

6 NYCRR PART 598

HANDLING AND STORAGE OF HAZARDOUS SUBSTANCES

(Statutory authority: Environmental Conservation Law sections 1-0101, 3-0301, 3-0303, 17-0301, 17-0303, 17-0501, 17-1743, 37-0101 through 37-0107, and 40-0101 through 40-0121)

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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.

(c) *Definitions.* The definitions found in section 596.1(c) of this Title apply to this Part.

(d) *Severability.* If any provision of this Part or its application to any person or circumstance is held to be invalid, the remainder of this Part and the application of that provision to other persons or circumstances shall not be affected.

(e) *Variances.*

(1) The department may, upon written request from any person subject to this Part, grant a variance from one or more specific provisions of this Part. An application for a variance must:

(i) identify the specific provisions of this Part from which a variance is sought;

(ii) demonstrate that compliance with the identified provisions would, on the basis of conditions unique to the person's particular situation, tend to impose a substantial economic, technological or safety burden on the person; and

(iii) demonstrate that the proposed activity will have no significant adverse impact on the public health, safety, welfare or the environment and will be consistent with the provisions of the ECL and the performance expected from application of this Part.

(2) The department may not grant any variance which would result in regulatory controls less stringent than those set forth in 40 CFR parts 280 and 281 (see subdivision (j) of this section).

(3) In granting any variance, the department may impose specific conditions necessary to assure that the activity will have no significant adverse impact on the public health, safety, welfare or the environment.

(f) *Confidentiality.* Any person submitting information to the department pursuant to this Part may, at the time of submission, request that the department exempt such information from disclosure under paragraph (d) of subdivision (2) of section 87 of the Public Officers Law. All requests under this section must be made in accordance with the provisions of section 616.7 of this Title and all determinations will be made pursuant to that section.

(g) *Enforcement.*

(1) Any person who violates any of the provisions of this Part, any directive by the department, or any order issued by the department, shall be liable for the civil, administrative and criminal penalties set forth in article 71 of the Environmental Conservation Law.

(2) Where a release of any hazardous substance has occurred, is suspected or appears probable, the department may direct the owner or operator to inspect any tank or associated equipment which might be the source of such release and to test for tightness and structural soundness. If the owner or operator fails to conduct such inspections and tests within ten days of notification of such an order, the department may do so. The reasonable expenses of conducting such inspections and tests incurred by the department shall be paid by the owner or operator.

(3) If the owner or operator fails to comply with these regulations, the owner or operator must when directed by the department, conduct a site assessment to determine if there is evidence of a release due to such noncompliance. This assessment must be conducted in accordance with the requirements of section 598.10(e) of this Part and the results submitted to the department within time frames to be determined by the department.

(h) *Tank systems subject to these regulations in the future.* Any existing tank system which becomes subject to these regulations in the future must comply with the requirements of this Part within the time frame specified or within two years of becoming subject to regulation, whichever is later. This might occur if a substance is added to the list of hazardous substances in Part 597 of this Title. Any new equipment must comply with this Part and Part 599 of this Title when installed.

(i) *Access to records and tank systems.* Any designated officer or employee of the department shall have the right of access as provided in section 596.1(e) of this Title.

(j) *References.* Citations used in this Part refer to the publications listed in this subdivision. These publications are available for inspection at the Department of Environmental Conservation, 625 Broadway, Albany, NY 12233-7020. Copies may be purchased directly from the publisher at the address shown.

(1) API 620 means American Petroleum Institute Specification 620, Recommended Rules for Design and Construction of Large, Welded, Low-Pressure Storage Tanks, June 1990, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

(2) API 650 means American Petroleum Institute Specification 650, Welded Steel Tanks for Oil Storage, 9th Edition, 1993, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

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(3) API 651 means American Petroleum Institute Specification 651, Cathodic Protection of Above-ground Petroleum Storage Tanks, 1991, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

(4) API 652 means American Petroleum Institute Specification 652, Lining of Aboveground Petroleum Storage Tank Bottoms, 1991, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

(5) API 1615 means American Petroleum Institute Specification 1615, Installation of Underground Petroleum Storage Systems, 1987, with 1989 supplement, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

(6) API 1632 means American Petroleum Institute Specification 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems, 1987, American Petroleum Institute Publishers, 1220 L Street NW, Washington, DC 20005.

(7) ASTM D2996-88 means American Society for Testing and Materials Designation D2996-88, Specification for Filament-Wound Reinforced Thermosetting Resin Pipe, 1988, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(8) ASTM D3299-88 means American Society for Testing and Materials Designation D3299-88, Filament-Wound Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks, 1988, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(9) ASTM D4021-92 means American Society for Testing and Materials Designation D4021-92, Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks, 1992, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(10) ASTM D4097-88 means American Society for Testing and Materials Designation D4097-88, Contact-Molded Glass-Fiber-Reinforced Thermoset Resin Chemical-Resistant Tanks, 1988, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

(11) CAN4-S601-M84 means Underwriters' Laboratories of Canada, No. CAN4-S601- M84, Standard for Shop Fabricated Steel Aboveground Horizontal Tanks for Flammable and Combustible Liquids, 1984, Underwriters' Laboratories of Canada, 7 Grouse Road, Scarborough, Ontario, Canada M1R3A9.

(12) CAN4-S630-M84 means Underwriters' Laboratories of Canada, No. CAN4-S630- M84, Standard for Shop Fabricated Steel Aboveground Vertical Tanks for Flammable and Combustible Liquids, 1984, Underwriters Laboratories of Canada, 7 Grouse Road, Scarborough, Ontario, Canada M1R3A9.

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(13) NACE Standard RP-01-69 means National Association of Corrosion Engineers, Recommended Practice--Control of External Corrosion on Underground or Submerged Metallic Piping Systems, RP-01-69, April 1992 Revision, National Association of Corrosion Engineers, Box 218340, Houston, TX 77218.

(14) NACE Standard RP-02-85 means National Association of Corrosion Engineers, Recommended Practice--Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems, 1985, National Association of Corrosion Engineers, Box 218340, Houston, TX 77218.

(15) NFPA No. 30 means National Fire Protection Association, Flammable and Combustible Liquids Code, No. 30, 1993, NFPA, Batterymarch Park, Quincy, MA 02269.

(16) NLPA 631 means National Leak Prevention Association, Spill Prevention, Minimum 10-Year Life Extension of Existing Steel Underground Storage Tanks by Lining Without the Addition of Cathodic Protection, 1991, NLPA P.O. Box 1643, Boise, ID 83701.

(17) SPC-SP #6 means Steel Structures Painting Council, Steel Structures Painting Manual, Chapter 2--Surface Preparation Specifications, Commercial Blast Cleaning, June 1991, Steel Structures Painting Council, 4400 Fifth Avenue, Pittsburgh, PA 15213.

(18) ULC-C107.7-1993 means Underwriters' Laboratories of Canada, No. ULC-C107, Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids, 1993, Underwriters' Laboratories of Canada, 7 Grouse Road, Scarborough, Ontario, Canada M1R3A9.

