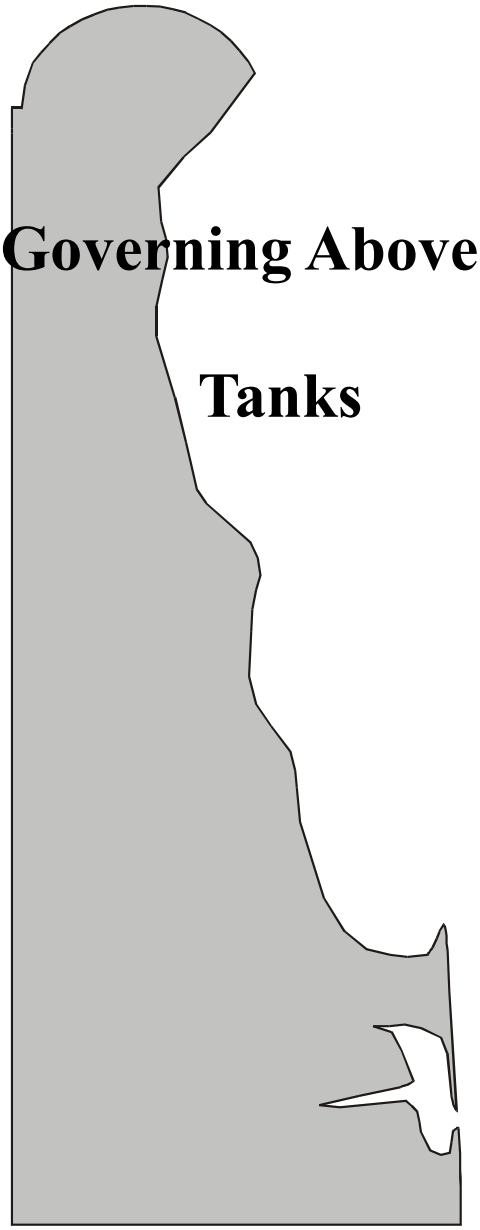
Regulations Governing Aboveground Storage Tanks



STATE OF DELAWARE

Department of Natural Resources and Environmental Control

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Department of Natural Resources and Environmental Control

Division of Air and Waste Management

Tank Management Branch

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PART A.

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Section 1. General Provisions

1.1. Statement of Authority and Purpose

1.1.1 These Regulations are enacted in accordance with Title 7 Del. C., Chapter 60, *Environmental Control,* and Title 7 Del. C., Chapter 74A*, The Jeffrey Davis Aboveground Storage Tank Act.*

1.1.2 The Delaware Department of Natural Resources and Environmental Control is responsible for protecting, preserving and enhancing the environmental quality of water, air and land of the State. In addition, the General Assembly of the State of Delaware has found "that it is therefore necessary to provide for more stringent control of the installation, operation, retrofitting, maintenance, repair, abandonment, and/or removal of aboveground storage tanks to prevent releases and where releases occur, to detect and remediate them at the earliest possible stage, thus minimizing further degradation of soil, air, surface water, and groundwater and promoting public safety."

The Regulations Governing Aboveground Storage Tanks are intended to address existing and potential sources of pollution that may result from ASTs. To ensure the prevention and early detection of a Release of a Regulated Substance should one occur, new ASTs are required to meet acceptable design and installation criteria and existing ASTs are required to Retrofit by a schedule set forth to comparable standards. AST design criteria promulgated under these Regulations will minimize the risk of Regulated Substances impacting the environment. Release confirmation and remediation standards are set forth to require the clean-up of any Release that does occur.

1.2. Applicability

1.2.1 The requirements of these Regulations shall apply to all Owners and Operators of an AST as defined in these Regulations unless specifically exempted in these Regulations.

1.2.2 The following ASTs shall only be subject to the requirements of Part A, §1, Part A, §2, Part A, §6 and Part A, §8 and Part E of these Regulations: *[Amended 2005]*

1.2.2.1 ASTs of 1,100 gallons or less in capacity, located on a farm, and used solely to facilitate the production of crops, livestock, or livestock products on the farm;

1.2.2.2 ASTs used solely to store propane gas;

1.2.2.3 ASTs of 1,100 gallons or less in capacity used solely to store Heating Fuel for consumptive use on the premises where stored;

1.2.2.4 ASTs of 1,100 gallons or less in capacity used solely to store Motor Fuel or motor oil for Noncommercial Purposes;

1.2.2.5 ASTs installed on a temporary basis, not to exceed six months;

1.2.2.6 ASTs regulated pursuant to Title 29 Del. C., Chapter 80 §8028, *Division of Boiler Safety;*

1.2.2.7 ASTs and associated equipment regulated as a part of a process regulated pursuant to Title 7 Del. C., Chapter 77, *Extremely Hazardous Substances Risk Management Act*.

1.2.3 The following ASTs shall only be subject to the requirements of Part A, §1.3; Part A, §2; Part A, §4.1; Part A, §4.2; Part A, §4.3; Part A, §4.4; Part A, §6; Part A, §8; Part A, §9; and Part E: *[Amended 2005]*

1.2.3.1 ASTs greater than 250 gallons and less than 12,499 gallons,

1.2.3.2 ASTs used solely to store diesel, kerosene or Heating Fuel with a capacity of less than 40,000 gallons, and

1.2.3.3 ASTS having a capacity greater than 250 gallons and containing a Regulated Substance other than diesel, Heating Fuel or kerosene and ASTs having a capacity greater than 19,999 gallons and containing diesel, Heating Fuel or kerosene shall also be subject to the requirements of Part A, §10. *[Amended 2005]*

1.2.4 ASTs regulated pursuant to 7 Del. C., Chapter 63 and the *Delaware Regulations Governing Hazardous Waste* shall be exempted from Part E of these Regulations. *[Amended 2005]*

1.2.5 The following types of aboveground storage tanks shall not be subject to these Regulations:

1.2.5.1 septic tank;

1.2.5.2 pipeline facility (including gathering lines) regulated under:

1.2.5.2.1. The Natural Gas Pipeline Safety Act of 1968 as amended [49 U.S.C. §1671 et seq.]; or

1.2.5.2.2. The Hazardous Liquid Pipeline Safety Act of 1979 as amended [49 U.S.C. §2001 et seq.]; or

1.2.5.2.3. Pipelines regulated pursuant to 33 U.S.C. and 49 CFR 195 *Transportation of Hazardous Liquids by Pipeline*; or

1.2.5.2.4. Pipelines regulated pursuant to 46 U.S.C. and 33 CFR 154 *Facilities transferring oil or hazardous material in bulk*

and 33 CFR 156 *Oil and hazardous material transfer operations*.

1.2.5.3 surface impoundment, pit, pond, or lagoon;

1.2.5.4 liquid trap or associated gathering lines directly related to oil or gas production or gathering operations;

1.2.5.5 Flow Through Process Tank that contains a Regulated Substance or substances and that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of material during the operation of the process. Flow Through Process Tanks include, but are not limited to seal tanks, surge tanks, bleed tanks, check and delay tanks, phase separator tanks, or tanks in which physical or chemical change of a material is accomplished. A Flow Through Process Tanks does not include:

1.2.5.5.1. a tank that is used for the storage of material before its introduction into a production process; or

1.2.5.5.2. a tank that is used for storage of products or by-products from the production process; or

1.2.5.5.3. a tank that is used only to recirculate materials.

1.2.5.6 transformers, regulators and breakers used for the sole purpose of electrical power distribution and transmission;

1.2.5.7 containment vessels operated as part of a publicly owned treatment works as defined pursuant to Title 7 Del. C., Chapter 60, *Environmental Controls,* §6002 and regulated pursuant to Title 7 Del. C., Chapter 60, *Environmental Controls,* §6003 or used for the storage and conveyance of wastewater to a treatment plant regulated in accordance with the requirements of the *Clean Water Act*.

1.2.6 Agricultural/Farm ASTs, shall only be subject to the requirements of Part A and Part E of these Regulations, provided that the Owner and Operator shall comply with a written best management practice for the Agricultural/Farm AST approved by the Department and appropriately updated for any substantial change of conditions. Failure to comply with the best management practice shall constitute a violation of this subsection subject to all appropriate enforcement sanctions including but not limited to daily penalties.

1.3. Enforcement

1.3.1 Any person who violates these Regulations shall be subject to all appropriate legal sanctions including but not limited to the provisions set forth in Title 7 Del. C., Chapter 74A,*The Jeffrey Davis Aboveground Storage Tank Act,* §7410A.

1.4. Severability

1.4.1 If any provisions of these Regulations are adjudged to be unconstitutional or invalid by a court of competent jurisdiction, the remainder of these Regulations shall not be affected thereby.

1.5. Right of Appeals

1.5.1 Any person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board in accordance with Title 7 Del. C., Chapter 60, *Environmental Controls,* §6008.

1.5.2 Any person or party to an appeal before the Environmental Appeals Board who is substantially affected by a decision of the Environmental Appeals Board may appeal to the Superior Court in accordance with Title 7 Del. C., Chapter 60, *Environmental Controls,* §6009.

1.6. Joint and Several Liability

1.6.1 Throughout these Regulations, Owners and Operators are jointly and severally liable for all duties and requirements. When used in these Regulations, "Owners or Operators" shall mean that the Owners and Operators are jointly and severally liable for the applicable duties and requirements.

Section 2. Definitions

The following words, terms and phrases have the meaning ascribed to them in this Section, except where the context clearly indicates a different meaning:

"Aboveground Storage Tank" or "AST" means a single aboveground containment vessel having a capacity of greater than 250 gallons and currently or previously having contained Regulated Substances on or after January 1, 1992. The term includes all ancillary aboveground pipes and Dispensing Systems up to the first point of isolation and all ancillary underground pipes and Dispensing Systems. Within this definition, the word "vessel" includes any container that can be partially visually inspected, from the exterior, in an underground area. The term AST does not include any of the following:

- septic tank;
- pipeline facility (including gathering lines) regulated under:
  (a) the *Natural Gas Pipeline Safety Act of 1968* as amended [49 U.S.C. §1671 et seq.], or
  (b) the *Hazardous Liquid Pipeline Safety Act of 1979* as amended [49 U.S.C. §2001 et seq.]; or
  (c) Pipelines regulated pursuant to 33 U.S.C. and 49 CFR 195 *Transportation of Hazardous Liquids by Pipeline*; or
  (d) Pipelines regulated pursuant to 46 U.S.C. and 33 CFR 154 *Facilities transferring oil or hazardous material in bulk* and 33 CFR 156 *Oil and hazardous material transfer operations*;
- surface impoundment, pit, pond, or lagoon;
- liquid trap or associated gathering lines directly related to oil or gas production or gathering operations;
- Flow Through Process Tank that contains a Regulated Substance or substances and that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of material during the operation of the process. Flow Through Process Tanks include, but are not limited to, seal tanks, surge tanks, bleed tanks, check and delay tanks, phase separator tanks, or tanks in which physical or chemical change of a material is accomplished. A Flow Through Process Tank does not include: 1) a tank that is used for the storage of material before its introduction into a production process; 2) a tank that is used for storage of products or by-products from the production process; or 3) a tank that is used only to recirculate material;
- transformer, regulators and breakers used for the sole purpose of electrical power distribution and transmission;
- containment vessels operated as part of a publicly owned treatment works as defined pursuant to Title 7 Del. C., Chapter 60, *Environmental Controls*, §6002 and regulated pursuant to Title 7 Del. C., Chapter 60, *Environmental Controls*, §6003 or used for the storage and conveyance of wastewater to a treatment plant regulated in accordance with the requirements of the *Clean Water Act*.

"Accidental Release" as it relates to Financial Responsibility requirements of Part D, means any sudden or nonsudden release of a Regulated Substance from an AST that is deemed at the Department's discretion to represent an unacceptable risk to human health, safety or the environment based on accepted principles of risk assessment.

"Agricultural/Farm AST" means an AST less than 40,000 gallons containing a Regulated Substance, the contents of which are applied to the soil, crops, or livestock or ingested by livestock and used solely to directly facilitate the production of crops, livestock, livestock products or golf course turf. Crops include fish hatcheries, rangeland, cropland and nurseries including turf grass growing operations. Agricultural/Farm ASTs do not include ASTs used to store substances used in a manufacturing process. A manufacturing process does not include Agricultural/Farm ASTs used to store and blend Regulated Substances for retail sales.

"Ancillary Piping" means all piping, including valves, elbows, joints, flanges, and flexible connectors, attached to an AST through which Regulated Substances may flow.

"Annual Aggregate" means the total amount of financial responsibility available to cover all obligations that might occur in one year.

"API" means American Petroleum Institute.

"ASTM" means American Society for Testing and Materials.

"Blanketing" means the technique of maintaining the Ullage volume in a regulated AST below the Limiting Oxidant Concentration (LOC) by the use of an Inert Gas.

