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Title 22@ Social Security

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Division 4.5@ Environmental Health Standards for the Management of Hazardous Waste

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Chapter 14@ Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities

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Article 10@ Tank Systems

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Section 66264.191@ Assessment of Existing Tank System's Integrity

## **66264.191 Assessment of Existing Tank System's Integrity**

### **(a)**

Tanks shall have sufficient shell strength and, for closed tanks, pressure controls (e.g., vents) to assure that they do not collapse or rupture. The Department will review the design of the tanks, including the foundation, structural support, seams and pressure controls and seismic considerations. The Department shall require that a minimum shell thickness be maintained at all times to ensure sufficient shell strength. Factors to be considered in establishing minimum thickness include the width, height and materials of construction of the tank, and the specific gravity of the waste which will be placed in the tank. In reviewing the design of the tank and approving a minimum thickness, the Department shall rely upon appropriate industrial design standards and other available information.

### **(b)**

For each existing tank system that does not have secondary containment meeting the requirements of section 66264.193, the owner or operator shall determine that the tank system is not leaking or is unfit for use. Except as provided in subsections (d) and (g) of this section, and in addition to the requirements of subsection (f) of this section, the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified professional engineer, registered in California, in accordance with section 66270.11(d), that attests to the tank system's integrity.

**(c)**

This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred, stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following: (1) design standard(s), if available, according to which the tank and ancillary equipment were constructed; (2) hazardous characteristics of the waste(s) that have been and will be handled; (3) existing corrosion protection measures; (4) documented age of the tank system, if available (otherwise, an estimate of the age); (5) results of a leak test, internal inspection, or other tank integrity examination such that: (A) for non-enterable underground tanks, the assessment shall include 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, and (B) for other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified, professional engineer, registered in California, in accordance with section 66270.11(d), that addresses cracks, leaks, corrosion, and erosion; and (6) those design requirements and factors listed in subsection (a) of this section.

**(1)**

design standard(s), if available, according to which the tank and ancillary equipment were constructed;

**(2)**

hazardous characteristics of the waste(s) that have been and will be handled;

**(3)**

existing corrosion protection measures;

**(4)**

documented age of the tank system, if available (otherwise, an estimate of the age);

**(5)**

results of a leak test, internal inspection, or other tank integrity examination such that:

(A) for non-enterable underground tanks, the assessment shall include 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, and (B) for other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified, professional engineer, registered in California, in accordance with section 66270.11(d), that addresses cracks, leaks, corrosion, and erosion; and

**(A)**

for non-enterable underground tanks, the assessment shall include 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, and

**(B)**

for other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified, professional engineer, registered in California, in accordance with section 66270.11(d), that addresses cracks, leaks, corrosion, and erosion; and

**(6)**

those design requirements and factors listed in subsection (a) of this section.

**(d)**

For tank systems that transfer, store or treat materials that become hazardous

wastes this assessment shall be conducted within 12 months after the date that the waste becomes a hazardous waste, except as provided in subsection (g) of this section.

**(e)**

If, as a result of the assessment conducted in accordance with subsection (b) or (g) of this section, a tank system is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of section 66264.196.

**(f)**

Owners or operators of all existing tank systems shall submit to the Department with Part B of the application for a hazardous waste facility permit, a written statement, signed by an independent, qualified professional engineer, registered in California, in accordance with section 66270.11(d), attesting that the tanks and containment system are suitably designed to achieve the requirements of this article.

**(g)**

(1) Notwithstanding subsections (b) through (d) of this section, for each existing tank system that does not have secondary containment meeting the requirements of section 66264.193 and which meets the criteria specified in subsection (g)(2) of this section, the assessment specified in subsection (i) of this section shall be conducted by January 24, 1998. This assessment shall be reviewed and certified by an independent, qualified, professional engineer, registered in California, in accordance with section 66270.11(d), that attests to the tank system's integrity. The assessment shall be kept on file at the facility until closure of the facility and shall be valid for a period of one year from the date the assessment was certified.

(2) The provisions of subsection (g)(1) of this section apply only to: (A) onground or aboveground tank systems containing only non-RCRA hazardous wastes

generated onsite, and tank systems authorized under Permit-by-Rule pursuant to Chapter 45 of this division, Conditional Authorization pursuant to HSC 25200.3, and Conditional Exemption pursuant to HSC 25201.5, and (B) onground or aboveground tank systems containing RCRA hazardous wastes generated onsite, if: 1. the owner or operator is a very small quantity generator as defined in section 66260.10 of this division, or a small quantity generator as defined in section 66260.10 of this division, or 2. the owner or operator is not subject to regulation in 40 CFR part 264 pursuant to an exemption in 40 CFR section 264.1, but the owner or operator is subject to the standards of this article.

**(1)**

Notwithstanding subsections (b) through (d) of this section, for each existing tank system that does not have secondary containment meeting the requirements of section 66264.193 and which meets the criteria specified in subsection (g)(2) of this section, the assessment specified in subsection (i) of this section shall be conducted by January 24, 1998. This assessment shall be reviewed and certified by an independent, qualified, professional engineer, registered in California, in accordance with section 66270.11(d), that attests to the tank system's integrity. The assessment shall be kept on file at the facility until closure of the facility and shall be valid for a period of one year from the date the assessment was certified.