(19) ULC Standard S603 means Underwriters' Laboratories of Canada, No. ULC-S603-92, Standard for Steel Underground Tanks for Flammable and Combustible Liquids, 1992, Underwriters Laboratories of Canada, 7 Grouse Road, Scarborough, Ontario, Canada M1R3A9.

(20) ULC-S603.1 means Underwriters' Laboratories of Canada, No. ULC S603.1-M1982, Standard for Galvanic Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids, 1992, Underwriters Laboratories of Canada, 7 Grouse Road, Scarborough, Ontario, Canada M1R3A9.

(21) 40 CFR 280 means part 280 of title 40 of the Code of Federal Regulations, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST), July 1, 2012, Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(22) 40 CFR 281 means part 281 of title 40 of the Code of Federal Regulations, Approval of State Underground Storage Tank Programs, July 1, 2012, Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(23) 40 CFR 302.8 means section 8, part 302 of title 40 of the Code of Federal Regulations, Continuous Releases, July 1, 2012, Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(k) *Spill prevention report.*

(1) By August 11, 1996, the owner or operator of any facility must prepare and maintain a spill prevention report for preventing and responding to spills, releases and accidents at the facility. The report must be properly indexed, logically organized, and filed on the premises of the facility at all times. The report must be updated at least annually. If requested, the owner or operator must supply a copy of the report to the department. The comprehensiveness of the spill prevention report will be a function of the risks at the facility. At facilities with good operating histories, small quantities of low hazard substances in areas of minimal environmental risk, reports will contain basic information and assessments. Where facilities or risks are larger, the report will assess such risks and will be proportionately more complex.

(2) The spill prevention report must include the following:

(i) a copy of the registration application and certificate issued under section 596.2 of this Title;

(ii) management approval of the report evidenced by the signature of the principal executive officer or authorized representative;

(iii) an up-to-date facility site map of sufficient detail to locate and identify tank systems and transfer stations;

(iv) the name, signature, and license number of the professional engineer licensed in New York State or other qualified person who prepared the plan;

(v) a listing and summary description, for the past five years, of releases:

(a) required to be reported under State or Federal law; and

(b) which the facility can ascertain have occurred through an examination of existing books, records or other documentation. This must address the magnitude and impact of such releases and be updated to incorporate reports required under section 598.14 of this Title;

(vi) identification and assessment of causes of spills, leaks and releases at the facility;

(vii) status report on compliance with this Part and Parts 596 and 599 of this Title;

(viii) an appendix of those records (or index of records) which must be kept and made available to the department pursuant to requirements of this Part and Parts 596 and 599 of this Title;

(ix) evidence of financial responsibility if required by section 598.11 of this Part; and

(x) a plan for spill response, including: a prediction of the direction of flow or dispersion of a spill; a map showing areas impacted by a spill including sewers, drainage ditches, water supplies, wells, streams and populated areas; a list of equipment and materials to contain a spill; name and phone number for emergency contacts, coordinators, and clean-up contractors; spill reporting procedures; plans for annual drills and other information consistent with generally accepted spill prevention control and countermeasure practices.

(3) The spill prevention report must contain a discussion and assessment of any equivalent equipment, method or practice where allowed under this Part or Part 599 of this Title. The assessment must demonstrate through engineering, monitoring, data, tests or past experience that measures or practices are in-place at the facility which are equivalent or superior to the standards for protecting the environment set forth in this Part and Part 599 of this Title.

(4) Where the owner or operator is required to perform a site assessment pursuant to subdivision (g) of this section or section 598.10(e) of this Part, the spill prevention report must contain the site assessment and findings.

(1) *Use of equivalent technology.* Where specified in this Part, the department may approve the use of an equivalent technology, method or practice by any person subject to this Part. A request to use equivalent technology must:

(1) identify the applicable provision of this Part; and

(2) include documentation, including but not limited to data, plans, specifications and test results that demonstrate that the technology, method or practice desired to be used will protect the public health, safety and welfare and the environment in a manner which equals or exceeds the requirements of the applicable provision of this Part.

598.2 Preemption and approval of local laws or ordinances.

(a) *Preemption.* Except where the department has approved a local law or ordinance as provided below, any local law or ordinance which is inconsistent with any provision of this Part or of Parts 596, 597 or 599 of this Title is preempted.

(b) *Approval of local laws or ordinances.*

(1) The department may approve a local law or ordinance for a city with a population over one million or a county, when such city or county law or ordinance provides environmental protection equal to or greater than provisions of the Environmental Conservation Law, article 40, and the requirements of this Part and Parts 596, 597 and 599 of this Title.

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(2) The city or county through its chief executive officer must seek approval from the department in writing. The request must:

- (i) include a copy of the local law or ordinance;
- (ii) explain differences and inconsistencies between the local law and provisions of this Part, and Parts 596, 597 and 599 of this Title;
- (iii) identify proposed enforcement procedures, penalties and resources available to implement the local law or ordinance;
- (iv) identify local fees which would be levied;
- (v) contain a declaration of intent to administer and enforce the local law or ordinance; and
- (vi) contain a statement from the city or county attorney that the city or county has adequate legal authority to carry out the proposed local program. This statement should identify any sources of statutory authority other than the local bulk storage law relied upon.

(3) The department will review all requests and supporting documents and will prepare written findings and terms of approval, conditional approval, or disapproval.

(c) *Rescission of approved local laws or ordinances.* If the department determines that an approved city or county law or ordinance is not being properly administered or enforced, it will advise the chief executive officer of the county or city of its determination in writing. If appropriate actions are not taken to effectively administer and enforce the local law or ordinance in accordance with the department's determination, the department reserves the right to rescind approval and administer and enforce the program as part of the department's overall responsibility under this Part, and Parts 596, 597 and 599 of this Title.

598.3 Tank systems in flood plains.

Any tank system susceptible to inundation by water from any source must be adequately anchored to prevent flotation, collapse, or lateral movement that might be caused by hydrodynamic and hydrostatic loads, including the effect of buoyancy. Tanks must be designed, installed and maintained in accordance with operating standards set forth in NFPA No. 30, section 2-6.6 (see section 598.1[j] of this Part) and in accordance with State and local flood plain regulations. Dikes in flood plains must be designed and installed to withstand structural damage and overtopping by a 100 year flood. If tanks are ballasted with water during flood warning periods, tank valves and other openings must be closed and secured in a locked position in advance of the flood. Ballast water removed from the tank after the flood must not be discharged to the waters of the State unless such discharge is in conformance with the standards of Parts 701, 702, 703 and 750 to 758 of this Title, as applicable.

598.4 Hazardous substance transfers.

(a) *Responsibility for transfers.* The operator, when on the premises or when in control of a hazardous substance transfer, is responsible for transfer activities. If the operator is not on the premises and is not in control of a hazardous substance transfer, the carrier is responsible for transfer activities. The operator or carrier must employ practices for preventing transfer spills, overfills and releases.