"Bodily Injury" shall have the meaning given to this term by State law; however this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for Bodily Injury;

"Bulk Storage" as it is used in Part B, Section 12 of these Regulations, means an AST which is used to store a Flammable Regulated Substance and has the Flammable Regulated Substance added to or withdrawn from the AST by a vessel, tanker truck, rail car or pipeline.

"Cathodic Protection System" means a method to prevent corrosion to metal objects by forcing protective current from an external source onto the structure to be protected to counter or overcome any corrosion activity on its surface.

***"*CERCLA**" means the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* [42 USC, § 9601(14)] and any amendments thereto.

"Certified API 653 Inspector" means an individual who is certified by the American Petroleum Institute under the terms of the API 653 certification program to perform AST inspections.

"Certified API 570 Inspector" means an individual who is certified by the American Petroleum Institute under the terms of the API 570 certification program to perform piping inspections.

"Certified STI-SP001 Inspector" means an individual who is certified by the Steel Tank Institute (STI) under the terms of the STI certification program to perform Shop-Fabricated AST inspections.

"Change-In-Service" means any change to a registered AST to include but not be limited to permanent change in nature of contents, Removal, Permanent Change in Contents, Relocation, Permanent Closure in Place, change in status from either In-Service or Out-Of-Service, conversion to storage of other than Regulated Substances or conversion to a use other than as an AST.

"Chief Financial Officer" in the case of Local Government Owners and Operators, means the individual with the overall authority and responsibility for the collection, disbursement, and use of funds by the Local Government.

"Combustible" means capable of undergoing Combustion**.**

"Combustion" means the chemical process of oxidation that occurs at a fast enough rate to produce heat and usually light in the form of either a glow or flame.

"Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of an AST under conditions likely to be encountered at an AST Facility.

"Consumptive Use" with respect to Heating Fuel means consumed on the premises where stored.

"Continuous Leak Detection" means the uninterrupted measurement of the contents or other characteristics or parameters of an AST which immediately notifies the Operator of the failure of an AST to contain a Regulated Substance.

"Controlling Interest" means direct ownership of at least 50 percent of the voting stock of another entity.

"Deflagration" means the propagation of a Combustion zone at a velocity which is less than the speed of sound in the unreacted medium.

"Deflagration Pressure Containment" means the technique of specifying the design pressure of a regulated AST and its appurtenances so they are capable of withstanding the maximum pressures resulting from an internal Deflagration.

"Deflagration Suppression" means the technique of detecting and arresting Combustion in the Ullage volume of a regulated AST while the Combustion is still in its incipient stage, thus preventing the development of pressures that could result in a rupture of the AST.

"Department" means the Delaware Department of Natural Resources and Environmental Control.

"Dispensing" as it is used in Part B, Section 12 of these Regulations, means an AST which stores a Flammable Regulated Substance which is transferred directly from the AST into a portable container, or into the fuel tank of a motor, a motor vehicle or a boat to be used as a motor fuel.

"Dispensing System" means any devise including, but not limited to, hoses (rigid or flexible), piping, fittings, fixtures, gauges, alarms, rupture disks, pressure release valves, flanges, or valves and pumps that are used to distribute, meter or control the flow of Regulated Substance to and from an AST.

"Electrically Isolated" means the electrical separation of the AST from the piping and from other metallic structures and the environment by means of a nonconductive fitting or bushing.

"EPA" means the United States Environmental Protection Agency.

"Existing AST" means an AST for which substantial physical installation began prior to the effective date of these Regulations. The term substantial physical installation includes, but is not limited to, a permit or contract for the installation.

"Facility" means any location or part thereof containing or having contained one or more ASTs.

"Field-Constructed " means an AST which is constructed by assembling on-site at a Facility.

"Financial Reporting Year" means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

- a 10-K report submitted to the SEC; or
- an annual report of tangible net worth submitted to a recognized rating service such as Dun & Bradstreet; or
- annual reports submitted to the Energy Information Administration or the Rural Electrification Administration.; or
- audited financial report; or
- annual reports submitted to the Board of Governors of the Federal Reserve System, the Comptroller of the Currency, or the Federal Deposit Insurance Corporation.

"Fixed Roof" means an AST which has an immovable roof or cover used as the sole means to either contain the vapors from a Regulated Substance stored within the AST or prevent unwanted contaminants from entering the AST.

"Flammable" means a Regulated Substance which meets the definition of an NFPA 30 Flammable Liquid.

"Floating Roof" means an AST which has a movable roof or cover which floats or rides upon the surface of a Regulated Substance to contain vapors from a Regulated Substance stored within the AST or prevent unwanted contaminants from entering the AST.

"Flow Through Process Tank" means a tank that contains a Regulated Substance or substances and that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of material during the operation of the process. Flow Through Process Tanks include, but are not limited to, seal tanks, surge tanks, bleed tanks, check and delay tanks, phase separator tanks, or tanks in which physical or chemical change of a material is accomplished. A Flow Through Process Tank does not include: 1) a tank that is used for the storage of material before its introduction into a production process; 2) a tank that is used for

storage of products or by-products from the production process; or 3) a tank that is used only to recirculate materials.

"Free Product" means immiscible liquid phase Regulated Substance existing in the subsurface with a positive pressure such that it can flow into a well.

"Guarantor" means a business entity that:

- Possesses a controlling interest in the Owner and Operator; or
- Possesses a controlling interest in a firm that has a controlling interest in the Owner and Operator; or
- Is an affiliate which is controlled through stock ownership by a common parent firm that possesses a controlling interest in the Owner and Operator; or
- Is engaged in a substantial business relationship with the Owner and Operator and is issuing the guarantee as an act incident to that business relationship.

"Heating Fuel" also known as heating oil, means a type of fuel oil that is one of seven technical grades. These grades are: No. 1, No. 2, No 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 residual and other fuels used as substitutes for one of these fuels such as kerosene and diesel when used for heating purposes.

"Impervious" means a material of sufficient thickness, density and composition that is impenetrable, or has a permeability of less than 1×10^{-7} cm/sec. to the Regulated Substance, and that will prevent the discharge to the lands, ground waters, or surface waters of the State of any Regulated Substance for a period of at least as long as the maximum anticipated time during which the Regulated Substance will be in contact with the material.

"Impressed Current System" means direct current supplied to a Cathodic Protection System.

"Inert Gas" means a gas which is nonreactive with the contents of an AST. Inert gases may include but shall not be limited to nitrogen, carbon dioxide, helium, argon, xenon and krypton. An Inert Gas may consist of a mixture of different Inert Gases.

"Inerting" means the technique by which a Combustible mixture in the Ullage volume of an AST is rendered Non-Ignitable by the addition of an Inert Gas which reduces the Oxidant concentration below the Limiting Oxidant Concentration (LOC).

"**In Service**" means an AST that:

- is being actively maintained or operated; or
- contains a Regulated Substance or has a Regulated Substance regularly added to or withdrawn from the AST; or
- is emptied solely for the purpose of cleaning, routine maintenance, or a change in product, for a time period not to exceed 45 days.

"Leak" means the failure of an AST to contain a Regulated Substance.

"Leak Detection" means electronic, manual, or mechanical measurement of the contents or other characteristics or parameters of an AST which notifies the Operator of the failure of an AST to contain a Regulated Substance.

"Legal Defense Cost" means any expense that an Owner and Operator or provider of financial assurance incurs in defending against claims or actions brought by:

- The EPA or the Department to require investigations and/or corrective action or to recover the costs of investigations and/or corrective action;
- Or on behalf of a third party for Bodily Injury or Property Damage caused by an Accidental Release; or
- Any Person to enforce the terms of a financial assurance mechanism.

"Limiting Oxidant Concentration" (LOC) means the concentration of an Oxidant below which a Deflagration cannot occur.

"Local Government" shall have the meaning given this term by applicable State law and includes Indian tribes. The term is generally intended to include:

- Counties, municipalities, townships, separately chartered and operated special districts (including Local Government public transit systems and redevelopment authorities), and independent school districts authorized as governmental bodies by State charter or constitution; and
- Special districts and independent school districts established by counties, municipalities, townships, and other general purpose governments to provide essential services.

"Major Repair or Major Alteration" means operations that require cutting, addition, removal and/or replacement of the annular plate ring, the shell to bottom weld, or a sizable portion of the shell of an AST. These include but are not limited to the following:

- the installation of any shell penetration beneath the design liquid level larger than 12 inches National Pipe Standard, or any bottom penetration located within 12 in. of the shell.
- the removal and replacement or addition of any shell plate beneath the design liquid level, or any annular plate ring material where the longest dimension of the replacement plate exceeds 12 in.
- the complete or partial (more than one-half of the weld thickness) removal and replacement of more than 12 in. of vertical weld joining shell plates, or radial weld joining the annular plate ring.
- the installation of a new bottom. This does not include new bottoms in ASTs where the foundation under the new bottom is not disturbed and either condition (1) or (2) are met:
    (1) For ASTs with annular rings, the annular ring remains intact.
    (2) For ASTs without annular rings, the repair does not result in welding on the existing bottom within the critical zone.
- the removal and replacement of any part of the weld attaching the shell to the bottom or to the annular ring.
- jacking of an AST shell.

"Monitor Well" means a well installed in accordance with *Delaware Regulations Governing the Construction and Use of Wells* that will be used for the monitoring of ground water quality.

"Motor Fuel" means petroleum or a petroleum-based substance which is typically used in the operation of a motor vehicle, small engine, or aircraft engine, including:

- Motor gasoline;
- Aviation gasoline;
- No. 1 or No. 2 diesel fuel, and
- Any grade of gasohol.

"NACE" means National Association of Corrosion Engineers.

"New AST" means a tank for which substantial physical installation began on or after the effective date of these Regulations.

"NFPA" means National Fire Protection Association, Inc.

"Noncommercial Purposes" with respect to Motor Fuel or motor oil means the product in the AST is not used for any activities that result in monetary gain.

"Non-Ignitable" means a gas or vapor in the presence of an Oxidant in which Combustion cannot be initiated by the introduction of an ignition source such as a flame, spark, or heat.

"Occurrence" as it relates to financial responsibility, means an accident, including continuous or repeated exposure to conditions, which results in a release from an AST. This definition is not intended either to limit the meaning of "occurrence" in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of "occurrence".

"Operator" means a Person who has responsibility for the care, custody, and control of the daily operation of an AST, including but not limited to responsibility conferred by lease, contract or other form of authorization agreement.

"Orphan Tank" means:

- a tank for which the last Person to operate the tank cannot be identified; or
- a tank on property as to which the property Owner can establish that the Owner did not obtain and could not have obtained, through the exercise of reasonable and due diligence, knowledge of the existence of the tank prior to purchase of the property.

"Out-Of-Service" means an AST that is:

- designated as Out-Of-Service by the Owner and Operator and the Owner and Operator shall provide notification to the Department on a Department registration form; or
- an empty tank; or
- not in use, in that it has not had, within any 45-day period, a Regulated Substance transferred into or withdrawn from the tank and has been drained of all contents and is empty.

"Owner" means a Person who has or has had a legal interest in a Facility or AST or

who has or has had an equitable interest in a Facility or AST except when a Person holds an interest in a tank, as a security interest unless through foreclosure or other such action the holder has taken possession of or operated the tank.

"Oxidant" means any material that can react with a Regulated Substance to support Combustion in the Ullage of an AST. Oxygen in air is the most common Oxidant.

"PEI" means Petroleum Equipment Institute.

"Permanent Change in Contents" means leaving an AST and Ancillary Piping in its installed location, removing the Regulated Substance from the AST and Ancillary Piping, thoroughly cleaning the interior of the AST and the Ancillary Piping, and continuing active use of the AST and Ancillary Piping with the intent of only storing and conveying a non-Regulated Substance in the AST and Ancillary Piping.

"Permanent Closure in Place" or **"Permanently Closed in Place"** or **"Permanently Closing in Place"** or **"Permanently Closed"** means leaving an AST and Ancillary Piping in its installed location, removing the Regulated Substance from the AST and Ancillary Piping, thoroughly cleaning the interior of the AST and interior of the Ancillary Piping, disconnecting the Ancillary Piping from the AST, securing the AST and the Ancillary Piping to prevent unauthorized access, and discontinuing active use of the AST and Ancillary Piping with the intent of not introducing a Regulated Substance into the AST and Ancillary Piping.

"Permeability" means the ease with which fluid can move through a material and is measured by the rate of flow in suitable units.

"Person" means an entity, individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, company, association, state, municipality, commission, political subdivision of a state, or any interstate body.

"Pipe" means an impermeable hollow cylinder or tubular conduit that conveys or transports Regulated Substances, or is used for venting, filling, or removing Regulated Substances.

"Professional Engineer" means "engineer", as defined in Title 24 Del. C., Chapter 28, *Professional Engineers,* namely, a person who by reason of his or her advanced knowledge of mathematics and the physical sciences, acquired by professional education and practical experience, is technically and legally qualified to practice Professional Engineering, and who is licensed by the Delaware Association of Professional Engineers.

