

# **Petroleum Bulk Storage**

## **Article XXV of the Westchester County Sanitary Code**

**Adopted 3/18/10**

**Article XXV**  
**PETROLEUM BULK STORAGE**

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**Article XXV**  
**PETROLEUM BULK STORAGE**

**§873.2501. Declaration of Policy.**

It is hereby declared to be the health policy of the Westchester County Health District to regulate petroleum storage Facilities in order to protect the public health, welfare and the lands and waters of the County of Westchester.

**§873.2502. Definitions.**

The following is a list of terms and definitions that will be used in this Article:

1. The term "Aboveground Tank" means any stationary tank that is not entirely covered with earth or other material or any tank that can be inspected in a subterranean vault.
2. The term "API" means American Petroleum Institute.
3. The term "Carrier" means a person who transports and transfers petroleum from one pipe or tank to another.
4. The term "Cathodic Protection" means corrosion protection for an underground metal tank or pipe by causing a continuous electric current to flow from one or more electrodes or a sacrificial anode to the protected structure.
5. The term "Combined Storage Capacity" means the sum of the designed storage capacity at a Facility of each tank that has not been permanently closed.
6. The term "Commissioner" shall mean the Commissioner of Health for the County of Westchester.
7. The term "Corrosion Resistant", when referring to an underground tank means any tank that meets standards for new underground tanks specified in §873.2522 of this Article. When referring to a pipe, it is specified in §873.2533.2 of this Article.
8. The term "County" means the County of Westchester.
9. The term "Department" means the Westchester County Department of Health.
10. The term "Discharge" means any intentional or unintentional action or omission resulting in the releasing, spilling, leaking, pumping, pouring, emitting, emptying or dumping of petroleum into the waters of the County or onto lands from which it might flow or drain into said waters, except discharges pursuant to and in compliance with the conditions of a valid County, State or Federal permit.
11. The term "Electronic monitoring system" means an electronic leak detection system, approved by the New York State Department of Environmental Conservation, containing a warning system capable of operating on a continuous basis to detect petroleum prior to its reaching ground or surface waters.
12. The term "Existing Facility" means a Facility that has been constructed and is capable of being operated as of the effective date of this Article.
13. The term "Facility" means a single property or contiguous or adjacent properties used for a common purpose which are owned or operated by the same person on or in which are located:
  - 13.1. one or more stationary tanks which are used singularly or in combination for the storage or containment of more than one thousand one hundred gallons of petroleum; or
  - 13.2. all stationary tanks used for storage of used oil; or
  - 13.3. any tank whose capacity is greater than one hundred ten gallons that is used for the storage or containment of petroleum, the volume of which is ten percent or more beneath the surface of the ground. This term shall not include:
    - 13.3.1. Facilities licensed under article twelve of the navigation law;
    - 13.3.2. Facilities regulated under the federal natural gas act;

13.3.3. a heating oil tank used for on premises consumption at the same site which is not interconnected to any other heating oil tank and is used to store or contain less than one thousand one hundred gallons of petroleum unless such tank is located on a site that otherwise meets the definition of Facility given in this subdivision;

13.3.4. tanks one thousand one hundred gallons or less used to store motor fuel (gasoline or diesel products) for non-commercial purposes (not for resale) at a farm or residence, unless such tank or tanks are located on a site that otherwise meets the definition of Facility given in this subdivision;

13.3.5. tanks used to store or contain asphalt, however, tanks used to store or contain asphaltic emulsions are included; or

13.3.6. tanks which have been permanently closed in accordance with regulations promulgated pursuant to §§873.2520 of this Article.

14. The term "Leak Monitoring System" means a leak detection system as required in §§873.2524, 873.2529 and 873.2533.10.3 of this Article.

15. The term "Lining" means a coating of a non-corrodible material resistant to the product stored and bonded firmly to the interior surface of the tank.

16. The term "NACE" means NACE International.

17. The term "New Facility" means a Facility that is not an existing Facility.

18. The term "NFPA" means National Fire Prevention Association.

19. The term "Non-Stationary Tank" means any tank or container which in practice and design is mobile, including tanks on wheels, trolleys, skids, pallets or rollers, and vessels such as a 55-gallon drum.

20. The term "NYCRR" means the official compilation of Codes, Rules and Regulations of the State of New York.

21. The term "NYSDEC" means the New York State Department of Environmental Conservation.

22. The term "Oil Production Facility" means all wells, flow lines, separation equipment, storage Facilities, gathering lines and auxiliary non-transportation-related equipment used for the storage and handling of unrefined petroleum.

23. The term "Operator" means any person who leases, operates, controls or supervises a Facility.

24. The term "Out-of-Service" means a Facility or portion thereof no longer in use. Facilities or tanks which are used for seasonal storage, for surcharge storage or for standby storage are not considered out-of-service.

25. The term "Owner" means any person who has legal or equitable title to a Facility.

26. The term "Permanently Closed" means an out-of-service storage tank or Facility that has been closed in a manner prescribed by §873.2520.2 of this Article.

27. The term "Person" means any individual, public or private corporation, political subdivision, government agency, municipality, industry, co-partnership, association, firm, trust, estate or any other legal entity.

28. The term "Petroleum" shall include:

28.1. crude oil and any fraction thereof;

28.2. any mixture containing crude oil or any fraction thereof; and

28.3. synthetic forms of lubricating oil, dielectric oils, insulating oils, hydraulic oils and cutting oils.

The term "Petroleum" shall include motor fuels, heating oils, lubricating and cutting oils, petroleum greases, petroleum spirits (mineral spirits, naphtha), mineral and insulating oils, products made from mineral oil including automatic transmission fluid, and used oil.

The term "Petroleum" shall not include hazardous waste defined pursuant to the NYSECL §27-0903; substances meeting the definition of hazardous substance pursuant to the NYSECL §40-0105; animal or

vegetable oils that do not contain crude oil or fractions thereof; or substances that are gases at standard temperature and pressure.

29. The term "Reconditioned" means any tank which is rehabilitated by installing an interior liner or which is permanently repaired in a manner prescribed by §§873.2525 and 873.2531 of this Article.

30. The term "Secondary Containment" means containment that prevents any materials spilled or leaked from reaching the land or water outside the containment area before cleanup occurs.

31. The Term "Spill" or "Leak" means any escape of petroleum from the ordinary containers employed in the normal course of storage, transfer, processing or use.

32. The term "Stationary Tank" means all underground tanks or any aboveground tank that is non-mobile. Examples of stationary aboveground tanks include tanks that may rest on the ground or may be fixed or permanently in place on foundations, racks, cradles or stilts.

33. The term "Storage Facility", see §873.2502.13 herein.

34. The term "Substantially modified Facility" means the permanent closure, reconditioning or replacement of an existing tank or installation of a new tank at a Facility.

35. The term "Tank" means a stationary device designed to store petroleum, which is constructed of non-earthen materials that provide structural support. The term "tank" includes all associated pipes, lines, fixtures and other ancillary equipment. The term "tank" does not include septic tank; oil/water separators, surface impoundment, pit, pond or lagoon; stormwater or wastewater collection system; flow-through process tank; or liquid trap or associated gathering lines directly related to oil or gas production and gathering operations.

36. The term "Tightness Test" means a test that is performed in a manner consistent with the criteria set forth in §873.2517(6) of this Article.

37. The term "ULC" means Underwriters' Laboratory of Canada.

38. The term "Underground Tank" means any tank completely covered with earth or other material. Tanks in subterranean vaults accessible for inspections are considered aboveground tanks for the purpose of this Article.

39. The term "Unprotected Tank" means an underground tank that does not meet standards specified in §873.2522 of this Article. Examples of unprotected tanks include, but are not limited to, bare steel tanks, steel tanks which have been rehabilitated with an interior lining, steel tanks with exterior coatings of paint, asphalt or other similar material, steel tanks which have been retrofitted with cathodic protection and permeable concrete-encased bare steel tanks.

40. The term "Used Oil" means any oil that has been refined from crude oil or any synthetic oil that has been used and, as a result of such use, is contaminated by physical or chemical impurities.

41. The term "Waters" or "Waters of the County" shall be construed to include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets and canals within the territorial limits of the County of Westchester and all other bodies of surface or underground waters, natural or artificial, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface of underground waters), which are wholly or partially within or bordering the County or within its jurisdiction.

42. The term "Working Capacity" means the total capacity of a tank less an allowance for expansion and freeboard.

### **§873.2503. Applicability.**

This Article applies to all Facilities as defined in §873.2502.13 except the following:

1. Oil production facilities;
2. Facilities regulated under the Federal Natural Gas Act; and
3. Facilities licensed under Article 12 of the New York State Navigation Law.

**§873.2504. Severability.**

If any provision of this Article or its application to any person or circumstance is held to be invalid, the remainder of this Article and the application of that provision to other persons or circumstances will not be affected.

**§873.2505. Access to Records and Facilities.**

1. The Owner or Operator must allow any designated officer or employee of this Department or the New York State Department of Environmental Conservation (NYSDEC), at reasonable times and upon reasonable notice, to review and to copy any books, papers, documents and records relating to record-keeping requirements and compliance with this Article.

2. Any designated officer or employee of this Department or NYSDEC may, at reasonable times and upon reasonable notice, enter and inspect any premises which store or which are reasonably believed to store any petroleum products, for compliance with the provisions of this Article.

**§873.2506. Enforcement.**

1. Any person who violates any of the provisions of this Article or any order issued by the Commissioner shall be liable for the civil, administrative and criminal penalties as set forth in the Westchester County Sanitary Code and §§309 and 348 of the New York State Public Health Law. The Department reserves the right to forward major violations of this Article to NYSDEC for enforcement under Article 71 of the New York State Environmental Conservation Law.

2. Whenever the Commissioner has reason to believe that any person is in violation of any provision of the Westchester County Sanitary Code or the administrative regulations adopted thereunder, he or she shall commence an appropriate enforcement action. In addition, the Commissioner shall take appropriate enforcement action whenever there are violations of orders issued pursuant to any of the foregoing provisions regardless of whether such orders have been issued by the County or a court of competent jurisdiction.