(b) *Operating requirements.*

(1) Prior to the transfer and during the delivery, the operator or carrier must determine that the hazardous substance will be transferred to the proper tank, that the receiving tank has available capacity to receive the amount to be transferred and that all tank valving and flow control devices are in the appropriate position to accept delivery. Throughout the entire period of transfer and while the tank system is connected to the loading or unloading device, the operator or carrier must at all times supervise, monitor and control the transfer to prevent overfilling and spilling. The operator or carrier must be trained in the proper transfer procedures, must monitor and control the delivery and must take immediate action to stop the flow when the working capacity of the tank has been reached or should an equipment failure or emergency occur. If a leak is discovered during the transfer, measures must be taken immediately to stop the leak and clean up the material which has been leaked.

(2) All couplings and other connections must be leak free, undamaged and fully functional prior to the transfer and must be checked for leakage after the transfer has been initiated.

(3) Brakes must be set and wheels chocked on all tank cars being loaded or unloaded.

(4) When a truck, rail car, or container is connected to a transfer line, caution signs must be in place to give warning to persons approaching from any anticipated direction. Signs must remain in place until operations are completed, all connections are removed, and outlets properly closed.

(5) During the transfer of a hazardous substance with a flash point below 100 degrees Fahrenheit (37.8 degrees Centigrade) or wherever flammable vapors may be present, all potential ignition sources must be controlled. Sources of ignition include, but are not limited to, open flames, lightning, smoking, cutting and welding, hot surfaces, friction, heat, sparks from static, electrical or mechanical sources, spontaneous ignition, chemical and physical-chemical reactions and radiant heat.

(6) Connections to a container at a transfer station must be sufficiently flexible so that any movement will not damage the connection or cause a leak. Examples of flexible connections include hoses and swing arms.

(7) By August 11, 1996, equipment or practices must be in-place which prevent the mixing of incompatible substances. This must include either mating of couplings to prevent

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mixing, written site procedures which prevent delivery of a substance to the wrong tank and which prohibit transfer of incompatible substances at the same time within the same transfer station, or equivalent practices. Any written procedures developed, pursuant to this subdivision must be specified in the spill prevention report required by section 598.1(k) of this Part.

(8) By August 11, 1996, all fill and dispensing ports for aboveground tanks which are remote from the tank must be labeled with the chemical name or common name or category of substance and must display legible and clearly visible hazard warnings. In addition, fill ports must contain information on the point of delivery. For a registered tank system, this would be the tank identification number. Valves and controllers which govern the filling and emptying of a tank system must contain information on closed and open positions.

598.5 Upgrading tank systems.

(a) *Upgrading underground tanks and piping.* By December 22, 1998, all existing underground tanks and on-ground and underground piping must meet the standards for new construction found in sections 599.3 through 599.5, inclusive, and 599.12 through 599.18, inclusive, of this Title or be closed in accordance with section 598.10(c) of this Part.

(b) *Upgrading aboveground tanks and pipes.*

(1) By December 22, 1999, all aboveground tanks must be upgraded to comply with sections 599.8(a) through (e) and (h); 599.17(a), (b)(1)(i) and (iii), (b)(2); and 599.18 of this Title.

(2) By December 22, 1999, all aboveground piping must be upgraded in accordance with piping standards set forth in sections 599.13(a) and (b) of this Title.

(c) *Secondary containment systems for aboveground tank systems.*

(1) By December 22, 1999, all aboveground tank systems which are used to store a hazardous substance must be equipped with a secondary containment system in accordance with section 599.9 of this Title. This requirement does not apply to piping except as required in subdivision (a) of this section. If the stored substance is a liquid at storage conditions and a gas at ambient conditions, then secondary containment must be provided to contain the liquid component of any spill until the phase change from liquid to gas occurs or the spill is cleaned up, whichever comes first.

(2) Where an alternative practice or structure provides equivalent protection, such practice or structure may be followed if it is no less protective of public health, safety and environment than section 599.9 of this Title and has been inspected by a qualified engineer and certified to be in conformance with section 599.9. The owner or operator must describe how the alternative differs from section 599.9, how it is equivalent or superior and how it meets the performance standards set forth therein. The use of equivalent technology must be approved pursuant to section 598.1(l) of this Part.

(d) *Secondary containment for transfer stations.*

(1) By December 22, 1999, all transfers of hazardous substances must occur at a transfer station equipped with spill containment in accordance with section 599.17(c) of this Title. If the stored substance is a liquid at storage conditions and a gas at ambient conditions, then secondary containment must be provided to contain the liquid component of any spill until the phase change from liquid to gas occurs or the spill is cleaned up, whichever comes first.

(2) Where an alternative practice or structure provides equivalent protection, such practice or structure may be followed if it is no less protective of public health, safety and the environment than section 599.17(c) of this Title and has been inspected by a qualified engineer and certified to be in conformance with section 599.17(c). The owner or operator must describe how the system differs from section 599.17(c), how the alternative is equivalent or superior and how it meets the performance standards set forth therein. The use of equivalent technology must be approved pursuant to section 598.1(l) of this Part.

(e) *Spill prevention at pumps and valves.* By December 22, 1999, the owner or operator must prevent spills and leaks at all pumps and valves which control a liquid hazardous substance by using one or more of the following methods:

(1) installation of sealless pumps and valves, fail-safe double seal pumps and valves or equivalent technology;

(2) implementation of a pump and valve maintenance and repair program. The frequency of inspection and scope of maintenance and repair must be based on a minimum of five years of actual operating and service records, manufacturer's recommendation or records for similar operations. The basis for the program, frequency of inspection, and scope of maintenance and repair must be identified in the spill prevention report; or

(3) installation of pumps and valves within a catchment basin such as a drip pan, pad or secondary containment system. The catchment basin must be designed and constructed with a permeability rate to the substance stored of 1×10^{-6} cm/sec or less and be compatible with the hazardous substance stored. If a catchment basin is used, it must be inspected each day of operation for accumulation of liquid and have capacity adequate to contain all spills likely to accumulate in the basin.

(f) *Upgrading existing storage of solids.* By December 22, 1999, hazardous substances which are water soluble solids at ambient temperature must be stored in containers which prevent entry of stormwater or in an area protected from entry of stormwater by a building or similar enclosure. The container including the floor, must be designed and constructed with a permeability rate to the substance stored of 1×10^{-6} cm/sec or less.

(g) *Upgrading container storage areas.*

(1) By December 22, 1999, containers must meet the following requirements:

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(i) incompatible substances stored in containers must not be stored in close proximity to each other. At minimum, they must be separated by either 30 feet; a fire wall with a fire resistant rating of not less than two hours; separate independent dikes; or other equivalent system which prevents inadvertent mixing and reduces the likelihood of an accident, release or spill;

(ii) an enclosure such as a warehouse or storm shelter must be provided for those containers which contain materials which could react with water to generate heat, cause pressure build-up in the container, or cause a fire, explosion or other adverse reaction. The enclosure must protect the containers from exposure to water, be designed to withstand storms and be anchored into the ground;

(iii) containers must be located in an area which has an impervious floor and a perimeter curb or ramp of sufficient height to contain 110 percent of the contents of the largest container or the total volume which can be spilled from interconnected containers within the containment area, whichever is greater. The floor must be designed and constructed with a permeability rate to the substance stored of 1×10^{-6} cm/sec or less; and

(iv) containers must be designed and manufactured in accordance with a consensus code, standard or practice developed by a nationally recognized association or independent testing laboratory and be suitable for the substance stored and the conditions of storage. This provision does not apply to containers which are represented, marked, certified or sold as qualified for use in the transportation of hazardous substances and which meet applicable Federal requirements; and

(v) containers must be stored in a stable position. If such containers are stacked, they must be stacked on a stable platform or pallet.