"Property Damage" shall have the meaning given this term by applicable State law. This term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

"Provider of Financial Assurance" means an entity that provides financial assurance to an Owner and Operator of an AST through one of the mechanisms listed in these Regulations,

including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state required mechanism, or a state.

"RCRA" means the *Solid Waste Disposal Act*, as amended by the *Resource Conservation and Recovery Act of 1976*, as amended, [42 USC §6901 et seq.].

"Reconstruction" means any work necessary to reassemble an AST that has been dismantled and Relocated to a new site.

"Regulated Substance" means a liquid or gas that:

- contains one percent or more of a hazardous substance as defined in the *Comprehensive Environmental Response, Compensation and Liability Act of 1980* [42U.S.C. §9601(14)] and any amendments thereto; or
- contains 0.1 percent or more of a carcinogen as defined by EPA in the *Integrated Risk Information System* (IRIS) April 2002 and as updated; or
- is a petroleum product, including crude oil or any fraction thereof, which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute); or
- is a substance determined by the Secretary through regulation to present a risk to public health or welfare or the environment if released into the environment.

"Release" means the spilling, leaking, discharging, leaching, or disposing of a Regulated Substance into groundwater, surface water, soil, or air that is not permitted by law, regulation or permit.

"Release Prevention Barrier" means an Impervious barrier that serves to prevent the escape of a Regulated Substance or to contain or channel the released Regulated Substance for Leak Detection.

"Relocation" or **"Relocating"** or **"Relocated"** means removing the Regulated Substance from an AST, thoroughly cleaning the interior of the AST, moving the AST to a new location within a Facility without a transfer of ownership or moving the AST to a different Facility without a transfer of ownership, installing the AST in its new location, and inspecting the AST prior to its continued use for the storage of a Regulated Substance.

"Removal" or **"Removing"** or **"Removed"** means taking the Regulated Substance from the AST and Ancillary Piping, thoroughly cleaning the interior of the AST and Ancillary Piping, completely displacing the AST and Ancillary Piping from its installed location, and rendering the AST and Ancillary Piping permanently non-useable or discontinuing use of the AST and Ancillary Piping as an AST and Ancillary Piping with the intent of not introducing a Regulated Substance into the AST and Ancillary Piping.

"Retrofit" or **"Upgrade"** means to modify an AST to meet standards contained in these Regulations.

"Sacrificial Anode System" means a system to control corrosion of a metal surface which entails installing an electrode of an electrochemical cell that will oxidize preferentially to the metal surface that has been made the cathode of the electrochemical cell.

"Secondary Containment" means a containment system designed and constructed to retain any Regulated Substance that leaves the primary containment including an AST and Ancillary Piping and prevent any Regulated Substance from reaching the surface water, groundwater, or adjacent land before cleanup occurs. Included are structures/ devices sufficiently impermeable to contain released Regulated Substances for a period of time sufficient for the cleanup and removal of captured material including;

(1) dikes, berms or retaining walls;
(2) curbing;
(3) diversion ponds, holding tanks, sumps;
(4) vaults;
(5) double-walled tanks;
(6) liners external to the tanks;
(7) other means as approved by the Department.

"Secretary" means the Secretary of the Department of Natural Resources and Environmental Control or a duly authorized designee.

"Shop-Fabricated " means an AST which is constructed at a tank manufacturer's plant and transported to a Facility for installation.

"Spark Extinguishing System" means a process in which the radiant energy of a spark or an ember is detected and the spark or ember is quenched.

"Spent Acid" or "Spent Caustic" means an acid or caustic Regulated Substance which was used in a process where it was mixed with, or reacted with, or used as a catalyst to produce, or may have come in contact with a Flammable Liquid as defined by NFPA 30.

"State" means the State of Delaware.

"Substantial Business Relationship" means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from and depends on existing economic transactions between the Guarantor and the Owner and Operator.

"Substantial Governmental Relationship" means the extent of a governmental relationship necessary under applicable state law to make an added guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from a clear commonality of interest in the event of an AST Release such as coterminous boundaries, overlapping constituencies, common ground-water aquifer, or other relationship other than monetary compensation that provides a motivation for the Guarantor to provide a guarantee.

"Tangible Net Worth" means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing economic benefits obtained or controlled by a particular entity as a result of past transactions.

"Tank Management Branch" means the Tank Management Branch of the Division of Air and Waste Management in the Delaware Department of Natural Resources and Environmental Control.

"Termination" means only those changes that could result in a gap in financial responsibility coverage as where the insured has not obtained substitute coverage or has obtained substitute financial responsibility coverage with a different retroactive date of the original policy.

"Ullage" means the volume of a Fixed Roof AST which does not contain a Regulated Substance in liquid form. It is synonymous with the vapor space.

"Underground Pipe" means piping or portions of piping meeting all of the following conditions:

(1) Is physically underground and cannot be visually inspected; and
(2) Conveys or transports a Regulated Substance stored in the AST; and
(3) Is located between the AST and the first vessel, tank or other piece of equipment (other than piping components such as pumps, valves and the Dispensing System) that does not meet the definition of an AST.

"UL" means Underwriters Laboratories, Inc.

"Upgrade" or **"Retrofit"** means to modify an AST to meet standards contained in these Regulations.

"Upper Flammable Limit (UFL)" means the highest concentration of a Flammable substance in which Combustion can propagate in the presence of an Oxidant.

"Vault" means a structure that completely encloses the tank and shall be constructed of materials compatible with the Regulated Substance to be contained in the AST.

"Verifiable Service" means delivery of mail by means of a delivery service that provides verification upon delivery.

[Amended 2005]

Section 3. Reference Standards

3.1. The referenced standards listed in this Section have served in part as the basis for the standards enacted under these Regulations. The most recent editions of the referenced standards are available for review and inspection with prior notification at the Department of Natural Resources and Environmental Control, Tank Management Branch and from the following sources (addresses of the cited organizations are subject to change):

3.1.1 American Petroleum Institute (API), 1220 L Street, N.W., Washington, D.C. 20005, (202) 682-8375.

3.1.2 National Association of Corrosion Engineers (NACE), P. O. Box 218340, Houston, Texas 77218, (713) 492-0535.

3.1.3 Underwriters Laboratories (UL), 333 Pfingsten Road, Northbrook, Illinois 60062, (847) 272-8800.

3.1.4 National Fire Protection Association (NFPA), Batterymarch Park, Quincy, MA 02269.

3.1.5 American Society for Non-destructive Testing (ASNT), 1711 Arlington Lane, Columbus, Ohio 43228-0518.

3.1.6 Steel Tank Institute (STI), 570 Oakwood Road, Lake Zurich, Illinois 60047.

3.1.7 American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19429-2959

3.1.8 American Society of Mechanical Engineers (ASME), ASME International Three Park Avenue, New York, NY 10016-5990.

3.1.9 National Board Inspection Code, National Board of Boiler and Pressure Vessel Inspectors Testing, 1055 Crupper Drive, Columbus, OH 43229, (614)888-8320.

3.1.10 American National Standards Institute (ANSI), 1819 L Street, NW, 6th Floor, Washington, DC 20036.

3.2. In these Regulations, all referenced standards mean the most recent edition or version. The referenced standards apply to all ASTs without regard to or limitation by the application or usage of the referenced standard as expected or specified by the publishers of the referenced standards. For example, API 650 expressly applies only to tanks that contain petroleum, but as utilized in these Regulations, API 650 applies to all ASTs. Where there is an irreconcilable conflict between a standard or recommendation published by an industry or professional organization and referenced by these Regulations, and a requirement in these Regulations, the most stringent shall apply and control. Where there is an irreconcilable conflict between standards or

recommendations published by industry or professional organizations and referenced by these Regulations, the most stringent shall apply and control.

3.3. Titles of Documents

3.3.1 American Petroleum Institute (API)

3.3.1.1 RP570, *Piping Inspection Code: Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems*

3.3.1.2 RP620, *Design and Construction of Large, Welded, Low-Pressure Storage Tanks*

3.3.1.3 RP650, Welded Steel Tanks for Oil Storage

3.3.1.4 RP651, *Cathodic Protection of Aboveground Petroleum Storage Tanks*

3.3.1.5 RP653, *Tank Inspection, Repair, Alteration, and Reconstruction*

3.3.1.6 RP12D, *Specification for Field Welded Tanks for Storage of Production Liquid*

3.3.1.7 RP2000, *Venting Atmospheric and Low Pressure Storage Tanks*

3.3.1.8 RP1615, *Installation of Underground Petroleum Storage Systems*

3.3.2 National Association of Corrosion Engineers (NACE)

3.3.2.1 RP0169, *Control of External Corrosion on Underground or Submerged Metallic Piping Systems*

3.3.2.2 RP0193, *External Cathodic Protection of On-grade Carbon Steel Storage Tank Bottoms*

3.3.2.3 RP0294, *Design, Fabrication, and Inspection of Tanks for the Storage of Concentrated Sulfuric Acid and Oleum at Ambient Temperatures*

3.3.3 Underwriters Laboratory, Inc. (UL)

3.3.3.1 UL142, *Steel Aboveground Tanks for Flammable and Combustible Liquids*

3.3.3.2 UL971, *Standard for Nonmetallic Underground Piping For Flammable Liquids*

3.3.3.3 UL2085, *Protected Aboveground Tanks for Flammable and Combustible Liquids*

3.4. National Fire Protection Association (NFPA)

3.4.1 NFPA 30, *Flammable and Combustible Liquids Code*

3.4.2 NFPA 30A, *Automotive and Marine Service Station Code*

3.4.3 NFPA 69, *Standards on Explosion Prevention Systems*

3.4.4 NFPA 704, *Standard for the Identification of the Fire Hazards of Materials for Emergency Response*

3.5. American Society for Non-destructive Testing (ASNT)

3.5.1 SNT-TC-1A, *Personnel Qualifications and Certification in Nondestructive Testing*

3.5.2 ASNT *Central Certification Program Level II*

3.6. Steel Tank Institute (STI)

3.6.1 SP001, *Standard for Inspection of In-Service Shop Fabricated Above Ground Tanks for Storage of Combustible and Flammable Liquid.*

3.7. American Society for Testing and Materials (ASTM)

3.7.1 ASTM D-2517, *Standard Specification for Reinforced Epoxy Resin Gas Pressure Pipe and Fittings*

3.7.2 ASTM D-2996, *Standard Specification for Filament Wound Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe.*

3.7.3 ASTM D-2583, *Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor*

3.8. American Society of Mechanical Engineers (ASME)

3.8.1 RTP-1, *Reinforced Thermoset Plastic Corrosion Resistant Equipment*

3.8.2 ASME, *Boiler and Pressure Vessel Code*

3.9. American National Standards Institute (ANSI)

3.9.1 ANSI 31.1, *Power Piping*

3.9.2 ANSI 31.3, *Process Piping*

3.9.3 ANSI 31.4, *Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols*

3.10. National Board Inspection Code (NBIC)

3.10.1 National Board Inspection Code, Appendix 9, *Repair, Alteration and Inspection of Fiber Reinforced Thermosetting Plastic Pressure Equipment.*

Section 4.

4.1. Registration Requirements

4.1.1 Any Person that owns or operates an AST unless specifically exempted in §1 of this Part shall register each AST with the Department on an AST registration form provided by the Department.

4.1.2 Registration of ASTs shall be renewed annually by payment of registration fees in accordance with Part A, §4.5 of these Regulations, on or before February 1 of every year and until the Department receives a formal notice that the AST has been Removed or Permanently Closed or undergone a Permanent Change in Contents in accordance with these Regulations. *[Amended 2005]*

4.1.3 No Person shall own or operate an AST unless the AST is registered with the Department

4.1.4 Any Person who sells or otherwise transfers ownership of an AST shall notify the new Owner of the AST registration requirements of this Part.

4.1.5 The Owner shall sign and date all AST registration submittals.

4.1.6 The Owner shall notify the Department in writing of any significant change in the information presented on the original registration form including change of address, change of tank ownership, change in tank status, or change in product stored from a Regulated Substance to an unregulated substance at least ten (10) days prior to the change.

4.1.7 Owners may provide notice for multiple ASTs at a single Facility using one AST registration form, but Owners with ASTs located at more than one Facility shall file a separate AST registration form for each Facility.

4.2. Existing ASTs

4.2.1 Owners and Operators shall notify the Department of all existing ASTs that have contained a Regulated Substance on or after January 1, 1992, by completing an AST registration form provided by the Department and submitting the form to the Department by September 5, 2002.

4.3. Change-In-Service and Removal

4.3.1 The Owner and Operator of any AST which would become subject to these Regulations due to a Change-In-Service shall comply with these Regulations before instituting the changed use.