3. Whenever, on the basis of information available to NYSDEC, there is reason to believe that any person is in violation of any of the provisions of ECL, Article 17, Title 10, or of 6NYCRR Parts 612-614, NYSDEC shall notify the County of such finding. If the County does not commence an appropriate enforcement action within thirty (30) days of the receipt of such notification, NYSDEC may initiate appropriate enforcement action to compel compliance and seek appropriate remedies, including penalties and site remediation.

4. Notwithstanding paragraph 3 above, nothing in this Order restricts or diminishes the authority of the NYSDEC Commissioner to initiate or cause to be initiated actions for violations of Article 17, Title 10, or 6NYCRR, Parts 612-614 or violations of the New York State Navigation Law.

**§873.2507. Powers of the Commissioner.**

1. The Commissioner may make, or cause to be made, any investigation or study which, in his opinion, is necessary for enforcing this Article or controlling or reducing the contamination, pollution, potential contamination or potential pollution within the County.

2. The Commissioner may order the Owner, Operator or any person in possession of any land, structure or equipment to take whatever action is necessary, in the opinion of the Commissioner, to bring the land, structure or equipment into compliance with the provisions of this Code. This includes, but is not limited to, the ordering of tank testing and/or the emptying of a Facility when leakage is suspected or when continued operation of the Facility would present a hazard or potential hazard to the general public, firefighting personnel, property, plant or animal life, groundwater quality or surface water quality or which interferes with the healthful enjoyment of life and property throughout such areas of the Westchester County Health District as may be affected thereby.

3. The Commissioner may set additional standards for the storage and handling of petroleum products that are necessary to carry out the purpose of this Article.

**§873.2508. Variances.**

The Commissioner may, upon written application from any person subject to this Article, grant a variance from one or more specific provisions from §§873.2521 through 873.2534, inclusive, of this Article. In granting a variance, the Department may impose specific conditions necessary to assure that the variance will have no significant adverse impact on the environment or public health. An application for a variance must:

1. identify the specific section or sections from which a variance is sought;
2. provide the Department with evidence, including data, plans, specifications and test results, that shows the new or alternative designs, practices or methods protect the environment in a manner equal to or greater than the requirements of this Article.

**§873.2509. Fees.**

The Commissioner shall establish a schedule of fees for permits, certifications, reviews and training to recover any direct cost associated with implementing, administering or enforcing the provisions of this Article.

**§873.2510. Prohibitions.**

It shall be unlawful for any person to discharge petroleum products or material contaminated with petroleum in the County unless such discharge is specifically in accordance with a permit issued by the State of New York, the Federal government or other agency acceptable to the Commissioner.

**§873.2511. Indemnification/Disclaimer of Liability.**

1. The permittee shall indemnify, hold harmless and defend the Department against any claim, cause of action, disability, loss, liability, damage or cost of expense, howsoever arising, which occurs by reason of an unlawful discharge in connection with a permittee's operations under this permit, except as with permittee's operations under this permit, except as arises from the Department's sole willful act or sole active negligence.
2. The degree of protection required by this Article is considered reasonable for regulatory purposes. The standards set forth herein are minimal standards and this Article does not imply that compliance will ensure that there will be no unlawful discharge of petroleum products. This Article shall not create liability on the part of the Department, any officer or employee thereof, for any damages that result from reliance on this Article or any administrative decision lawfully made thereunder. All persons handling, storing, using, processing, and disposing of petroleum products within the County shall be and are advised to determine to their own satisfaction the level of protection, in addition to that required by this Article, necessary or desirable to ensure that there is no unlawful discharge of petroleum products.

**§873.2512. Referenced Materials.**

Citations used in this Article refer to the publications as amended, listed below. These publications are available for copying and inspection at the Offices of the Westchester County Department of Health.

1. "NFPA No. 30" means the National Fire Protection Association, Flammable and Combustible Liquids Code, No. 30, July 5, 1984, NFPA, Batterymarch Park, Quincy, Massachusetts 02269 (Pages 30-14, 30-15, 30-17, 30-20 and 30-21).
2. "NFPA No. 30A" means the National Fire Protection Association, Automotive and Marine Service Station Code, No. 30A, July 5, 1984, NFPA, Batterymarch Park, Quincy, Massachusetts 02269 (Pages 30A-7 and 30A-8).
3. "UL No. 58" means Underwriters' Laboratories, Standards for Steel Underground Tanks for Flammable and Combustible Liquids, No. 58, April 10, 1981, Underwriters' Laboratories, 333 Pfingston Road, Northbrook, Illinois 60062.
4. "UL No. 142" means Underwriters' Laboratories, Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids, No. 142, January 16, 1985, Underwriters' Laboratories, 333 Pfingston Road, Northbrook, Illinois 60062.
5. "UL No. 1316" means Underwriters' Laboratories, Standard for Glass Fiber-Reinforced Plastic Underground Tanks for Petroleum Products, No. 1316, July 1, 1983, Underwriters' Laboratories, 333 Pfingston

Road, Northbrook, Illinois 60062.

6. "ULC-S603" means Underwriters' Laboratories of Canada, No. ULC-S603-M, 1981, Standards for Steel Underground Tanks for Flammable and Combustible Liquids, 1981, Underwriters' Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, Canada M1R3A9.

7. "ULC-S603.1" means Underwriters' Laboratories of Canada, No. ULC-S603.1-M, 1982, Standard for Galvanic Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids, 1982, Underwriters' Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, Canada M1R3A9.

8. "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 Crouse Road, Scarborough, Ontario, Canada M1R3A9.

9. "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 Crouse Road, Scarborough, Ontario, Canada M1R3A9.

10. "ULC No. CAN4-S615-M83" means Underwriters' Laboratories of Canada, No. CAN4-S615-M83, Standard for Reinforced Plastic Underground Tanks for Petroleum Products, 1983, Underwriters' Laboratories of Canada, 7 Crouse Road, Scarborough, Ontario, Canada M1R3A9.

11. "API Standard No. 620" means American Petroleum Institute, Standard No. 620, Recommended Rules for Design and Construction of Large, Welded, Low Pressure Storage Tanks, April 1985, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

12. "API Standard No. 650" means American Petroleum Institute, Standard No. 650, Welded Steel Tanks for Oil Storage, February 1984, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

13. "API Standard No. 1632" means American Petroleum Institute, Publication No. 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems, February 1982, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.

14. "Steel Tank Institute Standard No. sti-P<sub>3</sub>" means Specifications for sti-P<sub>3</sub> System for Corrosion Protection of Underground Steel Storage Tanks, July 1983, Steel Tank Institute, 666 Dundee Road, Suite 705, Northbrook, Illinois 60062.

15. "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 (January 1983 Revision), National Association of Corrosion Engineers, Box 218340, Houston, Texas 77218.

### **§873.2513. Registration of Facilities.**

#### 1. Existing Facilities.

1.1. Upon adoption of this Article, the Owner of any petroleum storage Facility must register the Facility with the Department or, if previously registered under the New York State Codes, Rules and Regulations, when said registration expires. This shall include any out-of-service Facility that has not been permanently closed.

1.2. Registration must be renewed every five (5) years from the date of the last valid registration until the Department receives written notice that the Facility has been permanently closed or that Ownership of the Facility has been transferred.

2. All owners shall register the Facility with the Department. In cases where there are multiple tank owners at a Facility, the owners of the tanks may designate one of the tank owners to be an authorized representative to register the tanks. The owner shall notify the Department when the authorized representative or operator of the Facility changes.

#### 3. Transfer of Ownership.

If ownership of the Facility changes, the new Owner must re-register the Facility with the Department



within fifteen (15) days after ownership transfer.

4. New Facilities.

The Owner must register any new Facility with the Department before it is placed in service.

5. Substantially Modified Facilities.

For substantial modifications to a Facility for which a work permit issued by the Department is required as per §873.2521, the Owner must notify the Department at least 48 hours prior to commencement of the substantial modification. For all other modifications to tanks at a Facility, an information correction must be submitted to the Department on a Petroleum Bulk Storage Application form within thirty (30) days after completion of the modification.

6. Registration Certificate.

6.1. Upon submittal of a complete registration application and payment of the registration fee, the Department shall issue a validated registration certificate. The Operator must conspicuously display a registration certificate that is current and valid on the premises of the Facility at all times.

6.2. A registration certificate shall not be transferred from one location to another, from one storage Facility to another or from one person to another.

7. Application Forms.

7.1. Facilities must be registered on application forms provided by the Department unless the Department approves an alternative means of registration. Forms are available from Department offices.

7.2. An application submitted by a corporation must be signed by a principal executive officer of at least the level of vice-president or a duly authorized representative who is responsible for the operation of the Facility. An application submitted by a partnership or a sole proprietorship must be signed by a general partner or proprietor. An application submitted by a municipal, state or other public Facility must be signed by a principal executive officer, ranking elected official or other duly authorized employee.

7.3. The Owner must submit with each application for registration or registration renewal a site plan that clearly reveals the location of all tanks, piping and other associated equipment. The plan must be submitted on an 8.5" by 11" plain piece of paper and include:

- 7.3.1. property lines;
- 7.3.2. all buildings;
- 7.3.3. adjacent streets and their names;
- 7.3.4. storage tanks identified by corresponding registration number;
- 7.3.5. storm drains and cesspools; and
- 7.3.6. location of non-stationary tanks and container storage areas.

8. Registration Fee.

The Owner must submit with each application for registration, registration renewal and notification of substantial modification (see §873.2513.4), a fee in accordance with a schedule established by the Commissioner.

**§873.2514. Bulk Storage in Flood Plains.**

Any Facility located in a one hundred (100) year flood plain must be safeguarded against buoyancy and lateral movement by flood waters in accordance with operating standards set forth in NFPA No. 30, Section 2-5.6, and in accordance with State and local flood plain regulations. If such safeguards include ballasting of tanks with water during flood warning periods, tanks 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 County if the discharge would contravene the standards of 6NYCRR, Parts 701, 702 or 703.