(2) Containers which are being transported or which are located at a staging area for a period of less than five days, and railcars and truck trailers at the site for 180 days or less are exempt from the storage requirements of paragraph (1) of this subdivision.

(3) Beginning August 11, 1996, containers must meet the following requirements:

(i) each container must be labeled to identify its contents; and

(ii) inventory records must be kept for all containers stored within a container storage area. Such records must include the number of containers and the contents of each.

598.6 Underground tank systems – testing and inspection.

(a) *Testing and inspections of ancillary equipment.* Beginning August 11, 1995, the owner or operator must inspect ancillary equipment as follows:

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(1) Monthly inspection must be made of vents, pressure relief devices, gauges, alarms, overfill prevention equipment, cathodic protection monitoring equipment, other monitoring equipment, warning alarms and safety systems. Equipment must be visually inspected for cleanliness, leakage, corrosion, and operability.

(2) Annual testing of automatic line leak detectors and cathodic systems, providing protection to tanks or pipes subject to corrosion, must be performed to ensure the equipment is operating properly. Cathodic protection systems must be checked by a qualified technician to ensure that adequate structure to electrolyte potential exists for corrosion protection. If any line leak detector or cathodic protection system fails to provide the necessary protection, action must be taken in accordance with section 598.9(a)(2) of this Part.

(b) *Leak detection for underground tanks.* Beginning August 11, 1995, the owner and operator must check underground tanks for leakage using one or more of the following:

(1) Inventory monitoring may be used if it detects a leak of one percent of flow-through plus 130 gallons on a monthly basis and is coupled with an annual tightness test. Inventory monitoring must be done in accordance with the standards set forth in 40 CFR section 280.43(a) (see section 598.1[j] of this Part).

(2) Weekly monitoring of the interstitial space of a double-walled tank may be practiced using pressure monitoring, vacuum monitoring, electronic monitoring or manual sampling.

(3) Vapor wells for monitoring soils in the excavation zone may be used. Vapor monitoring systems must be designed and installed by a qualified engineer or technician in accordance with generally accepted practices. Wells must be protected from traffic, permanently labeled as a "monitoring well" or "test well-no fill" and equipped with a locking cap, which must be locked when not in use so as to prevent unauthorized access and tampering. Vapor monitoring may be used only under the following conditions:

(i) soils in the excavation zone must be sufficiently porous to allow for the movement of the vapors from the tank to the vapor sensor. Gravel, coarse sand and crushed rock are examples of porous soils;

(ii) the stored substance or a tracer compound placed in the tank must be sufficiently volatile so as to be detectable by the vapor sensor;

(iii) vapor monitoring must not be hindered by groundwater, rainfall or soil moisture such that a leak could go undetected for more than 30 days;

(iv) background contamination must not mask or interfere with the detection of a release;

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(v) the system must be designed and operated to detect increases in vapors above background levels. Monitoring must be done at least once per week; and

(vi) the number and positioning of vapor monitoring wells must be sufficient to ensure detection of releases from any portion of the tank and must be based on a scientific study. Wells must be at least four inches in diameter.

(4) Groundwater monitoring wells designed and installed by a qualified engineer or technician may be used. Wells must be protected from traffic, permanently labeled as a "monitoring well" or "test well-no fill" and equipped with a locking cap which must be locked when not in use to prevent unauthorized access and tampering. Groundwater monitoring may be used only under the following conditions:

(i) the substance stored must be immiscible in water and have a specific gravity of less than one;

(ii) the groundwater table must be less than 20 feet from the ground surface. The hydraulic conductivity of the soil between the tank and well must not be less than one hundredth cm/sec. Gravel and coarse to medium sand are examples of such soil;

(iii) the slotted portion of the well casing must be designed to prevent migration of soils into the well and must allow entry of the hazardous substances into the well under both high and low groundwater conditions;

(iv) wells must be at least four inches in diameter and be sealed from the ground surface to the top of the filter pack to prevent surface water from entering the well;

(v) wells must be located within the excavation zone or as close to it as technically feasible;

(vi) the method of monitoring must be able to detect at least one eighth of an inch of free product on top of the groundwater. Monitoring must be done once per week; and

(vii) the number and positioning of the groundwater monitoring well(s) must be sufficient to ensure detection of releases from any portion of the tank and must be based on a scientific study.

(5) Automatic tank gauging equipment may be used if it can detect a leak of two tenths of a gallon per hour or larger with a probability of detection of 95 percent and probability of false alarm of five percent or less with a maximum threshold for declaring a leak of one tenth of a gallon in one hour. Monitoring must be done once per week.

(6) Other equivalent methods as approved by the department if the method can detect a leak of two tenths of a gallon per hour with a 95 percent probability of detection and probability of false alarm of five percent.

(c) *Leak detection in underground and on-ground piping.*

(1) Beginning August 11, 1995, the owner and operator must check underground and on-ground piping for leakage. The method to be used must be designed to detect a leak from any portion of the piping that routinely contains a hazardous substance and may include any method accepted for tanks under subdivision (b) of this section, except for paragraph (b)(5) of this section. Note exception for suction piping in paragraph (3) of this subdivision.

(2) If the underground piping is pressurized, then an automatic line leak detector which alerts the owner or operator to the presence of a leak must also be installed. The detector must be capable of restricting or shutting off flow or triggering an alarm. The line leak detector must also be capable of detecting a leak of three gallons per hour at 10 pounds per square inch line pressure within one hour with a probability of detection of 95 percent and probability of false alarm of five percent or less. An annual test of the operation of the leak detector must be conducted using procedures established by the manufacturer.

(3) Leak detection is not necessary for suction piping which meets all of the following conditions:

- (i) operates at less than atmospheric pressure;
- (ii) is sloped so that the contents of the pipe will drain back into the tank if the suction is released;
- (iii) has only one check valve in each line; and
- (iv) where the check valve is located directly below and as close as practical to the suction pump.

(d) *Inspection of lined tanks.* Within 10 years after a lining is affixed to an underground tank, the tank must be internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications. Reinspection must be performed every five years thereafter.

(e) *Criteria for tightness tests.*

(1) A tightness test is a test acceptable to the department which will determine if a tank and piping system is tight or not tight. This shall include:

- (i) a test capable of detecting a tank or pipe leak of one tenth gallons per hour (gph) with a probability of detection of 95 percent and probability of false alarm of five percent or less with a maximum threshold for declaring a leak of five hundredths of a gallon in one hour accounting for variables such as vapor pockets, thermal expansion and contraction of product, temperature stratification, groundwater level, evaporation, pressure and tank deformation;
- or

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(ii) a structural inspection performed in accordance with the requirements of section 598.7(d) of this Part.

(2) If it is technically impossible to perform a meaningful tightness test, then an alternative test or inspection which is acceptable to the department must be performed.