4.3.2 Owners or Operators shall notify the Department on a form provided by the Department prior to Removing, Permanently Closing in Place or making a Change In Service to an AST. The notification form shall be received by the

Department at least ten (10) days prior to beginning the Removal or Permanent Closure in Place or making a Change-In-Service to the AST unless such action is in response to an imminent threat to human health, safety or the environment. *[Amended 2005]*

4.3.3 Removal or Permanent Closure in Place or Change In Service of an AST without required notification of the Department is prohibited. *[Amended 2005]*

4.4. Transfer of Ownership

4.4.1 When a transfer of ownership of an AST occurs, the new Owner shall submit a transfer of ownership form and a completed registration form to the Department so that the Department shall receive these forms no later than thirty (30) days after the transfer.

4.4.2 The seller or former Owner shall at the time of ownership transfer, deliver to the buyer/new Owner all available documents and information relevant to the AST, such as:

4.4.2.1 Regulated Substance storage records;

4.4.2.2 Any approved plans for new installations;

4.4.2.3 Copies of registration forms;

4.4.2.4 Testing data and reports;

4.4.2.5 Reports documenting AST Permanent Closure in Place and Removal; *[Amended 2005]*

4.4.2.6 Tank lining specifications used, if applicable;

4.4.2.7 Monitoring reports;

4.4.2.8 Soil and/or groundwater sampling and laboratory chemical analyses reports

4.4.2.9 Site assessment reports;

4.4.2.10 Equipment maintenance schedules and logs;

4.4.2.11 Repair records.

4.4.3 Any Person who assumes ownership of an AST from a previous registrant shall complete and return to the Department a new registration form and a transfer of ownership form. The new Owner and Operator may operate the AST for no more than 72 hours after assuming ownership without the Department having received the new registration form and a transfer of ownership form.

4.4.4 Any change in the structure of the AST Owner, including but not limited to any change in the corporate form and any change in the form of the business entity, shall constitute a transfer of ownership.

4.5. Registration Fees

4.5.1 On or before February 1 of each calendar year, Owners and Operators of an AST shall submit to the Department an annual per tank registration fee in accordance with Title 7 Del. C., Chapter 74A, *The Jeffrey Davis Aboveground Storage Tank Act,* §7413A.

4.5.2 A registration fee not received by the Department by October 1, 2002 or by February 1 thereafter is subject to a late charge of 10% of the total fee.

4.5.3 Registration Fee Schedule

Tank Size	Yearly Fee
12,499 – 39,999 gallons	$300.00
40,000 gallons and greater	$750.00

4.5.4 No annual registration fee will be required if an AST is Removed or Permanently Closed in Place or undergoes a Permanent Change in Contents from a Regulated Substance to a non-regulated substance prior to the February 1 deadline for payment of the registration fee. To qualify for this exemption, the Owner and Operator of the AST shall comply with the notification and Removal or Permanent Closure in Place or Permanent Change in Contents requirements of these Regulations. *[Amended 2005]*

4.6. Retrofitting or Upgrading of ASTs

4.6.1 AST Owners and Operators shall notify the Department of all Retrofits or Upgrades of an AST on a form provided by the Department at least ten (10) days prior to beginning the Retrofit or Upgrade work.. *[Amended 2005]*

4.6.2 If within the ten (10) day period, the required notification to the Department is completely satisfied, the Retrofit or Upgrade construction may proceed without waiting for the expiration of the 10 days. *[Amended 2005]*

4.6.3 If within sixty (60) days after initial notification to the Department work has not commenced, a new registration form shall be submitted to the Department.

Section 5. Alternative Procedures Approval Requirements

5.1. The Owner and Operator of an AST subject to the provisions of these Regulations may request in writing a determination from the Department that any requirement of these Regulations shall not apply to such AST, and shall request approval of an alternative procedure as required.

5.2. The Department in its discretion may approve alternative procedures or technology or a combination of alternative procedures or technologies not specified in the Regulations if the following requirements are met. The requirements shall be submitted in writing and shall set forth as a minimum the following information:

5.2.1 Name and location of the Facility and the specific AST(s) for which an alternative procedure is sought;

5.2.2 The specific provision of the Regulations for which an alternative procedure is sought;

5.2.3 The contents of the AST;

5.2.4 The basis for the alternative procedure, including but not limited to the technical difficulties that would result from compliance with the established provision;

5.2.5 The alternative procedure or technology for which approval is sought; and

5.2.6 Documentation that demonstrates that the alternative procedure or technology meets or exceeds the performance standard for approved technologies and that the alternative procedure or technology offers a no less stringent degree of protection for human health, safety or the environment as would the requirements specifically established in these Regulations.

5.3. The Department will provide a written response to all requests for alternative technology approvals. The request may be denied, approved or approved with conditions. If the technology or procedure or a combination of technologies or procedures is approved, the Owner and Operator shall comply with any conditions imposed by the Department on its use to ensure the protection of human health, safety or the environment.

5.4. In the case of a denial of a request under this Section the Department will respond to the request stating the justification for the denial.

Section 6. Information Access

6.1. For the purpose of developing or assisting in the development of a standard regulation or of enforcement of these Regulations, an Owner and Operator shall, upon the request of a duly designated officer or employee of the State designated by the Secretary of the Department, furnish information relating to the tank and/or its contents and shall permit the designated officer or employee at all reasonable times to have access to and to copy all records relating to the tank or its contents and to conduct monitoring or require remediation activities, pursuant to Title 7 Del. C., Chapter 74A, *The Jeffrey Davis Aboveground Storage Tank Act,*§7406A, which the designated officer or employee deems necessary. For the purpose of developing or assisting in the development of a standard or regulation or enforcement of these Regulations, the designated officer or employee is authorized to:

6.1.1 enter at reasonable times the Facility or other place where an AST or its records are located. The Owner and Operator shall permit unannounced inspections of tanks pursuant to these Regulations;

6.1.2 inspect and obtain samples of Regulated Substances from any Person and to conduct monitoring of tanks, contents, or surrounding soils, water, and/or air. An inspection shall be commenced and completed with reasonable promptness.

6.2. In submitting data under Title 7 Del. C., Chapter 74A, *The Jeffrey Davis Aboveground Storage Tank Act,* and these Regulations, a Person required to provide such data may:

6.2.1 designate the data which the Owner and Operator believe is entitled to protection as business or corporate property; and

6.2.2 submit such designated data separately from other data submitted under these Regulations.

6.3. Any such records, reports or information obtained shall be entitled to protection under United States Code Title 18 §1905, *Disclosure of confidential information generally.*

6.4. Any information submitted to the Department in which a confidential business information designation is requested shall be subject to Part A §9 of these Regulations and the *Freedom of Information Act Regulations* adopted Pursuant to 29 Del.C., Chapter 100 as amended.

Section 7. Release Preparedness Plan and Release Intervention

7.1. Release Preparedness

7.1.1 The AST Owner or Operator shall prepare a Release Preparedness Plan by June 11, 2005 for Releases from ASTs at the Facility. A copy shall be kept at the Facility at all times and be made immediately available to the Department upon request. The Plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden Release of a Regulated Substance to soil, surface water or ground water. The Plan shall contain the following information: *[Amended 2005]*

7.1.1.1 A Facility map showing the location of buildings, ASTs and their stored products, and site utilities.

7.1.1.2 Emergency contact phone numbers (i.e. fire, police, DNREC, USCG, hospitals, environmental contractors).

7.1.1.3 The general location of area receptors and points of exposure such as natural resources, surface water bodies, public and private supply wells, and residential communities.

7.1.1.4 Fire, explosion and health and safety contingencies.

7.1.1.5 Contaminated soil excavation, staging, treatment and disposal contingencies.

7.1.1.6 Regulated Substance removal, containment and recovery contingencies.

7.1.1.7 The Plan shall include the actions Facility personnel shall take to respond to fires, explosions or any unplanned sudden or non-sudden Release of a Regulated Substance to air, soil or surface water at the Facility.

7.1.1.8 The Plan shall list names, addresses, and office phone numbers of all persons qualified to act as emergency coordinator and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. A Facility emergency coordinator shall be available to respond at all times.

7.1.1.9 The Plan shall include a list of all emergency equipment at the Facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list shall be kept up to date. In addition, the Plan shall include the

location and a physical description of each item on the list and a brief outline of its capabilities.

7.1.1.10 The Plan shall include an evacuation plan for Facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes in cases where the primary routes could be blocked.

7.1.2 A Release Preparedness Plan formulated under the direction of another local, State or federal program or a Facility emergency or operational plan that meets the objectives of this Section may be accepted by the Department as proof of compliance with this Section.

7.1.3 The Release Preparedness Plan shall be reviewed and amended if:

7.1.3.1 Applicable regulations are revised.

7.1.3.2 The Plan fails after a Release.

7.1.3.3 The Facility changes its design or operations.

7.1.3.4 The list of emergency coordinators changes.

7.2. Release Intervention

7.2.1 The Department may assume control of any Release when it is determined that the Owner or Operator is not responding in accordance with the Regulations and Title 7 Del. C., Chapter 74A, *The Jeffrey Davis Aboveground Storage Tank Act*. All Release liability will remain with the Owner or Operator. The Department may recover all Release response intervention costs from the Owner and Operator and initiate enforcement action as necessary to achieve regulatory compliance.

Section 8. Release and Leak Documentation, Response and Confirmation

8.1. Release Documentation, Response and Confirmation

8.1.1 No Person shall knowingly allow any Release of a Regulated Substance from an AST to continue. Owners and Operators shall take immediate action to contain any Release so as to minimize the environmental impact of the Release and to immediately identify and mitigate fire, explosion and vapor hazards.

8.1.2 A Release of a Regulated Substance from an AST in excess of the reportable quantities specified in the regulations promulgated pursuant to Title 7 Del. C., Chapter 60, §6028, the *Delaware Regulations Governing the Reporting of a Discharge of a Pollutant or an Air Contaminant*, as amended, shall be reported to the Department in accordance with the requirements of Title 7 Del. C., Chapter 60 and the Regulations promulgated thereunder as amended.

8.1.3 Documentation on the routine in-service inspection report shall be made at the time of discovery of any Release or a suspected Release of a Regulated Substance from an AST in an amount less than the reportable quantities specified in the regulations promulgated pursuant to Title 7 Del. C., Chapter 60, §6028, the *Delaware Regulations Governing the Reporting of a Discharge of a Pollutant or an Air Contaminant*, as amended, that impacts soil, groundwater, or surface water outside a Secondary Containment area. If the commencement of cleanup activities cannot begin within 24 hours of discovery and cannot be completed within 7 days, the routine in-service inspection report shall be sent to the Tank Management Branch via fax or electronic mail.

8.1.4 When documenting a Release or a suspected Release from an AST the Owner and Operator shall describe:

8.1.4.1 The chemical name or identity of any substance involved in the Release or suspected Release and the approximate quantity released;

8.1.4.2 The Facility location and the Release or suspected Release location at the Facility;

8.1.4.3 The medium or media into which the Release or suspected Release occurred (i.e., soil, groundwater, surface water);

8.1.4.4 Possible impacted area receptors (i.e., surface water, wells, utilities, basements);

8.1.4.5 All corrective actions undertaken.

8.1.5 A suspected Release includes but is not limited to the following:

8.1.5.1 The discovery of released Regulated Substance in the area surrounding an AST, such as the presence of stained soils, vapors in soils,

basements or utility lines, free product or dissolved product discovered in Monitor wells or water-supply wells, or sheens observed on surface water bodies; or

8.1.5.2 The occurrence of unusual operating conditions observed by the Owner and Operator, such as the sudden loss of Regulated Substance, erratic behavior of a Regulated Substance Dispensing System, unless the AST is found to be defective but not leaking and is immediately repaired or replaced; or

8.1.5.3 AST monitoring results from a Leak Detection method or Release detection equipment unless either:

8.1.5.3.1. an equipment failure can be demonstrated and the faulty equipment is immediately repaired or replaced and additional monitoring does not confirm the initial result; or

8.1.5.3.2. in the case of inventory control, a second month of data does not confirm the initial result.

8.1.5.4 The presence of a Regulated Substance, or a signal from a Leak Detection device, or a laboratory report that shows the sample removed from an observation tube or Monitor well, or soil/water samples removed from an AST excavation contains a Regulated Substance, shall be evidence of a Release unless the responsible party affirmatively proves that no Release has occurred.