## §873.2515. Overfill Prevention and Secondary Containment Systems.

### 1. Responsibility for Transfer.

The Operator, when on the premises or when in control of a petroleum transfer, shall be responsible for transfer activities. If the Operator is not on the premises or not in control of a petroleum transfer, the Carrier will be responsible for transfer activities. The Operator or Carrier must employ practices and equipment for preventing transfer spills and accidental discharges. Prior to the transfer, the Operator or Carrier must determine that the receiving tank has available capacity to receive the volume of petroleum to be transferred. The Operator or Carrier must monitor every aspect of the delivery and must take immediate action to stop the flow of petroleum when the working capacity of the tank has been reached or should an equipment failure or emergency occur.

### 2. Spill Catchment Basins for Fill Ports.

All fill ports must be equipped with a spill containment device (spill catchment basin) which allows the Carrier to drain product from the delivery hose and return it to the tank. The spill containment basin must be designed so that it is product-tight, drains or pumps product into the tank, and will not collect water, dirt, or debris. The spill containment basin must be kept covered at all times except when product is delivered or the tank is gauged and must be kept clean and water-free. A spill catchment basin is not required for a heating oil tank installed prior to June 23, 1998 except when such tank or its associated piping is substantially modified.

### 3. Color Coding of Fill Ports.

3.1. Effective the date of these regulations, the Owner or Operator must permanently mark all fill ports to identify the product inside the tank.

#### 3.2. The colors to be used are:

Higher unleaded gasoline	Red with white cross
Middle unleaded gasoline	Blue with white cross
Lower unleaded gasoline	White with black cross
Vapor recovery	Orange
Diesel	Yellow
Low-sulfur diesel	Yellow with "U" stenciled in black
#1 fuel oil	Purple with yellow bar
#2 fuel oil	Green
#4 fuel oil	Green with "#4" stenciled in white
#5 fuel oil	Green with "#5" stenciled in white
#6 fuel oil	Green with "#6" stenciled in white
Kerosene	Brown
Used oil	Purple
All other products	Reference API color code guidelines

#### 3.3. The symbols to be used are:

3.3.1. a circle for gasoline products and vapor recovery lines;

3.3.2. a hexagon for other distillates; and

3.3.3. a border must be painted around fuel products containing extenders such as alcohol.

The border will be black around a white symbol and white around all other colors.

3.4. Monitoring wells must be permanently marked and identified as a "monitoring well".

### 4. Requirements for Valves and Gauges.

#### 4.1. Shutoff Valve for Remote Pumping Unit at Motor Fuel Dispenser.

All dispensers of motor fuel under pressure from a remote pumping system must be equipped with a shear valve (impact valve) which is located in the supply line at the inlet of the dispenser. This valve must be designed to close automatically in the event that the dispenser is accidentally dislodged from the inlet pipe. A valve meeting the standards set forth in NFPA No. 30A, Section 4-3.6 (see §873.2512.2) meets the

requirements of this Subsection.

#### 4.2. Shutoff Valve for Gravity-Fed Motor Fuel Dispenser.

All tanks which cause a gravity head on a dispenser of motor fuels must be equipped with a device such as a solenoid valve which is positioned adjacent to and downstream from the operating valve required in §873.2515.4.5. The valve must be installed and adjusted so that liquid cannot flow by gravity from the tank in case of piping or dispenser hose failure. A valve meeting the standards set forth in NFPA No. 30A, Section 2-1.7 (see §873.2512.2) meets the requirements of this Subsection.

#### 4.3. Gauges for Aboveground Storage Tanks.

4.3.1. All aboveground petroleum tanks must be equipped with a gauge that accurately shows the level of product in the tank. The gauge must be accessible to the Carrier and be installed so it can be conveniently read.

4.3.2. The design capacity, working capacity and identification number of the tank must be clearly marked on the tank and at the gauge.

4.3.3. A high-level warning alarm, a high-level liquid pump cutoff controller or equivalent device may be used in lieu of the gauge required above.

#### 4.4. Check Valve for Pump-Filled Tank.

All fill pipes leading to a pump-filled petroleum tank must be equipped with a properly functioning check valve or equivalent device which provides automatic protection against backflow. A check valve is required only when the piping arrangement of the fill pipe is such that backflow from the receiving tank is possible.

#### 4.5. Operating Valve for Gravity-Drained Tank.

Each tank connection through which petroleum can normally flow must be equipped with an operating valve to control the flow. A valve that meets the standards set forth in NFPA No. 30, Section 2-2.7.1 (see §873.2512.1) meets the requirements of this Subsection.

### 5. Secondary Containment for Aboveground Tanks.

5.1. A secondary containment system must be installed around any aboveground petroleum storage tank which:

5.1.1. could reasonably be expected to discharge petroleum to the waters or soil of the County; or

5.1.2. has a capacity greater than one thousand one hundred (1,100) gallons or more.

5.2. The secondary containment system must be constructed so that spills of petroleum and chemical components of petroleum will not permeate, drain, infiltrate or otherwise escape to the groundwaters or surface waters before cleanup occurs.

5.3. For tanks with a capacity of 10,000 gallons or more, the secondary containment system must consist of a combination of dikes, liners, pads, ponds, impoundments, curbs, ditches, sumps, receiving tanks and other equipment capable of containing the product stored; or be of a design approved by NYSDEC. Construction of diking and the storage capacity of the diked area must be in accordance with NFPA No. 30, Section 2-2.3.3 (see §873.2512.2).

5.4. For tanks with a capacity less than 10,000 gallons the Department may accept an alternate method to §873.2515.5.3, if the alternative method can be designed to prevent spills from:

5.4.1. overfills;

5.4.2. spills from the delivery hose;

5.4.3. leaks from valves, pumps and connections to the tank;

5.4.4. flow from valves left open;

5.4.5. vehicular traffic impacts;

- 5.4.6. flooding and flotation;
- 5.4.7. fire exposure.

5.5. Tanks with a capacity of more than 1,100 gallons must be equipped with a secondary containment system in accordance with §873.2515.5.4 or, if equipped with an alternative to secondary containment, must be of double-walled construction.

5.6. If soil is used for the secondary containment system, it must be of such character that any spill will be readily recoverable and will result in a minimal amount of soil contamination.

5.7. Storm water which collects within the secondary containment system must be controlled by a manually operated pump or siphon or a gravity drain pipe which has one manually controlled dike valve on the outside of the dike. All pumps, siphons and valves must be properly maintained and kept in good condition. If gravity drainpipes are used, all dike valves must be locked in a closed position except when the Operator is in the process of draining clean water from the diked area.

5.8. Storm water or any other discharge at a Facility must be uncontaminated and free of sheen prior to discharge. Storm water that is contaminated must be treated to reduce petroleum concentration to 15 parts per million (ppm) or less and to remove any visible sheen prior to discharge. Additional requirements may be imposed under 6NYCRR, Parts 751-758, for protection of the County's waters.

## 6. Maintenance of Spill Prevention Equipment.

The Owner or Operator must keep all gauges, valves and other equipment for spill and overfill prevention in good working order.

## **§873.2516. Inventory Monitoring for Underground Storage Facilities.**

### 1. Tank Inventory Records.

1.1. The Operator of an underground storage tank must keep daily inventory records for the purpose of detecting leaks. Records must be kept for each tank (or battery of tanks if they are interconnected) and shall include measurements of bottom water levels, sales, use, deliveries, inventory on hand and losses or gains. Reconciliation of records must be kept current, must account for all variables the which could affect an apparent loss or gain and must be in accordance with generally accepted practices.

1.2. If the tank is unmetered or if the tank contains petroleum for consumptive use on the premises where stored, the Operator may detect inventory leakage in an alternative method to §873.2516.1.1 above. This may include an annual standpipe analysis or other method acceptable to the Department.

### 2. Exemptions.

No inventory monitoring is required:

2.1. for an underground tank storing No. 5 or No. 6 fuel oil; or

2.2. where the operator can demonstrate to the satisfaction of the Department that it is technically impossible to perform inventory monitoring for the purpose of leak detection.

### 3. Maintenance of Inventory Records.

3.1. Inventory monitoring records must be maintained and made available for Department inspection for a period of not less than five (5) years. Current records (the last 90 days) must be maintained by the Operator at the Facility.

3.2. Failure to maintain and reconcile such records constitutes cause for Department-ordered tests and inspections of the Facility at Operator expense as set forth in §873.2519 of this Article and/or the installation of monitoring wells at Operator expense.

### 4. Reporting of Inventory Losses.

If inventory monitoring required in §873.2516.1 shows an inventory loss, a recurring accumulation of water in the bottom of the tank during any ten-day period, apparent product losses or gains exceeding three-

quarters (3/4) of one (1) percent of the tank volume or apparent losses or gains exceeding seven and one-half (7-1/2) gallons per one thousand (1,000) gallons delivered, the Operator must initiate an investigation into the possible causes. If, within forty-eight (48) hours, the causes cannot be explained by inaccurate record-keeping, temperature variation or other factors not related to leakage, the Operator must notify this Department by calling 914-813-5000 and the NYSDEC Spill Hotline at 1-800-457-7362 within New York State or 518-457-7362 outside New York State and must take the tank out of service in accordance with §873.2520 until such time that inspection and/or tightness tests are performed, the cause is determined and necessary repairs or replacements are made.

### **§873.2517. Underground Storage Facilities - Testing and Monitoring.**

#### **1. Periodic Tightness Testing.**

1.1. The Owner of any underground petroleum storage tank and connecting piping system must have the tank and pipes periodically tested for tightness as shown below:

1.2. Notwithstanding any other provision of law, rule or regulation, the department shall duly notify the Facility owner of the requirement for such owner to perform the required tightness test on a petroleum bulk storage tank no less than forty-five days prior to the date of the test expiration on the tank.

#### **Testing Schedule - Underground Tanks**

Category A. Unprotected tank. Initial test when the tank is ten (10) years old. Retest every five (5) years thereafter until reaching the age of twenty-five (25) years. Upon reaching twenty-five (25) years of age, tanks must be tested yearly.

Category B. Corrosion-resistant tank. Initial test when the tank is fifteen (15) years old. Retest every five (5) years thereafter until permanently closed.

Category C. Corrosion-resistant tank and piping which have a leak monitoring system or a new tank and piping installed in conformance with §873.2521 through §873.2534, inclusive, and §873.2536 of this Article require no periodic testing. Monitoring of cathodic protection and leak detection systems must be performed in accordance with §§873.2517.7 and 873.2517.8. Tanks that have been reconditioned in accordance with §873.2525 are not eligible for the exemption from periodic tank testing.