**(2)**

The provisions of subsection (g)(1) of this section apply only to: (A) onground or aboveground tank systems containing only non-RCRA hazardous wastes generated onsite, and tank systems authorized under Permit-by-Rule pursuant to Chapter 45 of this division, Conditional Authorization pursuant to HSC 25200.3, and Conditional Exemption pursuant to HSC 25201.5, and (B) onground or aboveground tank systems containing RCRA hazardous wastes generated onsite, if: 1. the owner or operator is a

very small quantity generator as defined in section 66260.10 of this division, or a small quantity generator as defined in section 66260.10 of this division, or 2. the owner or operator is not subject to regulation in 40 CFR part 264 pursuant to an exemption in 40 CFR section 264.1, but the owner or operator is subject to the standards of this article.

**(A)**

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**(B)**

onground or aboveground tank systems containing RCRA hazardous wastes generated onsite, if: 1. the owner or operator is a very small quantity generator as defined in section 66260.10 of this division, or a small quantity generator as defined in section 66260.10 of this division, or 2. the owner or operator is not subject to regulation in 40 CFR part 264 pursuant to an exemption in 40 CFR section 264.1, but the owner or operator is subject to the standards of this article.

**1.**

the owner or operator is a very small quantity generator as defined in section 66260.10 of this division, or a small quantity generator as defined in section 66260.10 of this division, or

**2.**

the owner or operator is not subject to regulation in 40 CFR part 264 pursuant to an exemption in 40 CFR section 264.1, but the owner or operator is subject to the standards of this article.

**(h)**

A generator or owner or operator authorized pursuant to Permit-by-Rule pursuant to Chapter 45 of this division, Conditional Authorization pursuant to HSC 25200.3,

or Conditional Exemption pursuant to HSC 25201.5, operating a non-RCRA underground tank system or an underground tank system otherwise exempt from permitting requirements pursuant to the federal act, shall comply with the applicable standards of Title 23 of the California Code of Regulations relating to underground tank systems.

**(i)**

The tank system assessment shall include all of the following information: (1) tank configuration (i.e., horizontal, vertical), and gross capacity (in gallons); (2) design standard(s), if available, according to which the tank and ancillary equipment were constructed, and all of the following information: (A) material of construction; (B) material thickness and the method used to determine the thickness; (C) description of tank system piping (material, diameter); (D) description of any internal and external pumps; and (E) sketch or drawing of tank including dimensions. (3) documented age of the tank system, if available, otherwise, an estimate of the age based on owner or operator knowledge; (4) description and evaluation of the adequacy of any leak detection equipment; (5) description and evaluation of any corrosion protection equipment; (6) description and evaluation of any spill prevention or overfill equipment; (7) hazardous characteristics of the waste(s) that have been or will be handled; (8) description of any structural damage or inadequate construction or installation such as cracks, punctures, or damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank system is certified for use. (9) results of a leak test, internal inspection, or other tank system integrity examination including the type of integrity examination performed (i.e., ultrasonic, internal examination, volumetric tank test, pipeline pressure test). Tank system integrity or leak test requirements must be in compliance with all local requirements. Prior

to conducting a tank system integrity test or leak test, contact local agency staff for local requirements. (10) estimated remaining service life of the tank system based on findings of subsection (i)(1) through (i)(9).

**(1)**

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**(2)**

design standard(s), if available, according to which the tank and ancillary equipment were constructed, and all of the following information: (A) material of construction; (B) material thickness and the method used to determine the thickness; (C) description of tank system piping (material, diameter); (D) description of any internal and external pumps; and (E) sketch or drawing of tank including dimensions.

**(A)**

material of construction;

**(B)**

material thickness and the method used to determine the thickness;

**(C)**

description of tank system piping (material, diameter);

**(D)**

description of any internal and external pumps; and

**(E)**

sketch or drawing of tank including dimensions.

**(3)**

documented age of the tank system, if available, otherwise, an estimate of the age based on owner or operator knowledge;

**(4)**

description and evaluation of the adequacy of any leak detection equipment;



**(5)**

description and evaluation of any corrosion protection equipment;

**(6)**

description and evaluation of any spill prevention or overfill equipment;

**(7)**

hazardous characteristics of the waste(s) that have been or will be handled;

**(8)**

description of any structural damage or inadequate construction or installation such as cracks, punctures, or damaged fittings. All discrepancies shall be documented in the assessment and remedied before the tank system is certified for use.

**(9)**

results of a leak test, internal inspection, or other tank system integrity examination including the type of integrity examination performed (i.e., ultrasonic, internal examination, volumetric tank test, pipeline pressure test). Tank system integrity or leak test requirements must be in compliance with all local requirements. Prior to conducting a tank system integrity test or leak test, contact local agency staff for local requirements.

**(10)**

estimated remaining service life of the tank system based on findings of subsection (i)(1) through (i)(9).