(f) *Qualification of technicians.* All tightness tests must be performed by a qualified technician who has an understanding of the variables which affect the test and is trained by the manufacturer or his representative in the performance of the test.

(g) *Uninspected facilities.* If, for any reason, testing or inspection is not performed as required in this section, the owner and operator must take the uninspected portion of the tank system out-of-service pursuant to the requirements of section 598.10 of this Part.

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:

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(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.

(d) *Uninspected facilities.* If any portion of a tank system is not inspected as required, the owner or operator must take the uninspected portion of the system out-of-service pursuant to the requirements of section 598.10 of this Part.

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;

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- (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.

598.9 Maintenance and repair of facilities.

(a) *Repairs.*

(1) Prompt action must be taken to prevent an imminent release. If any inspection shows that continuation of an operation or practice will result in a release or that the tank system, or any portion thereof, is inadequate or not tight, then the operation or practice must be modified or discontinued. The tank system, or any portion thereof, must be promptly replaced, repaired or taken out-of-service. Examples which may indicate that a release is imminent include, but are not limited to, leaking valves, pumps and pipe joints, malfunctioning pressure or vacuum relief devices, inadequate gauges, tightness test failures, excessive thinning of the tank shell which would indicate structural weakness when the tank is filled, and malfunctioning pressure or temperature gauges.

(2) If the tank system, or any portion thereof, or operation or practice is not in imminent danger of causing a release but an inspection shows that is malfunctioning, or is in disrepair and that a leak or release is likely or probable unless action is taken, then the operation or practice must be modified or discontinued, or the equipment must be repaired or replaced within 90 days, removed from service or temporarily closed. Examples of such equipment disrepair include, but are not limited to, secondary containment dikes with erosion or rodent damage, transfer station pads with cracks, deficiencies in coatings for preventing corrosion caused by exposure to the environment, malfunctioning leak monitoring equipment, and cathodic protection systems which fail to provide the necessary electric current to prevent corrosion.

(b) *Tank linings.*

- (1) Tank linings must be compatible with the substance stored.
- (2) Tanks may be lined in accordance with API 652, NLP 631 (see section 598.1[j] of this Part) or in accordance with an equivalent consensus code, standard or practice developed by a nationally recognized association or independent testing laboratory. Linings of

carbon steel tanks must be applied no later than eight hours after abrasive blasting and cleaning of the internal surface or in accordance with a consensus code, practice or standard developed by a nationally recognized association or independent testing laboratory. Visible rust, moisture or foreign matter must not be present.

(3) All linings must be of sufficient thickness, density and strength to form an impermeable shell which will not crack, soften, flake or separate from interior surfaces. The coating must maintain a permanent bond to the equipment.

(4) The lining's coefficient of thermal expansion must be compatible with the equipment to which it is applied so that stress due to temperature changes will not be detrimental to the soundness of the lining.

(5) The lining material must be applied and cured in strict accordance with the manufacturer's specifications.

(6) The lining must be checked for blisters and air pockets and electrically tested for pinholes. The thickness of the lining must be checked with an Elcometer Thickness Gauge or equivalent method and the hardness checked with a Barcol Hardness Tester or equivalent method to assure compliance with manufacturer's specifications. Any defects must be repaired.

(7) The date of installation of the lining, condition of the tank, installation methods and other pertinent information must be kept in the spill prevention report for the lifetime of the tank system.

(c) *Corrosion protection for tank systems.* By December 22, 1999, the exposed exterior surfaces of all aboveground systems must be protected from corrosion. Protection must be provided by using one or a combination of the following methods:

(1) corrosion resistant equipment materials such as stainless steel or Monel;

(2) non-metallic cladding, coal tar based epoxy coating or similar coating with a minimum finish thickness of 10 mils (0.01 inches);

(3) paints, consisting of an inhibitive primer coat, intermediate inhibitive and two or more final coats applied to a properly prepared surface or an equivalent or better surface coating as further specified in sections 599.8(f) and 599.13(c) of this Title; or

(4) an equivalent or better surface coating or corrosion protection system designed and installed in accordance with a consensus code, standard or practice of a nationally recognized association or independent testing laboratory.

(d) *Replacement of rupture disks.* All rupture disks must be replaced with new ones at least every three years, or in accordance with any other frequency recommended by the disk manufacturer, or justified on the basis of operating experience in the spill prevention report.

(e) *Vegetation.* No vegetation except grass shall be allowed to grow within secondary containment systems. Any grass within the secondary containment system must be trimmed to no longer than six inches. No accumulation of dead vegetation which could endanger the tank, if ignited, is allowed within the secondary containment system.

(f) *Inspection of repaired equipment.* All repaired equipment must be inspected for tightness and soundness before it is returned to service.

598.10 Closure and change-in-service.

(a) *Change-in-service.*

(1) If the substance stored within a tank system is switched to a hazardous substance or from one hazardous substance to another, then the tank system must be evaluated by a qualified engineer to determine that materials are compatible, pressure and vacuum relief systems are adequate and that the tank system is properly designed and suitable for the change-in-service.

(2) Before any underground tank system is converted from storing a hazardous to a non-hazardous substance, a site assessment must be performed pursuant to subdivision (e) of this section.

(b) *Closure of tank systems that are temporarily out-of-service.*

(1) Aboveground and underground tank systems that are temporarily out-of-service for 30 or more days must be closed as follows:

(i) All hazardous substances must be removed from the tank system to the lowest drawoff point. Any hazardous waste that is removed from the tank system must be disposed of in accordance with all applicable State, local and Federal requirements. Tanks must be protected from floatation in accordance with generally accepted engineering practices.

(ii) All manways must be locked or bolted securely and fill lines, gauge openings or pump lines must be capped, locked out or plugged to prevent unauthorized use or practices.

(2) Tank systems which are temporarily out-of-service are subject to registration, leak detection and reporting requirements of Parts 596 and 598 of this Title. Tank systems that are out-of-service for more than one year must be inspected or tested and determined to be structurally sound and tight before being returned to service.

(3) Underground tank systems that are temporarily out-of-service for more than one year must be permanently closed if the tank system has not been protected from corrosion as

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required in sections 599.3(d) and 599.8(d) of this Title. The department may grant a time extension based on the findings of a site assessment performed by the owner or operator.

(c) Closure of tank systems that are permanently out-of-service.

(1) Any aboveground or underground tank system that is permanently out-of-service may be used to store a substance which is not a hazardous substance as defined in Part 597 of this Title or must be closed as follows:

(i) liquid and sludge must be removed from the tank system. Any hazardous waste that is removed must be transported and disposed of in accordance with all applicable State, local and Federal requirements;

(ii) the tank must be cleaned and rendered free of hazardous vapors. Provisions must be made for natural breathing of the tank to ensure that the tank remains free of hazardous vapors;

(iii) all piping must be disconnected and removed or securely capped, or locked out or plugged. Manways must be securely fastened in place;

(iv) aboveground tanks must be stenciled with the date of permanent closure;

(v) underground tanks must be removed unless it will be detrimental to a building foundation or other structure. Underground tanks that are abandoned in-place must be filled with a solid inert material (such as sand, concrete slurry, synthetic filler or cellular concrete). If an inert material is used, all voids within the tank must be filled;

(vi) all tanks must be protected from floatation caused by flooding or high ground water level in accordance with generally accepted engineering practices; and

(vii) secondary containment systems of permanently closed aboveground tank systems must have drainage for accumulated water or precipitation.