1.3. If, for any reason, testing or inspections are not performed as required in this Section, the tank and piping system must be replaced in accordance with §§873.2521 through 873.2533, inclusive, of this Article or taken out of service pursuant to the requirements of §873.2520 of this Article.

#### **2. Exemptions.**

No periodic tightness test is required:

2.1. on a tank and piping system storing No. 5 or No. 6 fuel oil;

2.2. on a tank and piping system which has a capacity of one thousand one hundred (1,100) gallons or less unless the Department determines that the tank or piping system could reasonably be expected to leak petroleum to the waters of the County;

2.3. on a tank and piping system which is corrosion resistant and has a leak monitoring system;

2.4. on tanks and piping systems installed in conformance with the standards for new construction as set forth in §§873.2521 through 873.2524, inclusive, and §873.2526 of this Article; or

2.5. where the size of the tank exceeds 50,000 gallons or where it is technically impossible to perform a meaningful tightness test. In this case, an alternative test or inspection that is acceptable to the Department must be conducted.

#### **3. Qualifications of Test Technicians.**

All tightness tests must be performed by a technician who has an understanding of variables which affect the test, is trained in the performance of the test, meets the qualifications and adheres to procedures as set forth by the Department and who is approved by this Department to test in Westchester County.

#### 4. Test Reports.

4.1. A test report must be sent by the Owner or technician to the Department no later than thirty (30) days after performance of the test, except any test or inspection which shows the Facility is leaking must be reported by any person with knowledge of such leak to the Department immediately by calling 914-813-5000 and to the NYSDEC Spill Hotline within two (2) hours at 1-800-457-7362 within New York State and 518-457-7362 outside New York State.

4.2. All test reports must be in a form satisfactory to the Department and must include the following information:

- 4.2.1. Facility registration number;
- 4.2.2. identification number used on the application form required in §873.2513(6) of this Article for tank and piping system tested;
- 4.2.3. date of test;
- 4.2.4. results of test;
- 4.2.5. test method;
- 4.2.6. certification by the technician that the test complies with criteria for a tightness test in §873.2517(6);
- 4.2.7. statement of technician's qualifications;
- 4.2.8. address of technician; and
- 4.2.9. signature of technician.

4.3. A copy of the test report(s) must be maintained by the Owner of the Facility for at least five (5) years.

#### 5. Repair, Replacement and Closure of Leaking Systems.

Any part of the storage Facility that is not tight must be promptly emptied. A program must be immediately initiated by the Operator or Owner to locate the cause of the loss and clean up any residue in accordance with §873.2519.3 of this Article. The tank must be promptly repaired, replaced or taken out of service in accordance with §873.2520 of this Article.

#### 6. Criteria for Tightness Test.

Any tightness test method must first be accepted by NYSDEC prior to acceptance by this Department. A tightness test is a test acceptable to the Department that will determine if a tank and piping system are tight or not tight. The test must be capable of detecting a tank or piping leak as small as five hundredths (0.05) of a gallon in one hour, accounting for variables such as vapor pockets, thermal expansion of product, temperature stratification, groundwater level, evaporation, pressure and end deflection.

#### 7. Monitoring of Corrosion-Resistant Tanks and Pipes.

7.1. The Owner or Operator of any corrosion-resistant underground tank or pipe which is exempt from tightness testing as specified in §873.2517.2 must monitor all cathodic protection and leak detection systems.

7.2. The adequacy of a cathodic protection system must be monitored at least annually. If at any time the system fails to provide the necessary electrical current to prevent corrosion, the cathodic protection system must be restored within thirty (30) days. Any tank or pipe with a non-working cathodic protection system will be considered unprotected and must be tested for tightness within one (1) year and retested every five (5) years thereafter until the tank system reaches twenty-five (25) years of age, upon which time the tank system must be tested yearly until the tank system is permanently closed.

#### 8. Inspection of Leak Monitoring Systems.

The Owner or Operator must monitor observation wells for traces of petroleum at least once per week. All other monitoring systems must be inspected monthly. Monitoring systems must be kept in proper working order. If at any time the monitoring system fails to function effectively, it must be repaired within thirty (30) days. Any tank or piping system with a non-working monitoring system must be tested for tightness within one (1) year and retested every five (5) years thereafter until the tank system reaches twenty-five (25) years of age,

upon which time the tank system must be tested yearly until the tank system is permanently closed.

9. Monitoring Records.

Monitoring records for cathodic protection and leak detection systems must be maintained on the premises for a period of at least one (1) year.

**§873.2518. Aboveground Storage Tank Facilities - Inspections.**

1. Monthly Inspections.

The Owner or Operator of an aboveground storage Facility must inspect the Facility at least monthly. This must include:

1.1. inspecting exterior surfaces of tanks, pipes, valves and other equipment for leaks and maintenance deficiencies;

1.2. identifying cracks, areas of wear, corrosion and thinning, poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank insulation, malfunctioning equipment and structural and foundation weaknesses; and

1.3. inspecting and monitoring all leak detection systems, cathodic protection monitoring equipment or other monitoring or warning systems which may be in place at the Facility.

2. Ten-Year Inspections - Schedule.

2.1. In addition to monthly inspections required above, the Owner or Operator must perform a detailed inspection as described in §873.2518.4 of any aboveground tank with a capacity of ten thousand (10,000) gallons or more or any tank with a capacity less than ten thousand (10,000) gallons which could reasonably be expected to discharge petroleum to the waters of the County. The initial inspection must be performed when the tank is ten (10) years old or upon the effective date of this Article, whichever comes later.

2.2. Any tank which is of an unknown age must be inspected upon the effective date of this Article.

2.3. If a tank is due for an initial inspection but has previously been inspected in a manner consistent with the criteria set forth in §873.2518.4 within a ten (10) year period prior to the due date, the Department may accept this previous inspection.

2.4. Reinspection of all tanks is required no later than ten (10) years from the date of the previous inspection.

3. Ten-Year Inspections - Exemptions.

Ten-year inspections are not required for:

3.1. tanks which are entirely aboveground such as tanks on racks, cradles or stilts;

3.2. tanks storing No. 5 or No. 6 fuel oil; or

3.3. tanks installed in conformance with the standards for new construction set forth in §§873.2527 through 873.2530, inclusive, of this Article.

4. Requirements for Ten-Year Inspections.

A ten-year inspection must consist of a tightness test of the tank and connecting underground pipes or an inspection that consists of the following:

4.1. cleaning the tank and difficult-to-reach areas within the tank in accordance with generally accepted practices;

4.2. removal, transportation and disposal of sludge in a manner consistent with all applicable County, State and Federal law; and

4.3. inspecting the tank shell for soundness and testing all welds and seams on the tank bottom for porosity and tightness. The test must be consistent with generally accepted industry testing and inspection

practices. This may include one or a combination of the following:

4.3.1. a tightness test, an air pressure, hydrostatic or vacuum test, a penetrating dye test, a non-destructive test to detect thinning of the tank or hammering to detect weak areas;

4.3.2. visual inspection of the internal surfaces of the tank and difficult to reach areas for corrosion or failure;

4.3.3. inspection of the internal coatings for any signs of failure of the coating system such as cracks, bubbles, blisters, peeling, curling or separation; and

4.3.4. a tightness test of any connecting underground pipes.

## 5. Inspection Reports.

5.1. Reports for each monthly inspection and ten-year inspection must be maintained and made available to the Department upon request for a period of at least ten (10) years. Records of monthly inspections for the previous year must be maintained at the Facility.

5.2. The reports must include the following information:

5.2.1. Facility registration number;

5.2.2. identification number for tank inspected;

5.2.3. date of inspection;

5.2.4. results of inspection, including a report on the need for repair;

5.2.5. certification by the inspector that the inspection has been performed in a manner consistent with the requirements of §873.2518;

5.2.6. address of inspector; and

5.2.7. signature of inspector.

## 6. Repair of Equipment Deficiencies.

If an inspection reveals a leak, a tank or equipment deficiency, a deficiency in monitoring equipment, excessive thinning of the tank shell which would indicate structural weakness when the tank is filled with petroleum or any other deficiency which could result in failure of the Facility to function properly or store and contain the product in storage, remedial measures must be promptly taken to eliminate the leak or deficiency and clean up any residue in accordance with §873.2519.3.

## 7. Uninspected Facilities.

If any portion of a Facility is not inspected as required, the uninspected portion of the Facility must be taken out of service pursuant to the requirements of §873.2520.

## **§873.2519. Additional Testing, Spill Notification, Clean Up Requirements and Corrective Actions.**

### 1. Additional Testing and Inspection Requirements.

1.1. Where a leak or spill of petroleum is suspected or appears probable, the department may order the owner to inspect that tank or tanks or associated equipment suspected to be leaking and to test for tightness and structural soundness or may prohibit delivery pursuant to subdivision §873.2519.3 of this section. If the owner fails within ten days to conduct such tests as required under this subdivision, the department may conduct such tests for tightness or structural soundness. The reasonable expenses of conducting such tests incurred by the department shall be paid by the owner.

1.2. It shall be unlawful to continue operation of any leaking tank or associated equipment of a Facility. The contents of such tank or equipment shall be promptly removed.

1.3. The department may prohibit deliveries of petroleum to any tank (i) that is leaking or (ii) where a leak appears probable. If the source of the leak or a probable leak cannot be determined, the department may prohibit deliveries to any tank or tanks that may be the probable source of a leak until such time as the source has been identified, at which time the prohibition on delivery will apply to the leaking tank or tanks. In addition,



the department may prohibit deliveries of petroleum to any tank that is in violation of any requirement prescribed by regulation pursuant to this title related to:

- 1.3.1. installing required equipment for spill prevention, overfill protection, leak detection, corrosion protection or secondary containment;
- 1.3.2. performing leak detection or inspections of tank systems;
- 1.3.3. properly operating or maintaining leak detection; or
- 1.3.4. properly operating or maintaining spill, overfill or corrosion protection equipment.