8.1.6 Upon an indication of a suspected Release of a Regulated Substance from an AST, the Owner and Operator shall immediately investigate and within seven (7) days confirm whether or not a Release has occurred. Actions may include but are not limited to:

8.1.6.1 Performing a visual inspection of all exposed portions of the AST including but not limited to: the storage tank, piping, loading rack, Dispensing System and ancillary equipment, and surrounding containment areas and ground surfaces;

8.1.6.2 Checking inventory records for discrepancies;

8.1.6.3 Checking Release detection monitoring devices;

8.1.6.4 Checking Monitor Wells;

8.1.6.5 Testing system components, including but not limited to: storage tank bottoms, and Underground Piping and equipment, for tightness or integrity; Owners and Operators shall repair, replace or Upgrade the AST, and begin corrective action in accordance with Part E of these Regulations if the test results of the AST indicate that a Leak exists. Owners and Operators shall conduct a site check if the test results for

the AST do not indicate that a Leak exists but environmental contamination is the basis for suspecting a Release; *[Amended 2005]*

8.1.6.6 Owners and Operators shall measure for the presence of a Release where contamination is most likely to be present at the AST site. In selecting sample types, sample locations, and measurement methods, Owners and Operators shall consider the nature of the stored substance, the type of initial alarm or cause for suspicion, type of backfill, the depth of ground water, and other factors appropriate for identifying the presence and source of the Release. Site check for the presence of a Release may be conducted by the use of: Monitor Wells, analysis of soil samples, vapor monitoring (soil gas survey) methods or other methods; and

8.1.6.7 Complete other actions as necessary to confirm the Release.

8.1.7 Within 24 hours of confirming a suspected Release of a Regulated Substance from an AST, Owners and Operators shall take immediate action according to this Section.

8.1.8 If a Release, other than those that can comply with §8.1.3 of this Part, is confirmed, the requirements of Part E of these Regulations shall be followed, unless the Owner and Operator is directed to do otherwise by the Department.

8.2. Leak Documentation, Response and Confirmation

8.2.1 No Person shall knowingly allow any Leak of a Regulated Substance from an AST to continue.

8.2.2 A Leak of a Regulated Substance in a quantity less than the reportable quantities specified in the regulations promulgated pursuant to Title 7 Del. C., Chapter 60, §6028, the *Delaware Regulations Governing the Reporting of a Discharge of a Pollutant or an Air Contaminant,* as amended, inside the Secondary Containment area or that does not impact soil, groundwater, or surface water, and cannot be cleaned up within (7) seven days shall be reported to the Tank Management Branch as soon as possible but in no instance shall reporting exceed (7) seven days from the time of discovery. Reporting may be made in person or by telephone or by electronic mail.

8.2.3 Documentation of the Leak and the calculations of how the amount leaked was determined shall be maintained by the Owner and Operator at the Facility for the operational life of the AST.

8.2.4 Actions to prevent a reoccurrence of the Leak and actions to mitigate evidence of a Leak shall be initiated within 30 days. These actions shall include but are not limited to:

8.2.4.1 Repairing or replacing defective equipment or;

8.2.4.2 Modifying operating procedures or;

8.2.4.3 Retraining employees.

8.2.5 Evidence from a Leak on Secondary Containment surfaces other than soil, shall be mitigated by mechanical and/or chemical means that do not compromise the impermeability of the Secondary Containment and which permit potential future Leaks to be readily discernible from evidence of previous Leaks.

8.2.6 Evidence from Leaks on the Secondary Containment surfaces comprised of soil shall be eliminated by excavating all impacted soils or a means by which a new stain is easily detectable and which does not compromise the impermeability of the Secondary Containment. Any area that is excavated shall be backfilled with a material of equal or superior impermeability.

Section 9. Submittal Of Confidential Information

9.1. Any claim of confidentiality as to the name and address of applicants on any registration or notification forms will be denied.

9.2. A business confidentiality claim shall be asserted at the time of submission of the information or at the first opportunity provided, and shall be asserted by a Person claiming confidentiality, or the Department may release the information without further notice to the Person. Business information is entitled to confidential treatment if:

9.2.1 The business has asserted a business confidentiality claim which has not expired by its terms, nor been waived nor withdrawn, and

9.2.2 The business has satisfactorily shown that it has taken reasonable measures to protect the confidentiality of the information and that it intends to continue to take such measures, and

9.2.3 The information is not, nor has been, reasonably obtainable without the business' consent by other Persons (other than governmental bodies) by the use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding), and

9.2.4 No statute specifically requires disclosure of the information, and

9.2.5 The business has satisfactorily shown that disclosure is likely to cause substantial harm to its competitive position or the information is voluntarily submitted and its disclosure would likely impair the Department's ability to obtain necessary information in the future.

9.3. Any information to which this Section applies, which may be entitled to confidential treatment as determined by the Department, may be released upon request to the United States Environmental Protection Agency (EPA).

9.4. Any information submitted to the Department in which a confidential business information designation is requested shall be subject to the *Freedom of Information Act Regulations* adopted Pursuant to 29 Del.C., Chapter 100 as amended.

Section 10. Signage Requirements

10.1. All ASTs having a capacity greater than 250 gallons and containing a Regulated Substance other than diesel, Heating Fuel or kerosene and all ASTs having a capacity greater than 19,999 gallons and containing diesel, Heating Fuel or kerosene shall be labeled using the hazard rating system in accordance with NFPA 704, *Standard for the Identification of the Fire Hazards of Materials for Emergency Response.*

10.2. All ASTs having a capacity greater than 250 gallons and containing a Regulated Substance other than diesel, Heating Fuel or kerosene and all ASTs having a capacity greater than 19,999 gallons and containing diesel, Heating Fuel or kerosene shall be labeled with the word "Empty" if the tank contents have been removed.

10.3. All ASTs having a capacity greater than 250 gallons and containing a Regulated Substance other than diesel, Heating Fuel or kerosene and all ASTs having a capacity greater than 19,999 gallons and containing diesel, Heating Fuel or kerosene shall be labeled with the name of the tank contents or the name of the chemical family associated with the tank contents.

10.4. All ASTs that are required to have a label in accordance with the Requirements of this Section shall be appropriately labeled by February 1, 2006.

[Section 10 added 2005]

PART B.

INSTALLATION AND UPGRADE REQUIREMENTS FOR NEW AND EXISTING ASTs

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Section 1. General Requirements for All New ASTs and AST Relocations

1.1. AST Owners and Operators shall notify the Department at least sixty (60) days prior to installation of all proposed New ASTs or Relocated ASTs used for storing Regulated Substances. Notice shall specify as a minimum: *[Amended 2005]*

1.1.1 the date of installation;

1.1.2 location including the address and a plan view dimensioned drawings of the Facility of sufficient detail to locate the ASTs with respect to the property lines and buildings or other structures located on the property and showing the relation of the AST to the site and the site to the surrounding area;

1.1.3 type of AST and piping Leak Detection system;

1.1.4 description of the Regulated Substance to be stored including CAS registry number or numbers if available;

1.1.5 type of overfill protection device;

1.1.6 detail showing the proposed method of Secondary Containment;

1.1.7 the design of the proposed Cathodic Protection System, if applicable;

1.1.8 description of the AST(s) to be installed, including dimensions, capacity, material of construction, manufacturer's name and address, model number, supplier's name and address, and any other information that completely describes the AST;

1.1.9 description of piping to be used, including Pipe diameters, materials, connections, and piping diagrams, as applicable;

1.1.10 any other information that will accurately convey the intended AST configuration.

1.2. No new ASTs shall be constructed of wood or concrete after the effective date of these Regulations.

1.3. Upon notification by the AST Owner and Operator, a review by the Department of the notification and accompanying documents shall be made for compliance with the requirements for New ASTs or Relocated ASTs as applicable. *[Amended 2005]*

1.3.1 A formal letter of approval or denial of the installation shall be issued by the Department to the Owner and Operator within sixty (60) days of the Department's receipt of the installation notification and supporting documentation as specified in §1.1 of this Part.

1.3.2 If a denial is issued, all required corrections and compliance with the New AST requirements or Relocated AST requirements, as applicable, shall be met before the installation can be approved. *[Amended 2005]*

1.3.3 If within the sixty (60) day notification period, the Department or its designee issued a formal letter of approval, the installation of the AST may begin.

1.4. Approval letters shall be posted at the construction site at the Facility where the New AST installation or AST Relocation is in progress. *[Amended 2005]*

1.5. During construction, an Owner and Operator shall not cause or allow a substantial design change which is not in accordance with the approved plans and all terms and conditions of the Department's approval.

1.6. The design engineer of record shall approve in writing any and all substantial design changes and resubmit to the Department for formal approval.

1.7. A formal approval of installation shall be valid for one year from the date of approval. If construction of the AST is not initiated within one year of issuance of the Department's letter of approval, the approval shall lapse. For the purpose of this rule, initiated shall mean construction equipment commonly used in Facility or AST construction has been mobilized to the site and that materials used in the construction of the Facility or AST have been delivered to the site and construction has begun.

1.8. Department approval for installation of an AST shall not eliminate the need to obtain applicable approvals and/or permits from the authority(ies) enforcing the State Fire Prevention Regulations, local building codes or other State or Federal laws or regulations.

1.9. The Department shall assess a one-time construction permit fee for a New AST based on the schedule below for an AST constructed after the effective date of the Regulations promulgated pursuant to Title 7 Del.C., Chapter 74A, *The Jeffrey Davis Aboveground Storage Tank Act,* §7414A. Any Person required to pay a fee under Title 16 Del.C., Chapter 66, *Fire Prevention*, to the State Fire Marshal related to an AST shall receive a 10% reduction in the construction permit fee. *[Amended 2005]*

Construction Fee Schedule

Tank Size	Construction Permit Fee
12,499 - 39,999 gallons	$1,500.00
40,000 gallons and greater	$3,750.00

Section 2. Design and Construction Requirements for New Metallic Field-Constructed ASTs

2.1. All New metallic Field-Constructed ASTs that will contain Regulated Substances shall:

2.1.1 Be of welded construction.

2.1.2 Meet or exceed the following design or manufacturing standards, as applicable:

2.1.2.1 API Standard 620, *Design and Construction of Large, Welded, Low-Pressure Storage Tanks;*

2.1.2.2 API Standard 650, *Welded Steel Tanks for Oil Storage;*

2.1.2.3 API Standard 12D, *Specification for Field Welded Tanks for Storage of Production Liquids;*

2.1.2.4 NACE RP0294; *Design, Fabrication, and Inspection of Tanks for the Storage of Concentrated Sulfuric Acid and Oleum at Ambient Temperatures;*

2.1.2.5 NFPA 30, *Flammable and Combustible Liquids Code;*

2.1.2.6 Other standards approved by the Department.

2.2. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall have a suitable foundation capable of supporting the AST full of product or the test media without excessive differential settlement as defined in API 653. The foundation design and construction shall be based on sound engineering practices. The foundation design shall provide positive drainage of water away from the base. ASTs located in areas subject to flooding shall be protected from flotation.

2.3. All metallic Field-Constructed ASTs installed after the effective date of these Regulations with tank bottoms in contact with soil shall be protected from corrosion in accordance with §5 of this Part.

2.4. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall be placed on a Release Prevention Barrier. The integrity of the Release Prevention Barrier shall not deteriorate due to exposure to the elements or soil in the presence of Regulated Substances. The following are acceptable Release Prevention Barriers:

2.4.1 An Impervious soil layer or geosynthetic clay liner with a permeability of 1×10^{-7} cm/sec or less; or

2.4.2 An Impervious geosynthetic liner installed in accordance with manufacturer's recomendations such as a 60 mil unreinforced liner, 40 mil reinforced liner, or a material of similar or more stringent specifications that is compatible with the Regulated Substance being stored; or

2.4.3 A double bottom with Leak Detection Monitoring for the presence of Regulated Substance leakage; or

2.4.4 An Impervious concrete slab foundation.

2.5. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall have Secondary Containment installed in accordance with §7 of this Part.

2.6. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall have base line data including:

2.6.1 Floor and wall/shell thickness measurements which shall be kept on file by the Owner for the life of the AST and which shall be made available to the Department upon request.

2.6.2 Material certifications which shall be kept on file by the Owner for the life of the AST and which shall be made available to the Department upon request.

2.7. A report including the welding procedures, welding certification reports, and any non-destructive testing performed on the AST shall be kept on file by the Owner for the life of the AST and which shall be submitted to the Department prior to placing the AST in service.

2.8. All metallic Field-Constructed ASTs installed after the effective date of these Regulations constructed for the purpose of storing sulfuric acid or Spent Acid or Spent Caustic or other Regulated Substances with similar corrosive properties, shall be subject to additional design consideration including but not limited to NACE Standard RP0294, material compatibility, coating requirements and additional non-destructive examination (NDE).

2.9. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall provide a method of Leak Detection in accordance with §9 of this Part.

2.10. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall be equipped with an overfill prevention and spill containment system in accordance with §8 of this Part.

2.11. All ASTs regulated under this Section shall be equipped with normal and emergency venting in accordance with API 2000 and NFPA 30.

2.12. All metallic Field-Constructed ASTs installed after the effective date of these Regulations shall be inspected and tested in accordance with API 650 before being placed in service.

2.13. All exposed exterior surfaces of all metallic Field-Constructed ASTs installed after the effective date of these Regulations shall be protected from corrosion.

2.14. The completed installation of all metallic Field-Constructed ASTs installed after the effective date of these Regulations is to be inspected and certified by a Certified API 653 Inspector.

