

**New York State Department of Environmental Conservation**

Part 596 Hazardous Substance Bulk Storage Facility Registration

596.1 General

(a) Purpose.

The purpose of this Part is to regulate hazardous substances in order to protect the public health, safety and welfare, and the lands, waters, air and environment of the State.

(b) Applicability.

(1) This Part applies to a storage facility which has one or more of the following:

**(i) an aboveground tank system used to store hazardous substances which has a tank with a storage capacity of 185 gallons or greater;**

(ii) an underground tank system used to store hazardous substances which has a tank of any storage capacity; or

(iii) a container used to store 1,000 kilograms (2,200 lbs.) or more of a hazardous substance at the facility for a period of 90 consecutive days or more.

598.1 General

(a) Purpose.

This Part sets forth regulations for the handling and storage of hazardous substances to protect the public health, safety, welfare, and the environment of the State.

(b) Applicability.

This Part applies to facilities described under section 596.1(b) of this Title.

598.7 Aboveground tank systems—inspection.

(a) Daily inspections.

Beginning August 11, 1995, the owner or operator must visually inspect the aboveground tank system for spills and leaks each operating day. In addition, the owner or operator must check to ensure that drain valves are closed if not in use and there are no unpermitted discharges of contaminated water or hazardous substances.

(b) Annual inspections.

(1) Beginning August 11, 1995, the structure-to-electrolyte potential of cathodic protection systems used to protect the bottom of an on-ground tank and connecting underground pipes which are subject to corrosion must be inspected annually by a qualified technician. If the system fails to provide the necessary protection,

action must be taken in accordance with section 598.9(a)(2) of this Part.

(2) Beginning August 11, 1996, the owner or operator must conduct comprehensive annual inspections of the aboveground tank system. This inspection includes:

- (i) visually inspecting for cracks, areas of wear, corrosion, poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank insulation, malfunctioning equipment, safety interlocks, safety trips, automatic shutoffs, leak detection, and monitoring, warning or gauging equipment which may not be operating properly;
- (ii) visually inspecting dikes and other secondary containment systems for erosion, cracks, evidence of releases, excessive settlement and structural weaknesses;
- (iii) checking on the adequacy of exterior coatings, corrosion protection systems, exterior welds and rivets, foundations, spill control equipment, emergency response equipment and fire extinguishing equipment;
- (iv) visual checking equipment, structures and foundations for excessive wear or damage; and
- (v) reviewing compliance with this Part and Part 599 of this Title.

(c) Five-year inspections.

(1) By December 22, 1999, the owner or operator must inspect aboveground piping systems and all aboveground tanks. The inspection must be consistent with a consensus code, standard or practice and be developed by a nationally recognized association or independent testing laboratory and meet the specifications of this subdivision. Based on the inspection, an assessment and evaluation must be made of system tightness, structural soundness, corrosion, wear, foundation weakness and operability. Reinspection is required no later than every five years from the date of the initial inspection or regulatory deadline whichever occurs first, except as follows. If thinning of one millimeter per year or greater occurs on the pipe or tank walls, or the expected remaining useful life as determined by the above inspections is less than 10 years, then reinspection must be performed on the tank or pipe at one half of the remaining useful life.

(2) For aboveground ancillary equipment, the inspection must consist of the following:

- (i) examination of exposed piping, joints, welds and connections for misalignment and tightness. Insulated piping systems must have the covering removed if there is evidence of a leak such as damage or discoloration of the insulating material or the presence of free liquid. Representative flanged connections must be examined for gasket deterioration and misalignment;
- (ii) structural inspection of representative sections of pipes for thinning, galvanic corrosion, intergranular corrosion, stress corrosion cracking, crevice corrosion, pitting, and for evidence of coating failure and material incompatibility. Galvanic cells, such as may be created by the joining of dissimilar metals, and other sources of corrosion must be identified;
- (iii) a tightness test of any connecting underground pipes;
- (iv) inspection and assessment of all ancillary equipment such as gauges, pressure/vacuum safety valves, safety interlocks, flow valves and pumps for adequacy, operability, leakage, fouling, corrosion, scaling and wear. Relief valves must be tested for capacity or opening and reseating pressure and inspected to see if corrosion, fouling or scaling has occurred; and
- (v) an identification of system deficiencies which may result in a leak due to vibration, expansion, contraction, frost, settlement, shock or other causes.

**(3) For aboveground tanks with a capacity of 10,000 gallons or more, the inspection must be conducted under the direction of a qualified engineer.** The engineer must certify that the tank is structurally sound and is not subject to external or internal corrosion that may result in a release before the next inspection and re-certification. Where necessary, the inspection must be made of all accessible tank surfaces and include the following:

- (i) cleaning the tank and difficult-to-reach areas within the tank in accordance with a consensus code, standard or practice developed by a nationally recognized association or independent testing laboratory;
- (ii) removal, transportation and disposal of solid precipitates or accumulated sludge in compliance with all applicable State, Federal and local laws;
- (iii) inspecting the tank, both internally and externally, for structural soundness and testing of the welds and seams on the tank bottom for porosity and tightness. The inspector may use one or more of the following non-destructive testing methods: hydrostatic or vacuum test; a dye penetrant test; an ultrasonic test; a radiographic or X-ray test; a magnetic particle inspection; or any other equivalent test which determines whether the tank is structurally sound. This must include measurements of erosion and corrosion wear and assessments of galvanic corrosion, intergranular corrosion, stress corrosion cracking, device corrosion, pitting, cellular corrosion and inspection for material incompatibility;
- (iv) visual inspection of the internal surfaces of the tank and difficult-to-reach areas for corrosion or failure; and
- (v) inspection of internal and external liners, cladding and coatings for any signs of failure such as cracks, bubbles, blisters, peeling, curling or separation.

#### 598.8 Recordkeeping

##### (a) Recordkeeping.

Reports for each monthly, annual or five-year test or inspection required by sections 598.6 and 598.7 of this Part must be kept with the spill prevention report and must be maintained and made available to the department upon request. Records of annual inspections must be kept for five years. Reports of other inspections or tests must be kept for 10 years. No records are required for daily inspections.

##### (b) Reports.

All reports must include the following information:

- (1) facility registration number;
- (2) identification number for tank, piping or equipment tested or inspected;
- (3) date of test or inspection;
- (4) results of tests and inspections, including a report on the condition of piping, tank and ancillary equipment, expected life of service and need for repair;
- (5) test and inspection methods used;
- (6) certification by the engineer or technician that the test or inspection has been performed in a manner consistent with the requirements of this Part;
- (7) statement of engineer or technician's qualifications;
- (8) name of engineer or technician;

- (9) business address of engineer or technician; and
- (10) signature of engineer or technician.