1.4. The department shall attach a tag to the tank or tanks to identify those tanks to which delivery is prohibited and provide a written notice to the owner and operator specifying the reasons for the prohibition of delivery. The department may consider not prohibiting deliveries of petroleum for up to one hundred eighty days after a determination is made that the Facility or tank meets the conditions in this subdivision if such prohibition would jeopardize the availability of, or access to, fuel in any rural and remote areas unless the department has determined that the condition at the Facility endangers public health, safety or the environment.

1.5. As promptly as possible thereafter, not to exceed fifteen days, the Department shall provide the owner or operator an opportunity to be heard and to present proof that such condition or activity does not violate the provisions of this section or of the rules or regulations adopted pursuant to this Article. The Department will follow the rules and regulations adopted by the NYSDEC regarding petroleum delivery prohibitions.

1.6. Unless otherwise authorized by the Department, no person shall tamper with or remove, or cause the tampering with or removal of, a tag attached to any tank under the provisions of this subdivision.

1.7. No person shall deliver, cause the delivery of, deposit, or accept petroleum to any tank or tanks to which a tag is affixed pursuant to this Article.

## 2. Reporting of Spills and Discharges.

Any person with knowledge of a spill, leak or discharge of petroleum must report the incident to this Department immediately and to NYSDEC within two (2) hours of discovery. The results of any inventory record, test or inspection which shows a Facility is leaking must be reported to this Department immediately and to NYSDEC within two (2) hours of discovery. Notification to this Department must be made by calling 914-813-5000. Notification to NYSDEC must be made by calling the Spill Hotline at 1-800-457-7362 within New York State and 518-457-7362 outside New York State. Notification to this Department shall not be deemed compliance with any reporting requirement of any other Federal, State or local law.

## 3. Remedial Action.

3.1. The Facility Owner shall be responsible to immediately institute and expediently complete all actions necessary to remedy the effects of any discharge. A comprehensive report must be submitted to this Department within two (2) weeks of the discharge indicating the cause of the discharge and detailing remedial action undertaken. A copy of this report, as well as any status reports, must also be submitted to NYSDEC Region 3 Spills Office in New Paltz pursuant to Article 12 of the State Navigation Law. Status reports, in addition to the final report, will be required as deemed necessary by the Commissioner and NYSDEC. NYSDEC is responsible to ensure appropriate and timely action is taken in response to a petroleum release. These reports are necessary in order to make this determination. Additional status reports, in addition to a final report, will be required as deemed necessary by the Commissioner.

3.2. Any excavated soils shall be sampled within twenty-four (24) hours of excavation for a hazardous waste determination in compliance with 6NYCRR, Part 371.

3.3. Results of excavated soil sampled must be submitted to the Department within ten (10) working days from the date of the sampling.

3.4. Closure samples must be collected within twenty-four (24) hours of excavation completion and analyzed per NYSDEC DER 10 – Technical Guidance for Site Investigation and Remediation. Laboratory results must be reported to the Department within ten (10) working days thereafter.

#### 4. Site Assessment.

A written closure plan describing the procedure to be used for tank decommissioning and site assessment to determine potential groundwater impacts may be required when the Department has reason to believe a tank may have contaminated surrounding soils or groundwater.

### **§873.2520. Closure of Out-of-Service Stationary Tanks.**

#### 1. Closure of Tanks Temporarily Out of Service.

1.1. Storage tanks or Facilities that are temporarily out of service for thirty (30) or more days must be closed as follows:

1.1.1. all product must be removed from the tank and piping system to the lowest draw-off point;

1.1.2. any waste product removed from the tank must be disposed of in accordance with all applicable State and Federal requirements. Tanks must be protected from flotation in accordance with good engineering practices; and

1.1.3. all manways must be locked or bolted securely and fill lines, gauge openings or pump lines must be capped or plugged to prevent unauthorized use or tampering.

1.2. Storage tanks or Facilities that are temporarily out of service are subject to all requirements of this Article including, but not limited to, periodic tightness testing, inspection, reporting and registration requirements as set forth in §873.2513 of this Article.

#### 2. Closure of Tanks Permanently Out of Service.

Any tank or Facility that is permanently out of service must comply with the following:

2.1. Liquid and sludge must be removed from the tank and connecting lines. Any waste products removed must be disposed of in accordance with all applicable State and Federal requirements.

2.2. The tank must be rendered free of petroleum vapors. Provisions must be made for natural breathing of the tank to ensure that the tank remains vapor-free.

2.3. All connecting lines must be disconnected and removed or securely capped or plugged. Manways must be securely fastened in place.

2.4. For underground tanks closed in place, the tanks must be filled to capacity with a solid inert material such as sand or concrete slurry. If an inert material is used, all voids within the tank must be filled.

2.5. Aboveground tanks must be stenciled with the date of permanent closure.

2.6. Aboveground tanks must be protected from flotation in accordance with good engineering practice.

#### 3. Out-of-Service Tanks and Facilities.

Storage tanks or Facilities which have not been closed pursuant to §873.2520.2 are subject to all requirements of this Article including, but not limited to, periodic tightness testing, inspection, reporting and registration requirements as set forth in §873.2513 of this Article.

#### 4. Reporting of Out-of-Service Tanks.

The Owner of a tank or Facility which is to be permanently closed must notify the Department within fifteen (15) days prior to permanent closure of the tank or Facility pursuant to the requirements of §873.2513.4 of this Article.

5. Used Tanks.

5.1. Tanks that are removed and do not meet the standards for new tanks set forth in §§873.2522 or 873.2527 cannot be reinstalled for the purpose of petroleum storage.

5.2. If a tank meets the standards for new tanks, it may be reinstalled for petroleum storage if, after thorough cleaning and inspection internally and externally, it is found to be structurally sound and free of pinholes, cracks, structural damage or excessive corrosion or wear. Such tanks must be reinstalled and tested in accordance with the requirements of this Article.

5.3. If a tank is to be disposed of as junk, it must be retested for petroleum vapors, rendered vapor-free if necessary, and punched with holes to make it unfit for storage of liquids.

6. Financial Assurances.

Forms of surety or financial assurances may be required by the Department to ensure proper closure of Facilities. The amount of such financial assurance will be set by the Department. Any requirement of financial assurances must be accompanied by a finding by the Department of the public interest and shall set forth the reasons for requiring such financial assurances.

7. Site Assessment.

7.1. A site assessment in accordance with NYSDEC guidance must be performed for any permanently closed underground tank. A report must be submitted to the Department within thirty (30) days after the site assessment has been performed.

7.2. A site assessment in accordance with NYSDEC guidance must be performed for any underground tank that is temporarily out of service for more than one (1) year. The site assessment must be done and a report submitted to the Department for approval prior to tank closure.

**§873.2521. Requirements for New and Substantially Modified Petroleum Storage Facilities.**

1. Construction and Modification Permits.

No person shall construct, install or substantially modify a petroleum storage Facility until a permit issued by the Commissioner has been obtained.

2. Handling and Storage.

A new Facility or a tank must employ all practices and equipment for handling and storage of petroleum as required in §§873.2514 through 873.2520, inclusive, before the new Facility or tank is placed in service.

3. Applicability.

3.1. Upon the effective date of this Article, all new petroleum Facilities or any addition, repair or replacement to an existing Facility must be constructed, designed and installed in accordance with §§873.2522 through 873.2534, inclusive, of this Article.

3.2. This applies to all aboveground and underground Facilities except as set forth in §873.2521.3.3.

3.3. Facilities licensed by NYSDEC under Article 12 of the Navigation Law and Facilities regulated under the Federal Natural Gas Act are exempted from this Article.

**§873.2522. Minimum Standards for New Underground Petroleum Storage Tanks.**

1. Label Requirements.

1.1. All new underground tanks used in Westchester County must bear a permanent stencil, label or plate which contains the following information:

1.1.1. a manufacturer's statement that "This tank conforms with §873.2522 of the Westchester County Sanitary Code";

1.1.2. the standard of design by which the tank was manufactured;

1.1.3. the petroleum products and percentages by volume of petroleum additives which may be stored permanently and compatibly within the tank or reference to a list available from the manufacturer which identifies products compatible with all tank materials;

1.1.4. the year in which the tank was manufactured;

1.1.5. a unique identification number;

1.1.6. the dimensions, design and working capacity and model number of tank; and

1.1.7. the name of the manufacturer.

1.2. A second label that shows all of the information required above and which also shows the date of installation must be conspicuously displayed and permanently affixed to the fill port. It must be readily visible to the Carrier and may be imbedded in concrete, welded to the fill port or otherwise permanently affixed.

## 2. Wear Plates.

All tanks must have a ten (10) gauge or thicker steel wear plate under each tank opening. Each plate must cover an area of at least one hundred forty-four (144) square inches and must be installed in a manner that avoids crevice corrosion.

## 3. Pressure Testing of New Tanks.

All new tanks, their welds, seams and connecting fittings must be factory tested for tightness using standard engineering practices. All tanks sold for use in Westchester County must be guaranteed by the manufacturer to be tight.

## 4. Fiberglass-Reinforced Plastic Tanks.

4.1. All fiberglass-reinforced plastic underground petroleum storage tanks must be designed and manufactured in accordance with one of the following standards:

4.1.1. UL No. 1316; or

4.1.2. ULC No. CAN4-S615-M83 (see §873.2512).

4.2. Fiberglass-reinforced plastic tanks must be of sufficient structural strength to withstand normal handling and underground use and must be chemically compatible with petroleum products, product additives and corrosive soils. Materials must be of sufficient density and strength to form a hard impermeable shell that will not crack, wear, soften or separate under normal service conditions.

## 5. Cathodically-Protected Steel Tanks.

5.1. Cathodically-protected steel tanks used for underground storage of petroleum must meet or exceed one of the following design and manufacturing standards:

5.1.1. ULC-S603; or

5.1.2. UL No. 58 (see §873.2512).

5.2. In addition to the design and manufacturing standard in §873.2522(5), such steel tanks must be cathodically protected with sacrificial anodes or an impressed current system that is designed, fabricated and installed in accordance with one of the following standards:

5.2.1. API Publication No. 1632;

5.2.2. ULC-S603.1;

5.2.3. Steel Tank Institute Standard No. sti-P<sub>3</sub>; or

5.2.4. NACE Standard SP0169-2007 and RP0285-2002

5.3. The cathodic protection system must be designed to provide a minimum of thirty (30) years of protection.

5.4. A qualified engineer or corrosion specialist must supervise the installation of the cathodic protection system where this is necessary to assure that the system has been installed as designed.