Section 3. Design and Construction Requirements for New Metallic Shop-Fabricated ASTs

3.1. All new metallic Shop-Fabricated ASTs that will contain Regulated Substances shall meet or exceed the following design or manufacturing standards, as applicable:

3.1.1 UL 2085, *Protected Aboveground Tanks for Flammable and Combustible Liquids;*

3.1.2 UL 142, *Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids;*

3.1.3 API 650 Appendix J, *Shop-Assembled Storage Tanks;*

3.1.4 NFPA 30, Flammable and Combustible Liquids Code;

3.1.5 ASME, *Boiler & Pressure Vessel Code, Section VIII, Division 1, Design & Fabrication of Pressure Vessels;*

3.1.6 Other standards approved by the Department.

3.2. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall have a suitable foundation capable of supporting the AST full of Regulated Substance or the test media without excessive differential settlement as defined in API 653 or manufacturer's recommendation. The foundation design and construction shall be based on sound engineering practices. The foundation design shall provide positive drainage of water away from the base. ASTs located in areas subject to flooding shall be protected from flotation.

3.3. All metallic Shop Fabricated ASTs installed after the effective date of these Regulations with tank bottoms in contact with soil shall be protected from corrosion in accordance with §5 of this Part.

3.4. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall be placed on a Release Prevention Barrier. The integrity of the Release Prevention Barrier shall not deteriorate due to exposure to the elements or soil in the presence of Regulated Substances. The following are acceptable Release Prevention Barriers:

3.4.1 An Impervious soil layer, or geosynthetic clay liner with a permeability of $1x10^{-7}$ cm/sec or less; or

3.4.2 An Impervious geosynthetic liner installed in accordance with manufacturer's recommendations such as a 60 mil unreinforced liner, 40 mil reinforced liner, or a material of similar or more stringent specifications that is compatible with the Regulated Substance being stored; or

3.4.3 A double bottom or double wall with Leak Detection Monitoring for the presence of Regulated Substance leakage; or

3.4.4 An Impervious concrete slab foundation; or

3.4.5 An AST that is in a saddle or other suitable support may utilize steel containment.

3.5. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall have Secondary Containment installed in accordance with §7 of this Part.

3.6. Installation of all metallic Shop-Fabricated ASTs installed after the effective date of these Regulations constructed for the purpose of storing sulfuric acid, Spent Acid or Spent Caustic or other Regulated Substances with similar corrosive properties shall be subject to additional design consideration including but not limited to NACE Standard RP0294, material compatibility, coating requirements and additional non-destructive examination (NDE).

3.7. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall provide a method of Leak Detection in accordance with §9 of this Part.

3.8. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall be equipped with an overfill prevention and spill containment system in accordance with §8 of this Part.

3.9. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall be equipped with normal and emergency venting in accordance with API 2000, NFPA 30, UL 142 and UL 2085, as applicable.

3.10. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall be tested in accordance with industry standards and manufacturer's recommendations before being placed in service.

3.11. All exposed exterior surfaces of all metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall be protected from corrosion.

3.12. The completed installation of every metallic Shop-Fabricated AST installed after the effective date of these Regulations is to be inspected and certified by an inspector familiar with Shop-Fabricated ASTs such as certified STI-SP001 Inspectors and qualified by experience for such inspections.

3.13. All metallic Shop-Fabricated ASTs installed after the effective date of these Regulations shall have base line data including:

3.13.1 Floor and wall/shell thickness measurements which shall be kept on file by the Owner for the life of the AST and which shall be made available to the Department upon request.

3.13.2 Material certifications which shall be kept on file by the Owner for the life of the AST and which shall be submitted to the Department prior to placing the AST in service.

3.13.3 A report including the welding procedures, welding certification reports, and any non-destructive testing performed on the AST shall be kept on file by the Owner for the life of the AST and which shall be submitted to the Department prior to placing the AST in service.

Section 4. Design and Construction Requirements for New Non-Metallic Shop-Fabricated and Field-Constructed ASTs

4.1. All New non-metallic ASTs shall be designed, fabricated, inspected, stamped and installed in accordance with ASME, RTP-1 *Reinforced Thermoset Plastic Corrosion Resistant Equipment.*

4.2. No New ASTs may be constructed of wood or concrete after the effective date of these Regulations.

4.3. Flammable substances shall not be stored in non-metallic ASTs without specific approval from the Department.

4.4. All non-metallic ASTs installed after the effective date of these Regulations shall have a suitable foundation capable of supporting the AST full of Regulated Substance or the test media without excessive differential settlement as defined in API 653 or manufacturer's recommendations. The foundation design and construction shall be based on sound engineering practices. The foundation design shall provide positive drainage of water away from the base. ASTs located in areas subject to flooding shall be protected from flotation.

4.5. All non-metallic ASTs installed after the effective date of these Regulations shall be placed on a Release Prevention Barrier. The integrity of the Release Prevention Barrier shall not deteriorate due to exposure to the elements or soil in the presence of Regulated Substances. The following are acceptable Release Prevention Barriers:

4.5.1 An Impervious soil layer,or geosynthetic clay liner with a permeability of $1x10^{-7}$ cm/sec or less; or

4.5.2 An Impervious geosynthetic liner installed in accordance with manufacturer's recommendations such as a 60 mil unreinforced liner, 40 mil reinforced liner, or a material of similar or more stringent specifications and that is compatible with the Regulated Substance being stored; or

4.5.3 A double bottom or double wall with Leak Detection monitoring for the presence of Regulated Substance leakage; or

4.5.4 An Impervious concrete slab foundation.

4.6. All non-metallic ASTs installed after the effective date of these Regulations shall have Secondary Containment installed in accordance with §7 of this Part.

4.7. All non-metallic ASTs installed after the effective date of these Regulations shall have base line data including:

4.7.1 Floor and wall/shell thickness measurements which shall be kept on file by the Owner for the life of the AST and which shall be made available to the Department upon request.

4.7.2 Material certifications which shall be kept on file by the Owner for the life of the AST and which shall be submitted to the Department prior to placing the AST in service.

4.8. Installation of all non-metallic ASTs installed after the effective date of these Regulations constructed for the purpose of storing sulfuric acid, Spent Acid or Spent Caustic or other Regulated Substances with similar corrosive properties shall be subject to additional design consideration including but not limited to NACE Standard RP0294, material compatibility, coating requirements and additional non-destructive examination (NDE).

4.9. All non-metallic ASTs installed after the effective date of these Regulations shall provide a method of Leak Detection in accordance with §9 of this Part.

4.10. All non-metallic ASTs installed after the effective date of these Regulations shall be equipped with an overfill prevention and spill containment system in accordance with §8 of this Part.

4.11. All non-metallic ASTs installed after the effective date of these Regulations shall be equipped with normal and emergency venting in accordance with API 2000 and NFPA 30.

4.12. All non-metallic ASTs installed after the effective date of these Regulations shall be tested in accordance with industry standards and manufacturer's recommendations before being placed in service.

4.13. All exposed exterior surfaces of non-metallic ASTs installed after the effective date of these Regulations shall be protected from corrosion or deterioration.

4.14. The completed installation of all non-metallic ASTs installed after the effective date of these Regulations shall be inspected in accordance with ASME RTP-1 and the NBIC, Appendix 9.

Section 5. Design and Installation Requirements for Cathodic Protection Systems for ASTs

5.1. General Requirements

5.1.1 New metallic ASTs installed on foundations consisting of sand, soil or other material that can allow moisture penetration and corrosion, shall install a Cathodic Protection System to mitigate external corrosion of the tank bottom.

5.1.2 A Cathodic Protection System for the external bottom of a New or Existing metallic AST shall be designed, installed, inspected and maintained to meet or exceed the requirements of the most recent edition of the following industry standards as applicable: *[Amended 2005]*

5.1.2.1 NACE Standard RP0193 - *External Cathodic Protection of On-Grade Carbon Steel Storage Tank Bottoms;*

5.1.2.2 API Recommended Practice 651 - *Cathodic Protection of Aboveground Petroleum Storage Tanks;*

5.1.2.3 NACE Standard RP0169,*Control of External Corrosion on Underground or Submerged Metallic Piping Systems.*

5.2. Qualifications of Personnel

5.2.1 Cathodic Protection Systems shall be designed by individuals who have obtained a NACE Cathodic Protection Level 3 Certification and have relevant work experience in the design of Cathodic Protection Systems for ASTs.

5.3. Design and Installation

5.3.1 Cathodic Protection Systems shall be installed and operating within one year after installation.

5.3.2 Each Cathodic Protection System shall be designed and installed with test stations or other methods to enable the Owner or Operator to monitor the operation of the Cathodic Protection System.

5.3.3 Consideration for monitoring the cathodic protection status of the underside of the AST bottom shall be provided for in the design.

5.3.4 Cathodic Protection Systems shall be designed to provide corrosion protection for the expected active life of the AST or have provisions to allow for the periodic rehabilitation of the Cathodic Protection System.

5.3.5 After installation of a Sacrificial Anode System, measurements of AST- to- soil potential shall be made no sooner than sixty (60) days and no later than 180 days after installation of the Cathodic Protection System. If inadequate cathodic

protection is indicated, the cause shall be determined, and necessary repairs shall be made within ninety (90) days, or other schedule approved by the Department, in accordance with one of the industry standards referenced in §5.1.2 of this Part.

5.4. Cathodic Protection Criteria

5.4.1 The criteria for determining the effectiveness of cathodic protection shall be as indicated in NACE Standard RP0193.

Section 6. Design, Construction, and Repair Requirements for Underground Piping

6.1. New Underground Piping – General Requirements

6.1.1 All Underground Piping installed after the effective date of these Regulations shall comply with the requirements of this Section.

6.1.2 All Underground Piping, fittings and connections that are either in contact with the Regulated Substance or completely buried shall:

6.1.2.1 Be constructed of fiberglass reinforced epoxy, carbon steel, thermoplastic material extrusions, stainless steel, or galvanized steel; or

6.1.2.2 Be constructed of other materials as approved by the Department.

6.1.3 All Underground Piping and piping Secondary Containment materials shall be compatible with the Regulated Substance that is to be stored in the AST.

6.1.4 The Underground Piping layout shall be designed to minimize crossed lines and interference with conduit and other AST components. If crossing of lines is unavoidable, adequate clearance shall be provided to prevent contact.

6.1.5 All fill pipes leading to a pump-filled AST shall be equipped with a properly functioning check valve or equivalent device which provides automatic protection against backflow whenever the piping arrangement of the fill pipe is such that backflow from the AST is possible.

6.1.6 Each AST connection through which a Regulated Substance can normally flow shall be equipped with an operating isolation valve to control flow unless the AST connection is located at a point higher than the highest liquid level in the AST, such as at the top of a horizontal AST. The valve shall be located on a nozzle welded to the shell of the AST.

6.1.7 Pipe joints shall be cut accurately and deburred to provide liquid-tight seals. No threaded or flanged connections shall be in contact with the soil.

6.1.8 New Underground Piping systems shall be designed, constructed, and installed with access and isolation points to permit pressure testing of piping without the need for excavation.

6.1.9 Copper or brass tubing or malleable iron shall not be used in AST Underground Piping.

6.1.10 All new Underground Piping shall be tested in accordance with API 570 prior to introduction of Regulated Substance into the piping.

6.1.11 Metallic Underground piping that penetrates earthen or concrete dike walls or other structures shall be sleeved and electrically isolated from the sleeve.

6.2. New Non-Metallic Underground Piping

6.2.1 New Non-metallic Underground Piping shall be designed and constructed in accordance with:

6.2.1.1 ASTM Specification D-2996, *Standard Specification for Filament Wound RTRP;* and

6.2.1.2 UL 971, *Standard for Nonmetallic Underground Piping for Flammable Liquids.*

6.2.2 The ultimate shear strength of all adhesive and curing agents shall be in compliance with ASTM D-2517, as approved and supplied by the manufacturer.

6.2.3 Thermoplastic extrusion flexible Underground Piping shall be designed and constructed in accordance with:

6.2.3.1 UL 971, *Standard for Nonmetallic Underground Piping for Flammable Liquids.*

6.2.4 Other non-metallic Underground Piping may be approved by the Department.

6.3. New Steel Underground Piping

6.3.1 New Steel Underground Piping:

6.3.1.1 shall be standard weight or heavier; and

6.3.1.2 shall be installed in accordance with:

6.3.1.2.1. API Recommended Practice 1615, *Installation of Underground Petroleum Storage Systems;* and

6.3.1.2.2. ANSI 31.1, *Power Piping;* and

6.3.1.2.3. ANSI 31.3 *Process Piping;* and

6.3.1.2.4. ANSI 31.4, *Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols;* and

6.3.1.3 shall have a protective coating and be cathodically protected in accordance with § 6.5 of this Part; or

6.3.1.4 shall have non-metallic Secondary Containment; or

6.3.1.5 shall have metallic Secondary Containment that shall have protective wrapping or dielectric coating and shall be cathodically protected by an Impressed Current System or Sacrificial Anode System unless the

metallic secondary containment is not in contact with the soil and is in a non-corrosive environment; or

6.3.1.6 shall not require the addition of cathodic protection if the steel Underground Pipe is not in contact with the soil and is in a non-corrosive environment.