(2) If the tank system is to be used to store a substance not defined as a hazardous substance, the owner or operator must empty and clean the tank system prior to storing the new substance.

(3) Tank systems which have not been closed pursuant to paragraph (1) or (2) of this subdivision, are subject to all requirements of this Part[, Parts 595] and Part 596 of this Title including, but not limited to, upgrading, periodic tightness testing, inspection, registration and reporting requirements.

(4) If a tank is to be disposed of as junk, it must be retested for hazardous vapors, rendered vapor free if necessary, cleaned of any residuals or sludge and punched with holes or otherwise made unfit for storage.

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(d) *Closure of tank systems abandoned prior to August 11, 1994.* All tanks taken out-of-service, but still in or on the ground, prior to August 11, 1994 must be closed in accordance with the requirements of subdivision (b) or (c) of this section.

(e) *Site assessment for permanent closure.*

(1) The owner or operator must perform a site assessment at the time of permanent closure of any underground tank system. A site assessment may be required of any such tank system that is permanently closed prior to August 11, 1994 if, in the judgment of the department, the tank poses a current or potential threat to human health or the environment. The site assessment must include soil, vapor, or groundwater monitoring in sufficient depth to determine if environmental contamination exists in the vicinity of the tank site.

(2) The type of monitoring and number and location of samples must be based on geology, water table contours, aquifer thickness, porosity, background water quality and the substance known or suspected to have been stored at the facility.

(3) If contaminated soil, vapor, groundwater or free product is discovered, the owner and operator must comply with the corrective action requirements of section 598.14 of this Title.

(4) The site assessment report must be prepared by a qualified engineer or technician. Records of the date of closure and the report must be incorporated or referenced in the spill prevention report and maintained for the life of the facility.

(f) *Reporting of out-of-service tank systems.* The owner of a tank system which is to be permanently closed must notify the department pursuant to the requirements of section 596.2(f) of this Title.

598.11 Financial responsibility.

Upon request by the department, an owner and operator must provide evidence of financial responsibility for corrective action and for operating, maintaining or closing tanks pursuant to this Part and Parts 596 and 599 of this Title. Financial responsibility may be evidenced by one or a combination of insurance, guarantee, surety bond, letter of credit, qualification as a self-insurer or other evidence acceptable to the department.

598.12 Operator Training.

(a) *General requirements for all underground tank systems.* Not later than October 11, 2016, every facility must ensure that it has designated Class A, Class B, and Class C operators who meet the requirements of this section.

(b) *Designation of operators.* Every facility must designate:

(1) one Class A and one Class B operator for each underground tank system or group of underground tank systems (the same individual may be designated as both); and

(2) one or more Class C operators for each underground tank system or group of underground tank systems.

(c) *Requirements for operator testing.* Every facility must ensure Class A, Class B, and Class C operators meet the requirements of this section. Any individual designated for more than one operator class must pass the required exam for each operator class in which the individual is designated.

(1) Class A operators. Each designated Class A operator must pass an exam acceptable to the Department that measures knowledge of the purpose, methods, and function of the requirements of this Part and Part 599 of this Title concerning:

- (i) spill and overfill prevention;
- (ii) leak detection;
- (iii) corrosion protection;
- (iv) emergency response;
- (v) compatibility;
- (vi) financial responsibility;
- (vii) registration;
- (viii) temporary and permanent closure;
- (ix) recordkeeping;
- (x) environmental and regulatory consequences of releases; and
- (xi) knowledge and training requirements for Class B and Class C operators, respectively.

(2) Class B operators. Each designated Class B operator must pass an exam acceptable to the Department that measures knowledge of the purpose, methods, and function of the requirements of this Part and Part 599 of this Title concerning:

- (i) operation and maintenance;

- (ii) spill and overflow prevention;
- (iii) leak detection and related reporting;
- (iv) corrosion protection and related testing;
- (v) emergency response;
- (vi) compatibility;
- (vii) recordkeeping;
- (viii) environmental and regulatory consequences of releases; and
- (ix) training requirements for Class C operators.

(3) Class C operators. Each designated Class C operator must be trained and tested under the direction of the Class A or Class B operator to take appropriate actions at the facility in response to emergencies and alarms caused by spills or releases from the underground tank system.

(4) Class A and Class B operators who possess a current and valid operator training credential issued by any other state government, that administers an exam acceptable to the Department, will be considered to be in compliance with the requirements of this subdivision.

(d) *Timing of operator testing and training.*

(1) For a UST system installed on or before October 11, 2016, the facility must ensure that Class A, Class B, and Class C Operators are designated in accordance with subdivision (a), and meet the requirements of subdivision (c) of this section by October 11, 2016.

(2) Class A or Class B Operators designated after October 11, 2016 must meet the requirements of subdivision (c) of this section within 30 days after being designated.

(3) Class C operators designated after October 11, 2016 must be trained and tested before being designated.

(4) In the event that a Class A and/or Class B operator is no longer designated at a facility (due to separation from employment, death, or other circumstance), the facility must designate a new operator within 30 days after the event. The new operator must meet requirements in subdivision (c) of this section within 30 days after being designated.

(e) *Retesting.* Class A or Class B operators designated for underground tank systems that are determined by the Department to be in significant non-compliance must be retested in accordance with the requirements of subdivision (c) of this section. Any reliance on previously

obtained operator training credentials issued by another state will not be accepted by the Department. Class A or Class B operators must be retested within 30 days after the date the Department determines that a UST system is in significant non-compliance. Alternatively, the owner may designate a different Class A or Class B operator, as appropriate, for the underground tank systems determined by the Department to be in significant non-compliance.

(f) *Documentation.* Every facility must maintain a list of designated Class A, Class B, and Class C operators and maintain records (paper or electronic) verifying that training and testing, as applicable, have been successfully completed, as follows:

(1) The list must:

(i) identify all Class A, Class B, and Class C operators at the facility; and

(ii) include the name of the operator, the class of the operator, the date that the operator was designated, the date that the operator initially completed testing or training, and the date of any retesting.

(2) The records verifying successful completion of training and testing for Class A, Class B, and Class C operators must, at a minimum, identify the name of the operator and the date tested, as well as passing results. Owners and operators must maintain these records for as long as Class A, Class B, and Class C operators are designated plus an additional three years. Records of the exam or training must also, at a minimum, be signed by the examiner or trainer and list the printed name of the examiner or trainer and the name, address, and phone number of the employer of the examiner or trainer. Records of testing for Class A or Class B Operators must include those areas in which the Class A or Class B operator has been tested.

598.13 Delivery Prohibition.

(a) *Circumstances and process for imposing a delivery prohibition.*

(1) Tier 1 conditions.

(i) When the Department finds that a Tier 1 condition exists at a facility, the Department will affix a tag on the fill pipe of the relevant tank system.