5.5. Each cathodic protection system must have a monitor that enables the Owner or Operator to check on the adequacy of cathodic protection.

5.6. Tanks which are protected by sacrificial anodes must be electronically insulated from the piping system with dielectric fittings, bushings, washers, sleeves or gaskets which are chemically stable when exposed to petroleum, petroleum additives or corrosive soils.

5.7. In addition to the above, tanks must be factory coated with coal tar-based epoxy or other coating which will provide equivalent protection and corrosion resistance. The coating must have a minimum finished thickness of ten (10) mils (0.01 inches) on the shell and fifteen (15) mils (0.015 inches) on the head. The coating must be electrically tested for short circuits or coating faults. Defects and any inadequacies in the coating must be repaired. The application of the coating must be in strict accordance with the instructions of the supplier of the coating material.

## 6. Steel Tanks Clad with Fiberglass-Reinforced Plastic.

6.1. Underground petroleum storage tanks constructed of steel clad with fiberglass-reinforced plastic must meet or exceed one of the following design and manufacturing standards:

- 6.1.1. ULC-S603; or
- 6.1.2. UL No. 58 (see §873.2512).

6.2. Tanks must be electrically insulated from the piping system with dielectric fittings, bushings, washers, sleeves or gaskets that are chemically stable when exposed to petroleum, petroleum additives or corrosive soils.

6.3. Tanks must have an exterior fiberglass-reinforced plastic shell bound firmly to the steel. This must consist of a base coat of resin five (5) to eight (8) mils (0.005 to 0.008 inches) in thickness overlaid by two layers of resin with fiberglass reinforcement with a thickness of at least eighty-five (85) mils (0.085 inches) after rolling. A final coat of resin must be applied to a thickness of ten (10) to fifteen (15) mils (0.01 to 0.015 inches). The thickness of the completed coating must be a minimum of one hundred (100) mils (0.1 inches) after curing. The coating's coefficient of thermal expansion must be compatible with steel so that stress due to temperature changes will not be detrimental to the soundness of the coating and a permanent bond between coating and steel is maintained. The coating must be of sufficient density and strength to form a hard, impermeable shell which will not crack, wick, wear, soften or separate and which must be capable of containing the product under normal service conditions in the event the steel wall is perforated. The coating must be non-corrodible under adverse electrolytic conditions and must be chemically compatible with petroleum products and product additives.

6.4. The coating must be factory inspected for air pockets, cracks, blisters, pinholes and electrically tested at ten thousand (10,000) volts for coating short circuits or coating faults. Any defects must be repaired. The coating must be factory checked with a Barcol Hardness Tester or equivalent to assure compliance with the manufacturer's minimum specified hardness standard for cured resin.

## 7. Double-Walled Tanks.

7.1. Any of the tanks allowed in §873.2522.4 through §873.2522.7, inclusive, may be fabricated in double-walled construction in accordance with acceptable industry practices.

7.2. A double-walled tank that is designed and manufactured in accordance with all of the following standards also satisfies the requirement for secondary containment and leak monitoring set forth in §§873.2523 and 873.2524:

- 7.2.1. the interstitial space of the double-walled tank can be monitored for tightness;
- 7.2.2. outer jackets of steel must have a minimum thickness of ten (10) gauge and be coated as prescribed in §873.2522.5 or §873.2522.6;
- 7.2.3. there must be no penetrations of any kind through the jacket to the tank except top entry manholes and fittings required for filling the tank, venting the tank or monitoring the interstitial space;
- 7.2.4. the outer jacket must cover at least the bottom eighty (80) percent of the tank; and
- 7.2.5. the jacket must be designed to contain an inert gas or liquid at a pressure greater than

the maximum internal pressure or be able to contain a vacuum for a period of one (1) month.

**§873.2523. Minimum Standards for Secondary Containment for New Underground Storage Tanks.**

1. General Requirements.

All new underground petroleum storage tanks must have a secondary containment system that collects and contains a leak. This must consist of one of the following:

- 1.1. a double-walled tank;
- 1.2. a vault;
- 1.3. cut-off walls; or
- 1.4. an impervious underlayment.

2. Standards for Secondary Containment.

2.1. Double-Walled Tanks.

If the secondary containment system consists of a double-walled tank, the tank must be constructed in accordance with §873.2522.7 and must have a monitoring system in accordance with §873.2524.2.

2.2. Vaults.

If a vault is used for secondary containment, the vault must be water tight, impervious to leakage of petroleum and able to withstand chemical deterioration and structural stresses from internal and external causes. The vault must be a continuous structure with a chemical-resistant water stop used at any joint. There must be no drain connections or other entries through the vault except that there may be top entry manholes and other top openings for filling and emptying the tank, venting and for monitoring and pumping of petroleum which may leak into the vault. The tank(s) within the vault must be encased or bedded in a manner consistent with acceptable engineering practices.

2.3. Cut-Off Walls.

2.3.1. Cut-off walls may be used where groundwater levels are above the bottom of the tank excavation.

2.3.2. A cut-off wall must consist of an impermeable barrier that has a permeability rate to water equal to or less than  $1 \times 10^{-6}$  cm/sec. It must not deteriorate in an underground environment and in the presence of petroleum.

2.3.3. A cut-off wall must extend around the perimeter of the excavation and to an elevation below the lowest groundwater level.

2.3.4. If a synthetic membrane is used for a cut-off wall, any seams, punctures or tears in the membrane must be repaired and made leak tight prior to backfilling. No penetrations of the cut-off wall are allowed.

2.3.5. Impervious native soil may serve as a cut-off wall when the impervious soil is continuous and is of sufficient depth, thickness and extent to contain a leak. The soil must have a permeability rate to water equal to or less than  $1 \times 10^{-6}$  cm/sec.

2.3.6. Anchoring or weighing to resist buoyancy forces is required where groundwater or floods may affect the tank.

2.4. Impervious Underlayment.

2.4.1. An impervious underlayment may be used under a tank at sites where groundwater levels are below the bottom of the excavation and where soils are well drained. This underlayment must have a permeability rate to water equal to or less than  $1 \times 10^{-6}$  cm/sec and must not deteriorate in an underground environment and in the presence of petroleum. The underlayment may consist of impervious native soils, an impervious concrete pad, synthetic membranes or any equivalent material. If a membrane is used, any seams

must be repaired prior to backfilling.

2.4.2. The underlayment must extend at least one (1) foot beyond the sides and ends of the tank and must have a slope to the sump of at least one-quarter (1/4) inch per foot. An observation well as required in §873.2524(4) must be positioned in the sump and extend to the surface of the excavation for the purpose of sampling for leakage and pumping out water or product which may accumulate.

2.4.3. Surface waters must be drained from the site using good engineering practices. This may include capping the site with asphalt, concrete or other impervious cover that is sloped to drain ways leading away from the storage tanks.

#### **§873.2524. Monitoring of New Underground Storage Tanks.**

##### 1. General Requirements.

All new tanks must have one of the following leak monitoring systems:

- 1.1. a double-walled tank with monitoring of the interstitial (annular) space;
- 1.2. an in-tank monitoring system; or
- 1.3. an observation well or wells.

##### 2. Monitoring of Double-Walled Tanks.

If a double-walled tank is used, the interstitial space must be monitored for tightness using pressure monitoring, vacuum monitoring, electronic monitoring, manual sampling once per week or an equivalent method.

##### 3. In-Tank Monitoring Systems.

If an in-tank monitoring system is used, it must consist of in-tank equipment which provides continuous monitoring of any leakage from the tank of two-tenths (0.2) of a gallon per hour or larger.

##### 4. Observation Wells.

4.1. If an observation (monitoring) well or series of wells are used, they must consist of slotted or screened wells at least four (4) inches in diameter. The well must be installed down gradient in the groundwater or at a sump within the secondary containment system and to an elevation at least twenty-four (24) inches below the bottom of the tank. The well must be installed within the backfill surrounding the tank. At least one well is required at each Facility. The well must be monitored for traces of petroleum at least once per week as required in §873.2517.8 of this Article.

4.2. An observation well may be used as a vapor or odor well if the site is uncontaminated. If the well becomes contaminated with petroleum, it must either be purged free of odors or monitored for petroleum contamination through another method capable of detecting one-sixty-fourth (1/64) of an inch of petroleum floating on the water surface or other method acceptable to the Department.

4.3. Wells must be protected from damage if located in a traffic area.

4.4. Wells must be sealed or capped so as to preclude liquid from entering the well from the surface and clearly marked as monitoring wells to prevent accidental delivery of product.

#### **§873.2525. Minimum Standards for Reconditioning an Underground Steel Tank.**

##### 1. Tightness Testing Schedules.

A reconditioned underground steel tank and its associated piping must be tightness tested in accordance with §873.2517.1. The original installation date of the tank and piping will determine the due date for required testing.

##### 2. Manufacturer's Guarantee.

An underground steel tank may be reconditioned by installing an interior coating (lining) under the direction of the lining manufacturer or a certified representative. The manufacturer or representative must

guarantee to the Owner in writing that the coating will not fail, crack, separate or deteriorate and the tank will not leak the product specified in storage for a period of ten (10) years. A copy of the guarantee must be kept by the Owner for the life of the tank.

### 3. Structural Requirements.

3.1. A steel tank may be lined with a coating only if it meets the following structural conditions:

- 3.1.1. it has a design shell thickness of seven (7) gauge or more;
- 3.1.2. the tank has a minimum metal thickness of one-eighth (1/8) inch at holes after reaming;
- 3.1.3. the tank has no open seam or split;
- 3.1.4. the tank has less than ten (10) holes with none larger than one-half (1/2) inch in diameter; and
- 3.1.5. the tank meets all standards for structural soundness of the lining manufacturer.

3.2. A tank that fails to meet all of the requirements of §873.2525.3.1 must be permanently closed.

3.3. To determine adherence to the requirements of §873.2525.3.1 above, the entire interior surface of the tank must be tapped with a ballpeen hammer for soundness or inspected using other equivalent or superior non-destructive methods. Weak areas, holes and seams must be ballpeen- hammered before and after sandblasting to obtain structurally sound edges. Holes and seams must be reamed until the edges of the opening are a minimum of one-eighth (1/8) inch thick.