6.4. New Other Metallic Underground Piping

6.4.1 Metallic Underground Piping other than steel shall:

6.4.1.1 be schedule 40 or heavier thickness; and

6.4.1.2 be approved by the Department prior to installation.

6.5. Corrosion Protection for New Steel Underground Piping

6.5.1 Cathodic protection for steel Underground Piping in contact with the soil shall:

6.5.1.1 consist of a Sacrificial Anode System or an Impressed Current System designed, fabricated, and installed in accordance with nationally recognized standards including but not limited to API RP651, and NACE RP-0169; and

6.5.1.2 have a Cathodic Protection System designed by individuals who have obtained a NACE Cathodic Protection Level 3 Certification and have relevant work experience in the design of Cathodic Protection Systems for Underground Piping; and

6.5.1.3 be designed to provide corrosion protection for the expected active life of the AST system or have provisions to allow for the periodic rehabilitation of the Cathodic Protection System; and

6.5.1.4 have a test station or other method of monitoring which enables the Operator to confirm that the Cathodic Protection System is operating properly.

6.5.2 After installation of a Sacrificial Anode System, measurements of Underground Pipe-to-soil potential shall be made no sooner than sixty (60) days and no later than 180 days after installation of the Cathodic Protection System. If inadequate cathodic protection is indicated, the cause shall be determined, and necessary repairs shall be made within ninety (90) days or other schedule approved by the Department in accordance with one of the industry standards referenced in §5.1.2 of this Part.

6.6. Requirements for Backfill Material for New Underground Piping Installations

6.6.1 Backfill material adjacent to the Underground Piping shall consist of sand or pea gravel. The material shall be clean, washed, inert, free flowing, homogeneous, well granulated, non-corrosive, and free of debris, rock, ice, snow or organic material. Particle length shall be no more than 3/8-3/4" in size and shall comply with the manufacturer's specifications. Mixing of the backfill adjacent to the Underground Pipe with native substance and/or foreign objects is prohibited.

6.7. Repair Requirements for Underground Piping

6.7.1 Any Underground Pipe that shall be repaired shall be repaired to equal or exceed standards of its original condition.

6.7.2 An Owner and Operator may repair holes in Underground Pipe and fittings with methods such as patching, welding, or clamping as a temporary repair for up to 30 days.

6.7.3 Permanent repairs shall be:

6.7.3.1 Replacement of the affected section of Underground Piping, or

6.7.3.2 Full welded encirclement of the affected section of Underground Piping.

Section 7. Design and Construction Requirements for Secondary Containment for New ASTs

7.1. General Requirements for Secondary Containment

7.1.1 Secondary Containment shall be required for all New ASTs constructed after the effective date of these Regulations.

7.1.2 Secondary Containment shall not be used to store materials. The Secondary Containment will be used to collect spills or Leaks, which shall then be promptly removed, in accordance with appropriate disposal and safety procedures.

7.1.3 If not roofed or otherwise protected from the accumulation of precipitation, the Secondary Containment area shall be equipped with a manually-controlled pump or siphon or a gravity drain Pipe which has a manually-controlled valve, to remove precipitation that collects within the Secondary Containment system to a Department approved location.

7.1.4 Secondary Containment shall be designed and constructed to retain any Regulated Substance that leaves the primary containment including an AST and Ancillary Piping and prevent any Regulated Substance from reaching the surface water, groundwater, or adjacent land before cleanup occurs.

7.1.5 All drainage valves located within the Secondary Containment system shall remain closed at all times except during controlled drainage events. Secondary Containment systems may be equipped with Regulated Substance sensors that will automatically close all drainage valves in the event of a Leak with prior approval of the Department.

7.2. Secondary Containment Options

7.2.1 Requirements for Diking Configurations

7.2.1.1 Dikes shall be constructed of materials compatible with the contents of the AST and which will retain any Regulated Substance that leaves the primary containment including an AST and Ancillary Piping and prevent any Regulated Substance from reaching the surface water, groundwater, or adjacent land before cleanup occurs.

7.2.1.2 There shall be no openings or unsealed penetrations of the walls or floor of the dike. Any exceptions will be AST specific and will require Department approval.

7.2.1.3 All dikes shall have a minimum capacity to contain 110% of the volume of the largest AST within the diked area or 100% of the volume of the largest AST plus six inches of freeboard for precipitation.

7.2.1.4 The extent of the diked area shall be sufficient to capture overflows, splashing caused by overfilling and/or the trajectory of sidewall leaks.

7.2.1.5 Sumps should be installed as part of all dikes and the dike floors sloped to the sumps to enhance material removal.

7.2.1.6 Pumps which are permanently installed for the removal of collected material to areas outside the dike area shall be locked in the off position when not in use and shall be monitored when in use to avoid discharging Regulated Substances to the environment. Portable pumps which are used for the removal of collected material to areas outside of dikes shall be monitored while in use to avoid discharging Regulated Substances to the environment. Pumps which discharge material back to the ASTs within the diked area need not be locked when not in use, but pumps which pump in either direction shall have valve locks to control discharges outside the dike, and when discharging outside the dike shall be monitored.

7.2.1.7 An inspection and maintenance plan shall be developed to periodically review the condition of the Secondary Containment system.

7.2.1.8 A permanent walkway, stairway or ramp shall provide access to prevent dike wall degradation.

7.2.2 Requirements for Curbing/Paving

7.2.2.1 The paving/curbing combination, to be considered Secondary Containment, shall be able to contain 100% of the volume of the AST plus six inches or to direct spilled or leaked materials to a containment structure that has the ability to contain 100% of the volume of the AST plus six inches of freeboard for precipitation.

7.2.2.2 The curbing and/or paving shall be constructed of materials compatible with the contents of the ASTs around which they are installed. If necessary the curbing and paving shall be coated with a protective material.

7.2.2.3 To provide a liquid tight seal, curbing shall be installed as either part of the paving (integrally poured) or, if installed later, shall have a liquid barrier included in the installation.

7.2.2.4 The extent of the curbed area shall be sufficient to capture overflows, splashing caused by overfilling and/or the trajectory of sidewall leaks.

7.2.2.5 Sumps should be installed as part of all curbs and the floors sloped to the sumps to enhance material removal.

7.2.3 Requirements for Underground Vaults

7.2.3.1 A Vault shall completely enclose the AST and shall be constructed of materials compatible with the Regulated Substance to be contained in the AST.

7.2.3.2 All lines to and from ASTs installed in Vaults shall pass through the roof of the Vault. No lines shall penetrate the walls or floor of the Vault.

7.2.3.3 Each AST shall have its own Vault. Adjacent ASTs may share common walls.

7.2.3.4 Vaults shall be designed according to sound engineering practices.

7.2.3.4.1. The floor shall be designed and constructed to withstand stress resulting from fully loaded ASTs within the Vault.

7.2.3.4.2. The top, walls, and floor shall be designed to withstand the anticipated loading including loading from traffic, soil, and groundwater.

7.2.3.4.3. The Vault shall be constructed to be liquid tight.

7.2.3.5 The AST and Vault shall be suitably anchored to withstand uplifting by either water or a Regulated Substance, including when the AST is empty.

7.2.3.6 The only openings in a Vault are those necessary for access, inspection, filling, emptying and venting of the AST.

7.2.3.7 There shall be no backfill around the AST and there shall be sufficient space between the AST and the Vault to allow inspection of the AST and equipment. ASTs designed for underground use shall not be used in Vaults.

7.2.3.8 Each Vault shall be equipped with Continuous Leak Detection and be capable of detecting vapors and liquids.

7.2.3.9 A means to admit a suitable fire suppression agent shall be provided for each Vault that contains Flammable or Combustible substances.

7.2.3.10 Each Vault shall have a means for personnel entry.

7.2.4 Requirements for Double-walled ASTs as Secondary Containment

7.2.4.1 A double walled AST may be used to fulfill the requirements for Secondary Containment if the AST is installed with all of the following:

7.2.4.1.1. Overfill prevention as required in §8 of this Part; and

7.2.4.1.2. Leak Detection as required in §9 of this Part; and

7.2.4.1.3. Where an AST roof is involved, the outer wall of the double walled AST shall be designed to contain 100% of the volume of the AST. If there is an open top, the total containment shall be constructed to contain 110% of the volume of the largest AST within the system or 100% of the volume of the largest AST plus six inches.

7.2.4.2 The outer containment wall shall be compatible with and capable of containing the Regulated Substance stored.

7.2.5 Requirements for Secondary Containment External Liners

7.2.5.1 An external liner is a liner constructed of a material compatible with the contents of the AST which is installed inside an existing Secondary Containment structure, such as a dike, to provide additional assurance of impermeability. External liners are usually installed inside earthen dikes and under an AST.

7.2.5.2 Secondary Containment lining materials shall be constructed and maintained to retain any Regulated Substance that leaves the primary containment including an AST and Ancillary Piping and prevent any Regulated Substance from reaching the surface water, groundwater, or adjacent land before cleanup occurs for the operational life of the ASTs.

7.2.5.3 Lining materials shall be compatible with the Regulated Substance stored in the AST.

Section 8. Design and Installation Requirements for Overfill and Spill Prevention

8.1. General Requirements

8.1.1 Owners and Operators shall institute safe fill, shutdown and transfer procedures or equivalent measures established by the Department, that shall ensure that spills resulting from AST overfills or other Regulated Substance transfer operations do not occur.

8.1.2 Receipts of Regulated Substance shall be authorized by the Operator or Facility personnel trained by the Operator or Owner. The authorizing person shall ensure the volume available in the AST(s) is greater than the volume of Regulated Substance to be transferred to the AST(s) before the transfer operation commences. The Operator shall ensure that all AST fill valves not in use are secured and that only the AST(s) designated is receiving Regulated Substance. The Operator shall ensure that the transfer operation is monitored either by manual or automatic means to prevent an overfill.

8.1.3 If the transfer operations are not being continuously monitored by a transfer operator appropriately trained in safe transfer procedures, the AST shall be equipped with overfill prevention equipment that will automatically shut off the flow into the AST when the AST is no more than 95% full or other safe fill level approved by the Department. All automatic shutoff equipment shall be equipped with a fail-safe mechanism that will function in the event of power failure, malfunction or similar event.

8.1.4 If the transfer operations are being continuously monitored by a transfer operator appropriately trained in safe transfer procedures the AST shall be equipped with a high level alarm or other automatic mechanism approved by the Department, that will immediately alert the Operator to prevent an overfill event.

8.1.4.1 The high level alarm shall be monitored continuously and upon alert the Operator will implement safe shut down procedures to prevent an overfill.

8.1.4.2 The alarm shall consist of a visual and audible device capable of alerting the transfer operator both by sight and hearing, to prevent an overfill situation. If the operator is in a surveillance station, this alarm shall cause a warning light and audible signal in that station to activate. In addition, this system shall alarm on failure, malfunction or power loss.

8.1.5 All Regulated Substance transfer areas where filling connections are made with vehicles shall be equipped with a spill containment system capable of containing and collecting those spills and overfills and preventing a Release.

8.1.6 If installed, an automatic shutdown system utilized during transfer of a Regulated Substance shall include the capability to direct the flow of a Regulated Substance

to another AST capable of receiving the transferred Regulated Substance or the capability to shut down the pumping or transfer system.

8.1.7 All ASTs shall be equipped with a gauge or other measuring device that is readily visible and accurately indicates the level of Regulated Substance or quantity of Regulated Substance in the AST.

8.1.8 The overfill prevention and measuring device shall be independent of each other.

Section 9. Leak Detection Requirements for New ASTs

9.1. General Requirements

9.1.1 A Leak of Regulated Substances shall be detected and contained before contamination of soil or water resources outside the containment area occurs.

9.1.2 New ASTs shall have a method, or combination of methods, of Leak Detection that can detect a Leak from any portion of the AST.

9.1.3 Leak Detection methods other than visual shall be installed, calibrated, tested, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance checks for operability to ensure that the device is functioning as designed.

9.1.4 All manufacturers' instructions, and the performance claims and their manner of determination described in writing by the equipment manufacturer or installer shall be retained at the Facility for the life of the AST.

9.1.5 Leak Detection systems require approval by the Department prior to installation. A Leak Detection response level shall be described in writing for each method or combination of methods of Leak Detection used for an AST.

9.1.6 The Leak Detection method or combination of methods used shall be capable of being inspected at least every seven (7) days to determine if a Leak from the AST has occurred.

9.1.7 Any interstitial spaces, including but not limited to those located in double-walled ASTs, double-walled piping, and double bottoms that are installed as part of a New or an Upgraded AST, shall be equipped with interstitial monitoring equipment capable of detecting a discharge of a Regulated Substance into the interstitial space under all operating conditions. *[Amended 2005]*

9.1.8 The requirements of §9.1.2, §9.1.6 and §9.1.7 shall not apply to double-walled ASTs that are not in contact with the soil and that additionally meet the requirements for Secondary Containment in accordance with §7 of this Part.