(ii) At the time that it affixes a tag, the Department will provide to the facility operator, if one is present, a written notification of the imposition of the delivery prohibition that will include the finding of the relevant condition(s) at the facility. The Department will then send the written notification to the facility via certified mail to the correspondence address listed in the current facility registration or license within five business days following the time that the tag is affixed to the tank system.

(iii) The following are Tier 1 conditions:

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(a) A tank system is known to be releasing a hazardous substance. If the source of the release cannot be determined upon inspection, then all tank systems at the facility that are probable sources of the release will be tagged.

(b) An underground tank system does not have one or more of the following:

(1) secondary containment equipment required under sections 599.4 and 599.14 of this Title;

(2) spill and overfill prevention equipment required under section 599.17 of this Title;

(3) corrosion protection equipment required under sections 599.3(d), or 599.13(b) of this Title; or

(4) leak detection equipment required under sections 599.5 or 599.15 of this Title.

(2) Tier 2 conditions.

(i) When the Department finds that a Tier 2 condition exists at a facility, the Department may affix a tag on the fill pipe of the relevant tank system.

(ii) Prior to affixing a tag, the Department will send a written statement to the facility informing the facility of the relevant condition(s). The Department will send the statement via certified mail to the correspondence address listed in the current facility registration.

(iii) At the time that it affixes a tag, the Department will provide to the facility operator, if one is present, a written notification of the imposition of the delivery prohibition that will include the finding of the relevant condition(s) at the facility. The Department will then send the written notification to the facility via certified mail to the correspondence address listed in the current facility registration or license within five business days following the time that the tag is affixed to the tank system.

(iv) The following are Tier 2 conditions:

(a) The results of leak detection required by section 598.6(b) or (c) of this Part indicate that the tank system may be leaking a hazardous substance or would not contain a leak if one were to occur, unless the facility submits, within ten days after receipt of the Department's statement issued pursuant to section 598.13(a)(2)(ii) of this Part, acceptable documentation to the Department that demonstrates that the relevant tank system is not leaking or has been appropriately repaired.

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(b) With respect to the operation of an underground tank system, the facility has not demonstrated within 30 days following receipt of the Department's statement issued pursuant to section 598.13(a)(2)(ii) of this Part compliance with the following requirements:

- (1) hazardous substance transfer requirements under section 598.4 of this Part;
- (2) cathodic protection monitoring requirements under section 598.6(a) of this Part; or
- (3) leak detection operating requirements under section 598.6(b) or (c) of this Part.

(c) With respect to the operation of an aboveground tank system, one or more of the following is missing and the facility has not documented to the Department that the missing component has been put in place within 30 days after receipt of the Department's statement issued pursuant to section 598.13(a)(2)(ii) of this Part:

- (1) secondary containment equipment required under section 599.9 of this Title;
- (2) spill and overflow prevention equipment required under section 599.17(b) of this Title;
- (3) corrosion protection equipment required under section 599.8(d) of this Title; or
- (4) leak detection equipment required under section 599.10 of this Title.

(3) The Department may issue the written finding, consistent with sections 598.13(a)(1)(ii) or 598.13(a)(2)(iii) of this Part, that a Tier 1 or Tier 2 condition exists, but withhold the imposition of the delivery prohibition for a period that may not exceed 180 days, where there is no evidence that the tank system is leaking and imposing the delivery prohibition would jeopardize public health or safety.

(b) *Prohibitions.*

(1) Delivery prohibition. No person may deliver or cause the delivery of a hazardous substance to any tank system to which a tag is affixed. No person may accept a delivery of a hazardous substance to any tank system to which a tag is affixed.

(2) Tag tampering and removal prohibition. Unless authorized by the Department, no person may tamper with or remove a tag affixed to a tank system or cause such tampering or removal.

(c) *Notifications.*

(1) Notice of delivery prohibition to facility and carrier. The presence of a tag affixed to the fill pipe of a tank system constitutes notice of the delivery prohibition.

(2) Notification to carrier by facility. After the Department affixes a tag to the fill pipe of a tank system, the facility must, prior to the next scheduled delivery of hazardous substance, inform all carriers that normally deliver to the tank system that delivery is prohibited. The facility must retain a record of any correspondence regarding the delivery prohibition.

(d) *Termination of delivery prohibition.*

(1) A delivery prohibition may be terminated by the Department on its own initiative, or following the conclusion of review of compliance submissions or an expedited hearing.

(i) Department initiative. If the Department terminates a delivery prohibition on its own initiative, the Department will send a written notification to the facility confirming that the prohibition has been terminated. The Department will send the notification via certified mail to the correspondence address listed in the current facility registration or license.

(ii) Review of compliance submissions.

(a) A facility may, at any time, submit information to the Department demonstrating that the facility is in compliance or has corrected the condition(s) that prompted the Department to impose the prohibition.

(b) Upon submission of information to the Department, the Department will designate an individual to review submissions and provide a written decision as set forth below.

(c) The designated individual will provide a written decision to the facility within five business days after the Department receives the facility's submission. If the designated individual decides to deny termination of the delivery prohibition, the decision will set forth the reasons for the denial including a description of any deficiency in the information supplied by the facility.

(d) The decision of the designated individual will constitute a final agency determination subject to challenge under Article 78 of the Civil Practice Law and Rules.

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(e) The Department will retain the record generated during the staff review process for one year.

(iii) Expedited hearing.

(a) Not later than 15 days after a tag has been affixed to a tank fill port, the Department will provide the facility with an opportunity to present proof on the limited issue of whether the Department incorrectly determined that any Tier 1 or Tier 2 conditions existed at the facility. Notice of such hearing will be sent together with the written notification of any delivery prohibition issued pursuant to sections 598.13(a)(1)(ii) or (a)(2)(iii) of this Part.

(b) The Department will bear the burden of proof at the expedited hearing.

(c) The failure of the facility to appear at the time and place scheduled for the expedited hearing will constitute a waiver of the opportunity for an expedited hearing.

(d) The expedited hearing will be held before a Department hearing officer. The hearing officer will make a report to the Commissioner setting forth the appearances, the arguments presented at the hearing, findings of fact and conclusions of law, and a recommended determination for consideration by the Commissioner.

(e) The hearing officer may, to the extent practicable and without prejudice to the facility's right to have a timely expedited hearing, consolidate the expedited hearing regarding the existence of Tier 1 or 2 conditions with any hearing regarding the facility's violation of other provisions of the Environmental Conservation Law, or any order, rule, or regulation issued or promulgated thereunder.

(f) The hearing officer will have the powers and authority provided to a presiding officer under the State Administrative Procedure Act.

(g) The expedited hearing will be recorded. The hearing officer will cause a typed transcript of the record to be prepared for the Department's files, but will not wait for the preparation of this transcript before making a report to the Commissioner, if so requested by the facility or the Commissioner.

(h) The hearing officer will issue his or her report within 30 days after the close of the hearing, unless the parties agree to an extension of this time.

(2) Removal of a tag. Within two business days after a decision by the Department that all Tier 1 and Tier 2 conditions at a facility have been resolved, the Department will remove, or authorize the removal of, the tag.