### 4. Preparation of Tank Interior.

4.1. Cleaning of Tank Prior to Repair.

Prior to repair, a tank must be cleaned in accordance with generally accepted practices. Wash water must not be discharged to the lands or waters of the County if the discharge would contravene the standards of 6NYCRR, Parts 701, 702 or 703.

4.2. Sludge Removal.

Sludge accumulation on the bottom of the tank must be removed, transported and disposed of in a manner consistent with all State and Federal requirements for solid waste disposal.

4.3. Sandblasting of Internal Surfaces.

The entire internal tank surface must be sandblasted completely free of scale, rust and foreign matter. Following sandblasting, the entire surface must be brushed and vacuumed such that the surface, when viewed without magnification, is free of all moisture and foreign matter.

4.4. Plugging of Perforations.

All perforations must be tightly plugged with boiler plugs or screws made of non-corrodible plastic. Boiler plugs or screws must be covered with a laminate of resin and fiberglass cloth which overlaps all sides of the plug with a minimum of six (6) inches and has a minimum area of one hundred and forty-four (144) square inches.

### 5. Installation of Striker Plates.

Prior to applying the coating material, a ten (10) gauge steel plate which covers a minimum of one hundred and forty-four (144) square inches must be installed and centered under the fill tube and gauging tube. The plate must be bonded to the interior surface of the tank.

### 6. Coating (Lining) Specifications.

6.1. Any non-corrodible epoxy-based resins, isophthalic polyester-based resins or equivalent coating may be used for reconditioning a steel tank if the coating is of sufficient thickness, density and strength to form a hard, impermeable shell which will not leak, crack, wear, soften or separate from the interior surface of the tank.

6.2. The coating, when applied to properly prepared steel as required in §873.2525.4.3, must maintain



a permanent bond to the tank.

6.3. The coating's coefficient of thermal expansion must be compatible with steel so that stress due to temperature changes will not be detrimental to the soundness of the coating.

6.4. The coating must be chemically compatible with petroleum products and product additives.

## 7. Application of Coating.

7.1. The coating must be applied and cured in strict accordance with manufacturer's specifications.

7.2. The coating must be applied as soon as possible, but not later than eight (8) hours after sandblasting and cleaning of the internal surface. Visible rust, moisture or foreign materials must not be present.

## 8. Inspection of Coatings.

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

## 9. Tank Closings after Reconditioning.

9.1. If the tank has a manway, the manway cover gasket must be replaced with a new gasket before resealing.

9.2. If the tank does not have a manway and an opening has been cut, the tank must have a manway properly welded in place prior to beginning work or the tank must be sealed as follows:

9.2.1. A one-quarter (1/4) inch thick steel cover plate, rolled to the contour of the tank exterior must be made to overlap the hole at least two (2) inches on each side (e.g., measure at least 26" x 26" if the opening was cut 22" x 22").

9.2.2. The cover must be used as a template to locate three-quarter (3/4) inch diameter holes on five (5) inch centers, one (1) inch from the edge of the cover.

9.2.3. The cover plate must be sandblasted and both sides and the entire inside surface of the plate must be covered with coating material to act as a gasket.

9.2.4. Before the coating on the cover cures, the cover must be fastened to the tank using one-half (1/2) inch minimum diameter bolts. The bolt shafts are to be placed through the holes from the inside of the tank and held in place by spring clips, then fastened with lock washer and nuts which have been dipped in a seam sealer.

9.2.5. After being bolted to the tank, the cover plate and surrounding tank surface must be properly sandblasted, coated with coating material and allowed to cure before backfilling the hole.

## 10. Tank Tightness Testing.

Following closure of the tank and before backfilling, the relined tank must be given a tightness test and a test report must be sent to the Department.

### **§873.2526. Installation of Underground Facilities.**

#### 1. Installation Plans.

1.1. As-built plans must be prepared and signed by a registered Professional Engineer or Architect licensed to practice in the State of New York. Plans must be filed with the Department, attention PBS Section.

1.2. As-built plans must include a statement indicating that the design complies with the standards for new and substantially modified Facilities of Article XXV of the Westchester County Sanitary Code.

1.3. The Owner must maintain a copy of the as-built plans.

2. Application of New York State Uniform Fire Prevention and Building Code.

Underground tanks must be installed in a manner consistent with the following sections of the New York State Uniform Fire Prevention and Building Code and the NFPA No. 30:

2.1. New York State Uniform Fire Prevention and Building Code, Chapter 34

2.2. NFPA No. 30, Sections 2-3.1, 2-3.2, 2-5.6.1, 2-5.6.3, 2-5.6.4, 2-5.6.5 and 2-7 (see §873.2512.1).

3. Manufacturer's Instructions.

In addition to the above requirements, all tanks must be installed in strict accordance with manufacturer's instructions. This includes repair of any damage to the tank coatings prior to backfilling.

4. Testing of New Tanks.

Before being covered or enclosed and placed in service, all new tanks must be tested for tightness in accordance with §873.2517.6.

5. Notification of Code Enforcement Official.

5.1. Any person installing a new storage Facility or substantially modifying a Facility must apply to the authority responsible for enforcement of the Uniform Fire Prevention and Building Code for any building permit required by such authority prior to commencement of installation.

5.2. In addition, any person installing a new storage Facility or substantially modifying a Facility must give at least twenty-four (24) hours notice to this Department and to the local building or fire code enforcement official prior to commencement of excavation, testing for tightness and backfilling. The building or fire code enforcement official shall also be given a copy of the permanent Facility registration certificate as issued by the Department under §873.2513 of this Article. If a permanent certificate has not been issued, a copy of the temporary certificate shall be supplied to the code enforcement official in its place.

**§873.2527. Requirements for New Aboveground Tanks.**

1. Design and Construction Standards.

1.1. New aboveground petroleum storage tanks must be constructed of steel and meet or exceed one of the following design and manufacturing standards:

- 1.1.1. UL No. 142;
- 1.1.2. UL No. 58;
- 1.1.3. API Standard No. 650;
- 1.1.4. API Standard No. 620;
- 1.1.5. CAN4-S601-M84; or
- 1.1.6. CAN4-S630-M84 (see §873.2512).

1.2. Any aboveground petroleum storage tank which does not comply with the above requirements, such as a riveted or bolted steel tank, a tank constructed of wood, concrete, aluminum or fiberglass-reinforced plastic, may not be installed.

2. Cathodic Protection for Tank Bottoms.

2.1. Bottoms of new tanks that rest on or in the ground must be cathodically protected with sacrificial anodes or an impressed current system that is designed, fabricated and installed in accordance with recognized engineering practices.

2.2. The cathodic protection system must be designed to provide a minimum of thirty (30) years of protection.

2.3. A qualified engineer or corrosion specialist must supervise the installation of the cathodic protection system where this is necessary to assure that the system has been installed as designed.

2.4. Each cathodic protection system must have a monitor that enables the owner or operator to check

on the adequacy of cathodic protection.

### 3. Painting of Exterior Tank Surfaces.

The exterior surfaces of all new aboveground storage tanks must be protected by a primer coat, a bond coat and two or more final coats of paint or have an equivalent surface coating system designed to prevent corrosion and deterioration.

### **§873.2528. Impermeable Barrier for Aboveground Tanks.**

Any new stationary tank that is designed to rest on the ground must be constructed with a double bottom or underlain by an impervious barrier such as a concrete pad or cutoff barrier. If a barrier is used, it must have a permeability rate to water equal to or less than  $1 \times 10^{-6}$  cm/sec and must not deteriorate in an underground environment or in the presence of petroleum.

### **§873.2529. Monitoring Systems for New Aboveground Tanks.**

All new aboveground tanks must have equipment for monitoring between the tank bottom and the impermeable barrier required in §873.2528. This includes, but is not limited to, perforated gravity collection pipes or channels in a concrete foundation pad that may be monitored for the presence of petroleum visually, electronically or by other satisfactory methods. Observation wells or other systems which monitor the soil or groundwater beneath the impermeable barrier do not satisfy the leak detection requirements of this Section.

### **§873.2530. Other Minimum Requirements for New Aboveground Petroleum Storage Tank Facilities.**

Additional equipment required in §§873.2515.2 through 873.2515.5, inclusive, where appropriate, must be installed on all new installations.

### **§873.2531. Repairing and Reconditioning of Aboveground Tank Facilities.**

#### 1. Permanent Repairs.

All repairs must be permanent in nature and equal to or better than the standards of original construction. Such repairs must consist of:

- 1.1. steel welds or steel patches which are welded in place in accordance with accepted practices; or
- 1.2. practices set forth for reconditioning of underground tanks, as described in §873.2525.

#### 2. Welds.

All welds associated with the repair of a tank must be inspected and tested for tightness before the tank is returned to service.

#### 3. Chemical Compatibility with Petroleum Products.

Linings, coatings, grouts and other sealing materials which are chemically compatible with the petroleum product being stored may be used in conjunction with a permanent steel tank repair as outlined above, but by themselves are not acceptable permanent repairs.

#### 4. Cleaning of Tank Prior to Repair.

4.1. Prior to repair, a tank must be cleaned in accordance with generally accepted practices. Wash water must not be discharged to the waters of the County if the discharge would contravene the standards of 6NYCRR, Parts 701, 702 or 703.

4.2. Sludge that has accumulated on the bottom of the tank must be removed, transported and disposed of in a manner consistent with all applicable State and Federal requirements for solid waste disposal.

#### 5. Coating (Lining) Specifications.

5.1. Any non-corrodible epoxy-based resins, isophthalic polyester-based resins or equivalent coating which is bonded firmly to the interior surfaces may be used as a coating to protect a tank from future corrosion.

5.2 The coating must be applied as soon as possible, but not later than eight (8) hours after sandblasting and cleaning of the internal surface. Visible rust, moisture or foreign matter must not be present.

5.3 The coating must be of sufficient thickness, density and strength to form a hard impermeable shell that will not crack, soften or separate from the interior surface of the tank. The coating, when applied to properly prepared steel, must maintain a permanent bond to the tank.

