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

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

16 (7) for an existing tank system used to store or
17 treat hazardous wastes F020, F021, F022, F023, F026, F027, and
18 F028, listed under part 7045.0135, subpart 2, by January 12,
19 1989.

20 B. to H. [Unchanged.]

21 Subp. 5. to 8. [Unchanged.]

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

24 A. At closure of a tank system, the owner or operator
25 must remove or decontaminate all waste residues, contaminated
26 containment system components, such as liners, contaminated
27 soils, and structures and equipment contaminated with waste, and
28 manage them as hazardous waste unless it can be demonstrated
29 that they are not a hazardous waste. Metal tanks and tank
30 system components that have been decontaminated in accordance
31 with an approved closure plan prepared in accordance with part
32 7045.0486, subpart 3, or 7045.0594, subpart 3, must be
33 considered scrap metal for purposes of part 7045.0125, subpart
34 4, and if recycled, are not subject to parts 7045.0205 to
35 7045.0685. The closure plan, closure activities, cost estimates
36 for closure, and financial responsibility for tank systems must

1 meet all of the requirements of parts 7045.0486 to 7045.0524.

2 B. and C. [Unchanged.]

3 Subp. 10. and 11. [Unchanged.]

4 7045.0628 TANKS.

5 Subpart 1. and 2. [Unchanged.]

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

8 A. Owners or operators of new tank systems or
9 components must ensure that the foundation, structural support,
10 seams, connections, and pressure controls, if applicable, are
11 adequately designed and that the tank system has sufficient
12 structural strength, compatibility with the waste to be stored
13 or treated, and corrosion protection so that it will not
14 collapse, rupture, or fail. The owner or operator must obtain a
15 written assessment reviewed and certified by an independent,
16 qualified, registered professional engineer, attesting that the
17 system has sufficient structural integrity and is acceptable for
18 the storing and treating of hazardous waste. Owners or
19 operators of new tank systems that were required to conduct this
20 assessment by Code of Federal Regulations, title 40, section
21 265.192(a), must conduct and keep this assessment on file as
22 required by that regulation. Owners and operators of other new
23 tank systems shall conduct this assessment within six months of
24 the effective date of this item and keep it on file at the
25 facility. The certification must include the statements in
26 parts 7001.0070 and 7001.0540. This assessment must include the
27 following information:

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

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

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

1 factors affecting the potential for corrosion, including soil
2 moisture content, soil pH, soil sulfides level, soil
3 resistivity, structure to soil potential, influence of nearby
4 underground metal structures such as piping, stray electric
5 current, and existing corrosion-protection measures such as
6 coating and cathodic protection. The determination must also
7 address the type and degree of external corrosion protection
8 that are needed to ensure the integrity of the tank system
9 during the use of the tank system or component. This protection
10 must consist of corrosion-resistant materials of construction
11 such as special alloys or fiberglass-reinforced plastic;
12 corrosion-resistant coating, such as epoxy or fiberglass, with
13 cathodic protection such as impressed current or sacrificial
14 anodes; and electrical isolation devices such as insulating
15 joints or flanges;

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

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

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

27 B. to G. [Unchanged.]

28 Subp. 4. Containment and detection of releases.

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

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

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

1 five years of the effective date of this item;

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

6 (4) for an existing tank system that on the
7 effective date of this item is 15 or more years old, by January
8 12, 1989;

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

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

20 (7) for an existing tank system used to store or
21 treat hazardous wastes F020, F021, F022, F023, F026, F027, and
22 F028, listed under part 7045.0135, subpart 2, by January 12,
23 1989.

24 B. to G. [Unchanged.]

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

29 (1) aboveground piping, exclusive of flanges,
30 joints, valves, and other connections, that are visually
31 inspected for leaks on a daily basis;

32 (2) welded flanges, welded joints, and welded
33 connections, that are visually inspected for leaks on a daily
34 basis;

35 (3) sealless or magnetic coupling pumps, that are
36 visually inspected for leaks on a daily basis; and

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

6 Subp. 5. to 8. [Unchanged.]

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

9 A. At closure of a tank system, the owner or operator
10 must remove or decontaminate all waste residues, contaminated
11 containment system components such as liners, contaminated
12 soils, and structures and equipment contaminated with waste, and
13 manage them as hazardous waste unless it can be demonstrated
14 that they are not a hazardous waste. Metal tanks and tank
15 system components which have been decontaminated in accordance
16 with an approved closure plan prepared in accordance with part
17 7045.0486, subpart 3, or 7045.0594, subpart 3, must be
18 considered scrap metal for purposes of part 7045.0125, subpart
19 4, and if recycled, are not subject to parts 7045.0205 to
20 7045.0685. The closure plan, closure activities, cost estimates
21 for closure, and financial responsibility for tank systems must
22 meet the requirements of parts 7045.0594 to 7045.0624.

23 B. and C. [Unchanged.]

24 Subp. 10. to 12. [Unchanged.]