598.14 Release Reporting, Investigation, Confirmation and Corrective Action.*(a) Reporting of releases.*

(1) The reporting requirements of this section apply to the following persons:

- (i) an owner or operator;
- (ii) any person in a contractual relationship with an owner or operator who inspects, tests or repairs any portion of a facility which is or was used for the storage of hazardous substances; and
- (iii) any employee, agent or representative of any of the persons listed in subparagraphs (i) or (ii) who has knowledge of a release.

(2) Any person required to report under paragraph (1) of this subdivision must report the release in accordance with section 597.4 of this Title.

(3) Notwithstanding the provisions of paragraph 1 of this subdivision, employees of an owner or operator may report releases pursuant to a facility-specific centralized reporting protocol, provided that such reporting protocol is in writing and has been incorporated into the facility's spill prevention report prepared pursuant to section 598.1(k) of this Part. Independent consultants and contractors are not considered to be employees of the facility for the purposes of this section.

(4) A person is not required to report a spill of a reportable quantity to secondary containment pursuant to paragraph (2) of this subdivision if all of the following conditions are met:

- (i) the secondary containment system meets the requirements of sections 599.9 and 599.17 of this Title;
- (ii) there is control over the spill or overfill, and it is completely contained within 24 hours;
- (iii) the total volume of the spill or overfill is recovered or accounted for, and;
- (iv) the spill will not result in any of the conditions listed in section 597.4(b)(1)(ii) of this Title.

However, in the event that such a spill or overfill is not completely contained within 24 hours after it occurs, or its total volume is not accounted for within that time, such spill or overfill must then be reported within 24 hours after its occurrence. If the secondary containment system does not prevent a reportable quantity of the hazardous substance from reaching the environment, the spill or overfill must be reported as soon as the substance reaches the environment.

(b) *Reporting of suspected or probable spills.*

(1) The owner or operator of a facility shall notify the Department of a suspected or probable release of a hazardous substance unless an investigation shows that a release has not occurred or does not need to be reported under subdivision (a) of this section. Reports must be made to the DEC hotline within 24 hours after discovery of any of the following conditions:

(i) test, sampling, or monitoring results from a release detection method that indicate a release may have occurred;

(ii) unusual operating conditions such as the erratic behavior of product dispensing equipment, the sudden loss of product from a tank system, an unexpected presence of water in a tank, or the physical presence of a hazardous substance or an unusual level of vapors on a site that are of unknown origin;

(iii) impacts in the surrounding area, such as evidence of hazardous substances or resulting vapors in soils, basements, sewer or utility lines, or nearby surface waters; or

(iv) any other conditions or indications of a suspected release.

(2) If within 24 hours after discovery of a suspected release it is confirmed that a release has not occurred, then such release is not required to be reported.

(c) *Emergency response.*

(1) In addition to the requirements of paragraph (2) of this subdivision, the owner or operator must take immediate action upon discovery of a release to protect human health, safety and the environment. Immediate actions which may be necessary include, but are not limited to, signaling alarms, mitigation of fire and safety hazards, contacting emergency response officials, evacuation of personnel from the site, isolation of the impact zone, preventing the migration of the release and stopping, plugging or containing the release. Corrective action as specified in subdivision (e) of this section must also be undertaken to clean up and remove the released material and restore the site to protect public health, safety or the environment.

(2) It is unlawful to continue operation of a tank system where a release is occurring. If the owner or operator cannot expeditiously and permanently stop the release or further releases cannot be prevented while repairs are being made, the tank system must be emptied and the contents promptly removed to a secure tank system.

(d) *Release or spill investigation and confirmation.*

(1) All actual, probable or suspected releases or spills requiring reporting must be immediately investigated to determine the quantity of the release or spill and the extent of contamination and any threat to public health, safety or the environment. The investigation shall

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be performed at a sufficient level of detail to determine immediate and long-term steps needed for corrective action and emergency response. The owner or operator must investigate the release by one or more of the following procedures:

- (i) a visual inspection to initiate immediate response;
- (ii) a physical investigation which may include sampling of the soil, air or water to determine on-site and off-site impacts, hydrogeologic and atmospheric investigations, mapping of contamination, and evaluation of potential impacts on plant life, wildlife, nearby water supplies and surrounding population;
- (iii) monitoring of the interstitial area between the tank and secondary system;
- (iv) an inspection to determine if the tank system is tight. This may include an internal inspection, testing for structural soundness, nondestructive testing, inspection/testing of ancillary equipment or tightness testing of the tank or piping;
- (v) a check of inventory records to detect discrepancies;
- (vi) monitoring of observation wells; or
- (vii) any other additional and further investigation which may be required by the department in order to adequately determine the cause of the release and to assess the impact of the release or spill on public health, safety and the environment.

(2) The results of the investigation must be submitted to the department within 14 days unless an alternative schedule is established by the department. Upon review of this information the department may require the collection, evaluation and submission of additional information and preparation of a response and corrective action plan.

(3) Where a release of any hazardous substance has occurred, is suspected or appears probable, the department may order the owner to inspect any tank system, location and/or associated equipment which might be the source of the actual, suspected or probable release and to test for tightness and structural soundness. If the owner fails to conduct such tests within 10 days of notification of such an order, the department may do so. The reasonable expenses of conducting such tests incurred by the department shall be paid by the owner.

(e) *Corrective action.*

(1) Upon completion of an investigation of an actual, probable or suspected release, the owner or operator must initiate corrective action and take other spill response actions as may be required by the department. This may include one or more of the following:

- (i) removal and proper disposal of contaminated soil;

(ii) removal and recovery of free floating and dissolved hazardous substances in ground and surface waters;

(iii) removal, venting, dispersing or recovery of vapors from the soil or air;

(iv) repair or replacement of leaking equipment;

(v) improvement of storage and handling practices;

(vi) improvements to secondary containment systems;

(vii) installation of temporary or permanent water supply systems;

(viii) relocation of residents;

(ix) development of a corrective action plan; and

(x) other actions which the department may require to remediate the site in order to protect the public health, safety or environment.

(2) The owner or operator must report to the department progress on implementing the response and corrective action plan in accordance with a schedule for reporting established by the department.

(3) The requirements of this subdivision do not apply to releases from underground tank systems:

(i) identified as solid waste management units at facilities subject to corrective action pursuant to ECL article 27, title 9; or

(ii) constituting hazardous waste at a site subject to a remedial program pursuant to ECL article 27, title 13.

(f) *Public participation.*

(1) For each confirmed release that requires a corrective action plan, the Department will provide an opportunity for public involvement by those members of the public directly affected by the release and the planned corrective action. This notice may include public notice in local newspapers, block advertisements, public service announcements, e-mail, publication in a state register, letters to individual households, or personal contacts by field staff.

(2) The Department will ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(3) Before approving a corrective action plan, the Department may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(4) The Department will provide public notice that complies with paragraph (1) of this subdivision if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the Department.

(g) *Best management practices (BMPs)*. The department may require that the owner or operator of a facility prepare, submit for approval, and implement a BMP plan in the event of the following:

(1) a release which results in significant environmental impacts, including but not limited to, a violation of ambient air or water quality standards, fish kills, or damage to sensitive environmental areas; or

(2) a series of releases which indicate that a facility is not employing generally accepted engineering practices that would prevent the recurrence of such releases.