5.4 The coating's coefficient of thermal expansion must be compatible with steel so that stress due to temperature changes will not be detrimental to the soundness of the coating.

5.5 The coating must be chemically compatible with petroleum products and product additives.

5.6 The coating material must be applied and cured in strict accordance with manufacturer's specifications.

5.7 Coatings used to protect the bottom of a tank must extend up the side of the tank a minimum of eighteen (18) inches.

## 6. Inspection of Coating.

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

## 7. Manufacturer's Guarantee.

The interior coating must be installed under the direction of the lining manufacturer or a certified representative. The manufacturer or representative must guarantee to the Owner in writing that the coating will not leak the product specified in storage and the lining will not deteriorate in any way for a period of ten (10) years. A copy of the guarantee must be kept by the Owner for the life of the tank.

## **§873.2532. Installation of Aboveground Facilities.**

### 1. Installation Plans.

1.1. As-Built plans must be prepared and signed by a registered Professional Engineer or Architect licensed to practice in the State of New York.

1.2. As-Built Plans must include a statement indicating that the design complies with the standards for new and substantially modified Facilities of Article XXV of the Westchester County Sanitary Code.

1.3. As-Built Plans must be submitted to the Department, attention Petroleum Bulk Storage Section.

### 2. Application of New York State Uniform Fire Prevention and Building Code.

Aboveground tanks and appurtenances must be installed in a manner consistent with the following sections of the New York State Uniform Fire Prevention and Building Code and NFPA No. 30:

2.1. New York State Uniform Fire Prevention and Building Code, Chapter 34; and

2.2. NFPA No. 30, Sections 2-5.1, 2-5.2, 2-5.3, 2-5.4 and 2-5.5 (see §873.2512.1).

### 3. Foundation Design.

New aboveground tanks must be supported on a well-drained stable foundation that prevents movement, rolling or settling of the tank and is designed to minimize corrosion of the tank bottom.

### 4. Avoiding Traffic Hazards.

New aboveground tanks, pipes and distribution equipment must not be located along highway curves or otherwise exposed to traffic hazards.

## 5. Testing of New Tanks.

Before being placed in service, all new tanks must be tested for tightness and inspected in accordance with requirements outlined in API Standard 650 (see §873.2512.12). If a pneumatic test is used, all fittings, welds and joints must be coated with a soap solution and inspected for air leaks.

## 6. Notification of Code Enforcement Official.

6.1. Any person installing an aboveground tank must apply to the authority responsible for enforcement of the Uniform Fire Prevention and Building Code for any building permit required by such authority prior to commencement of installation.

6.2. In addition, any person installing an aboveground tank must give at least twenty-four (24) hours notice to this Department and the local building or fire code enforcement official prior to commencement of installation. The local code enforcement official must also be given a copy of the permanent Facility registration certificate as issued by the Department pursuant to §873.2513 of this Article. If a permanent certificate has not been issued, a copy of the temporary certificate shall be supplied to the code enforcement officer in its place.

## **§873.2533. Requirements for New Underground Piping Systems.**

### 1. Installation Plans.

1.1. As-built plans for all new underground piping systems must be prepared and signed by a registered Professional Engineer or Architect licensed to practice in the State of New York.

1.2. As-built plans must include a statement indicating that the design complies with the standards for new and substantially modified Facilities of Article XXV of the Westchester County Sanitary Code. Plans must be filed with the Department, attention Petroleum Bulk Storage Section.

1.3. Final approval of the plans will be issued upon receipt of a statement from both the registered Professional Engineer or Architect and the installer indicating that the system has been installed in accordance with plans previously submitted to the Department and in compliance with the standards of new and substantially modified Facilities of Article XXV of the Westchester County Sanitary Code.

### 2. General Requirement.

All new underground piping systems, including fittings and connections, must be made of steel or iron that is cathodically protected, fiberglass-reinforced plastic or other equivalent non-corrodible material.

### 3. Cathodic Protection for Steel/Iron Pipe.

If piping systems are made of steel or iron, they must meet all of the following requirements for cathodic protection:

3.1. the cathodic protection system must be designed, fabricated and installed in accordance with recognized standards and industry practices;

3.2. the cathodic protection system must provide a minimum of thirty (30) years protection in highly corrosive soils; and

3.3. cathodic protection must be provided by the use of one or a combination of the following: galvanic coatings, sacrificial anodes, or impressed current.

### 4. Testing Sacrificial Anodes and Impressed Current Systems.

Where sacrificial anodes or impressed current systems are used, monitors to check on the adequacy of the system must be installed and kept in proper working condition. If at any time the monitor shows that the electrical current necessary to prevent corrosion is not being maintained, the system must be restored or the piping system will be considered unprotected and must be tested for tightness in accordance with §873.2517.1 of this Article.

### 5. Additional Hardware Required for Cathodic Protection.

Except where cathodic protection is provided by impressed current, underground piping systems must have dielectric bushings, washers, sleeves or gaskets installed at the end to electrically isolate the piping system from the tank and dispenser. These dielectric connectors must be chemically compatible when exposed to petroleum, petroleum additives and corrosive soils.

6. Fiberglass-Reinforced Plastic Pipes.

If fiberglass-reinforced plastic pipes are used, the materials, joints and joint adhesives must be chemically compatible with petroleum, petroleum additives and soil environments.

7. Fabrication and Material Standards.

Pipes, fittings and adhesives must be designed, fabricated and factory tested in accordance with generally accepted structural, material and performance standards for pressurized underground piping systems.

8. Access Ports.

All new underground piping systems must be designed, constructed and installed with access ports to permit tightness testing without the need for extensive excavation.

9. Installation.

9.1. All underground piping systems must be installed in accordance with recognized industry practices. All joints must be liquid and airtight.

9.2. All piping systems must be tested for tightness before being covered, enclosed or placed in use.

10. Other System Requirements.

10.1. Additional equipment as required by §§873.2515.2 through 873.2515.4, inclusive, where appropriate, must be installed on all new installations. Overfill prevention equipment must be used on all new underground storage tank fill systems.

10.2. Systems with a float vent valve must be installed with an extractable tee and may only be used on tanks that are limited to gravity fill.

10.3. Any new underground piping systems employing a remote pumping system for dispensing motor fuel must be equipped with a leak detector (leak monitoring system) capable of detecting pressure loss or product loss on the discharge side of the pump. A remote pump is any pump separated from the dispenser and which has the discharge line(s) operating under pressure.

10.4. New underground piping systems employing a suction pump must not be equipped with more than one check valve.

10.5. Each new underground piping system shall be provided with an approved means of monitoring the system for leakage.

10.6. New underground piping must be tightness tested prior to being placed into service in accordance with §873.2517.

**§873.2534. Non-Stationary Tanks and Containers.**

1. Storage.

1.1. All non-stationary tanks and containers used for the storage of petroleum products, whether indoors or outdoors, shall be stored in a way that will prevent the release of any of the contents of the container to the surface waters, groundwaters, surface of the ground or below ground of Westchester County.

1.2. Non-stationary tanks and containers of petroleum products shall at all times be stored on an impervious, chemical-resistant surface that is compatible with the material being stored.

1.3. Non-stationary tanks and containers shall be stored in a secure manner and protected from

vandalism, unauthorized access and damage by traffic, machinery or falling objects.

1.4. Non-stationary tanks and containers stored outdoors shall be protected against freezing, rusting and other weather-related damage.

1.5. Non-stationary tanks and containers shall be stored in a roofed Facility with an impervious floor, diked, impervious storage pad provided with adequate means of collecting and removing any accumulated storm water. Provisions must be made for contaminated water to be disposed of in an approved manner.

1.6. Indoor storage shall be in an area with an impervious floor and no floor drains, unless it can be demonstrated that no direct discharge will occur.

1.7. Non-stationary tanks and containers above twenty-five (25) gallons in size shall contain a placard or marking that identifies the contents. The identifying lettering shall be in accordance with regulations and standards adopted by or acceptable to the Commissioner.

## 2. Handling.

2.1. Non-stationary tanks and containers shall be filled, emptied, transported and otherwise handled in a manner which will prevent the release to the surface waters, groundwaters, surface of the ground or below ground of Westchester County of any toxic or hazardous materials.

2.2. Drums shall not be stacked more than three (3) high and only on their ends unless approved storage racks are provided.

2.3. Any area with stored containers and non-stationary tanks must be inspected on a daily basis by the Owner or Operator or his representative. Any indication of leakage or damage must be reported immediately to the Department at 914-813-5000 and within two (2) hours to the NYSDEC Spill Hotline at 1-800-457-7362 within New York State and 518-457-7362 outside New York State and action taken to correct the problem.

2.4. Inventory records of stored materials shall be kept at all times and shall be available for inspection by the Commissioner. Records shall clearly indicate deliveries, consumption, sale or final disposal and amount of all products. These records shall be kept for a period of five (5) years.

## 3. New Installations.

3.1. New non-stationary tanks and container areas shall be installed in a manner that will prevent the release into the surface waters, groundwaters, surface of the ground or below ground of Westchester County of any petroleum products.

3.2. Installation shall be in accordance with plans filed with the Department attention Petroleum Bulk Storage Section.

### **§873.2535. Filling of Unregistered Tanks.**

1. It shall be a violation of this Article to fill a tank greater than fifty-five (55) gallons subject to this Article that is not registered with the Department or for which a valid registration has expired.

2. It shall be a violation of this Article for an individual to fill a tank subject to this Article without first verifying that a valid registration is in effect for the tank.

### **§873.2536. Petroleum Bulk Storage Facility Operator Training**

1. The Department shall promulgate rules and regulations in accordance with NYSDEC regulations establishing training requirements for operators of Petroleum Bulk Storage Facilities. The Department shall specify training requirements for:

1.1. persons having primary responsibility for on-site operation and maintenance of storage tank systems;

1.2. persons having daily on-site responsibility for the operation and maintenance of storage tank systems; and

1.3. daily, on-site employees having primary responsibility for addressing emergencies presented by a spill or release from a storage tank system.

2. Persons required to receive training pursuant to the subsection above must comply with all requirements of the training regulations as promulgated by NYSDEC.



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