Section 10. Relocation, Repairs and Modifications Requirements for ASTs

10.1. General Requirements for Relocation, Repairs and Modifications

10.1.1 Repairs, modifications and Relocations shall be performed, inspected and tested in accordance with API 653 or STI-SP001 or NACE RP0294 or ASME RTP-1 as applicable or other standards approved by the Department. *[Amended 2005]*

10.2. Additional Requirements for Relocated ASTs.

10.2.1 All Relocated ASTs shall meet the standards for New ASTs, as applicable, with the exception that the Department may approve the use of the existing material of construction, and shall meet the following requirements before the AST is utilized for storage of Regulated Substances:

10.2.1.1 The Owner and Operator shall notify the Department of the scheduled Relocation and shall have received a formal letter of approval according to the requirements of §1 of this Part; and

10.2.1.2 A thorough internal and external cleaning and inspection performed by a Certified API 653 Inspector or a Certified STI-SP001 Inspector or individual certified under ASME RTP-1 or National Board Inspection Code, as applicable, determines in its new location that the AST is free of defects per the requirements of the applicable code; and

10.2.1.3 The AST is determined to be structurally sound in its new location by a Professional Engineer or an inspector certified per the applicable code such as but not limited to, a Certified API 653 Inspector or a Certified STI-SP001 Inspector, or qualified by training and experience in the absence of a code certification process.

[Amended 2005]

Section 11. Upgrade Requirements for Existing ASTs

11.1. General Requirements for Upgrading Existing ASTs

11.1.1 Within one (1) year of the effective date of these Regulations, all ASTs shall be equipped with a gauge or other measuring device that accurately shows the level of Regulated Substance or the quantity of Regulated Substance in the AST.

11.1.2 Within one (1) year of the effective date of these Regulations all ASTs shall have an overfill prevention procedure per the Requirements in §8 of this Part.

11.1.3 Within three (3) years of the effective date of these Regulations, all ASTs shall have normal and emergency venting installed in accordance with API 2000 or NFPA 30 or UL142 or UL2085 as applicable.

11.1.4 Within ten (10) years of the effective date of these Regulations, the required overfill prevention equipment and the measuring device shall function independently of each other per the requirements in §8 of this Part.

11.1.5 Within seven (7) years of the effective date of these Regulations, an AST which is not equipped with cathodic protection or an internal liner, shall be Upgraded to meet the requirements of §11.1.7 of this Part. *[Amended 2005]*

11.1.6 Within fifteen (15) years of the effective date of these Regulations, an AST which is equipped with cathodic protection in accordance with §5 of this Part, or an internal liner, shall be Upgraded to meet the requirements of §11.1.7 of this Part. *[Amended 2005]*

11.1.7 All ASTs shall be equipped with or comply with at least one of the following per the schedule in §11.1.5 or §11.1.6 of this Part:

11.1.7.1 Leak Detection equipment in accordance with the requirements of §9 of this Part or alternate method approved by the Department; or

11.1.7.2 Release Prevention Barrier in accordance with the Requirements of this Part; or

11.1.7.3 Double bottom in accordance with the Requirements of this Part; or

11.1.7.4 Annual in service test or inspection approved by the Department; or

11.1.7.5 Annual internal inspection in accordance with API 653 or other applicable standard.

11.1.8 Within three (3) years of the effective date of these Regulations, all ASTs shall comply with the Inerting Requirements of §12 of this Part.

11.2. Upgrade Requirements for Existing Underground Piping Systems

11.2.1 Within ten (10) years of the effective date of these Regulations, all existing Underground Piping that does not meet the requirements for new Underground Piping as required in §6 of this Part shall be Upgraded to meet such Requirements. *[Amended 2005]*

11.3. Upgrade Requirements for Tanks Built Prior to the Effective Date of the Regulations Converting to Storage of a Regulated Substance *[Amended 2005]*

11.3.1 Persons, who own an aboveground storage tank installed prior to the effective date of the Regulations, which has only stored non-Regulated Substances, who intend to convert the aboveground storage tank to the storage of a Regulated Substance and the conversion will make the tank subject to these Regulations, shall notify the Department of the Change-In-Service on an AST registration form provided by the Department at least ten (10) days prior to initiating the Change-In-Service. The form shall be accompanied with documentation that the tank shall comply with the following requirements:

11.3.1.1 The tank shall be subject to a thorough internal and external cleaning and inspection performed by a Certified API 653 Inspector or a Certified STI-SP001 Inspector or individual certified under ASME RTP-1 or National Board Inspection Code, as applicable, determining that the tank is free of defects per the applicable code; and

11.3.1.2 All aboveground and underground piping connected to the tank which will convey a Regulated Substance shall comply with an API 570 external visual inspection and API 570 pressure test as applicable; and

11.3.1.3 The tank is determined to be structurally sound by a Professional Engineer or an inspector certified per the applicable code such as but not limited to a Certified API 653 Inspector or a Certified STI-SP001 Inspector or individual certified under ASME RTP-1 or National Board Inspection Code, or qualified by training and experience in the absence of a code certification process; and

11.3.1.4 The tank and underground piping shall comply with the schedule of Requirements specified in §11.1 and §11.2 of the Section.

11.3.2 If within the ten (10) day period, the required notification to the Department is completely satisfied; the conversion to storage of a Regulated Substance may proceed without waiting for the expiration of the ten (10) days.

11.4. Upgrade Requirements for Tanks Built After the Effective Date of the Regulations Converting to Storage of a Regulated Substance *[Amended 2005]*

11.4.1 Persons, who own an aboveground storage tank installed after the effective date of the Regulations, which has only stored non-Regulated Substances, who intend

to convert the aboveground storage tank to the storage of a Regulated Substance and the conversion will make the tank subject to these Regulations, shall notify the Department of the Change-In-Service on an AST registration form provided by the Department at least ten (10) days prior to initiating the Change-In-Service. The form shall be accompanied with documentation that the tank shall comply with the following requirements:

11.4.1.1 The tank shall meet the standards for New ASTs as specified in this Part, as applicable; and

11.4.1.2 The tank shall be subject to a thorough internal and external cleaning and inspection performed by a Certified API 653 Inspector or a Certified STI-SP001 Inspector or individual certified under ASME RTP-1 or National Board Inspection Code, as applicable, determining that the tank is free of defects per the applicable code; and

11.4.1.3 All aboveground and underground piping connected to the tank which will convey a Regulated Substance shall comply with an API 570 external visual inspection and API 570 pressure test as applicable; and

11.4.1.4 The tank is determined to be structurally sound by a Professional Engineer or an inspector certified per the applicable code such as but not limited to a Certified API 653 Inspector or a Certified STI-SP001 Inspector or individual certified under ASME RTP-1 or National Board Inspection Code, or qualified by training and experience in the absence of a code certification process.

11.4.2 If within the ten (10) day period, the required notification to the Department is completely satisfied; the conversion to storage of a Regulated Substance may proceed without waiting for the expiration of the ten (10) days.

Section 12. Inerting Requirements for Ullage Volumes of ASTs Without a Floating Roof

12.1. General Requirements

12.1.1 All ASTs without a Floating Roof installed or erected after the effective date of these Regulations and containing Flammable Regulated Substances as defined by NFPA 30, or Spent Acids, or Spent Caustics, or other Regulated Substances as defined by the Department shall have an automatic system in place to maintain the Ullage volume of the AST below the Limiting Oxidant Concentration (LOC), for any gaseous Oxidant which may be present, by the use of an Inert Gas Blanketing system in accordance with NFPA 69. Systems operated above the Upper Flammable Limit (UFL) shall be subject to approval by the Department prior to installation. Other methods to prevent a Deflagration such as but not limited to Spark Extinguishing Systems, Deflagration Suppression, or Deflagration Pressure Containment shall be subject to approval by the Department prior to installation.

12.1.2 The following ASTs shall be exempt from the Inerting requirements of this Section:

12.1.2.1 All Existing Shop-Fabricated ASTs which meet the requirements of UL 142 and any requirements of the *State Fire Prevention Regulations*;

12.1.2.2 All Existing Field Constructed ASTs used for Dispensing which meet the requirements of API 650 and API 2000 and any requirements of the *State Fire Prevention Regulations*;

12.1.2.3 New Shop-Fabricated horizontal ASTs less than or equal to 50,000 gallons and new Shop Fabricated vertical ASTs less than or equal to 30,000 gallons used for Bulk Storage which meet the requirements of UL 142 and any requirements of the *State Fire Prevention Regulations*;

12.1.2.4 New Shop-Fabricated horizontal ASTs less than or equal to 50,000 gallons and New Shop-Fabricated vertical ASTs less than or equal to 30,000 gallons used for Dispensing which meet the requirements of UL 142 and UL 2085 and the requirements of the *State Fire Prevention Regulations*;

12.1.2.5 New Field-Constructed horizontal or vertical ASTs used for Dispensing that meet the requirements of API 650 and API 2000 and the requirements of the *State Fire Prevention Regulations.*

12.1.3 An automatic system shall be continuously in place, in use, and operating to designed specifications whenever an AST is in service and has the potential for a Flammable atmosphere. The system shall be in place, in use and operated to

designed specifications unless the AST has been cleaned sufficiently and purged of Flammable vapors to safely permit hot work in, on or around the AST.

12.1.4 An automatic system shall be in place, in use, and operating to designed specifications that continuously monitors the LOC or alternate monitoring parameters as approved by the Department so that whenever the required LOC or alternate monitoring parameters is not met the system shall:

12.1.4.1 Energize an audible and a visual alarm at the location where the operating parameters of the affected AST are monitored and controlled; and

12.1.4.2 Be equipped with an emergency system capable of discontinuing the energy supply to any pumps engaged in moving liquid into or out of the affected AST.

12.1.5 Work to return the system to specified operating parameters shall begin immediately after an alarm is registered. If the AST cannot be returned to the required LOC within 24 hours, the Department shall be notified and be given an indication of when the AST can be returned to the required LOC.

12.1.6 During the time period that the system is not operating within the required LOC no actions shall be taken which unreasonably increase the probability of a Deflagration occurring within the affected AST.

12.1.7 The system shall be repaired within a time frame mutually agreed to by the Department and the AST Owner and Operator.

12.1.8 The Department shall be notified within 24 hours when the affected AST is returned to the required LOC.

12.1.9 The gases exhausted or vented from a regulated AST operating under an Inerting system shall be treated in a manner which is compliant with all applicable Department Regulations and Permits.

Section 13. Out-Of-Service Requirements

13.1. General Requirements

13.1.1 An AST is Out-Of-Service if the AST:

13.1.1.1 has been designated as Out-Of-Service by the Owner and Operator; or

13.1.1.2 is empty; or

13.1.1.3 is not in use, in that it has not had, within any 45-day period, a Regulated Substance transferred into or withdrawn from the AST and has been drained of all contents and is empty.

13.1.2 The Owner and Operator shall notify the Department, on a form provided by the Department, upon taking an AST Out-Of-Service unless the AST is empty or Out-Of-Service because of scheduled testing or inspection per these Regulations. *[Amended 2005]*

13.1.3 The Owner and Operator of an AST that has remained Out-Of-Service for greater than eighteen (18) months shall:

13.1.3.1 Remove all the Regulated Substance from the AST and isolate connected piping; and

13.1.3.2 Secure the AST to prevent unauthorized entrance or tampering so that a Regulated Substance is not accidentally or intentionally introduced into the AST; and *[Amended 2005]*

13.1.3.3 Thoroughly clean the interior of the AST and all Ancillary Piping of all sludge, solids, and residual Regulated Substance and retain documentation of the proper disposition of the removed sludge, solids and residual Regulated Substance. *[Amended 2005]*

13.1.4 The Owner and Operator of an AST that has remained Out-Of-Service for a period greater than three (3) years shall assess the site to determine whether there is soil or groundwater contamination attributable to the AST as per the requirements of §14 of this Part. *[Amended 2005]*

13.2. Reactivating an Out-Of-Service AST

13.2.1 An AST which has been taken Out-Of-Service and for which notice is required under §13.1.2 of this Part shall not be placed back into service, nor shall a Regulated Substance be introduced into the AST until the Owner and Operator certifies to the Department in writing that the AST is in compliance with all applicable statutes and Regulations.

13.2.2 An AST Owner and Operator who reactivates an AST which has been Out-of-Service per §13.1.1 shall notify the Department by amending the AST registration form required by Part A, §4, ten (10) days prior to putting the AST back into service.

13.2.3 Prior to placing an AST which has been Out-Of-Service for more than 1 year, back into service, the Owner and Operator shall thoroughly inspect and test the AST for evidence of the following conditions:

13.2.3.1 Corrosion of the interior or exterior of the AST or Ancillary Piping; and

13.2.3.2 Abnormal thinning of the AST walls or bottom; and

13.2.3.3 Perforations through the AST walls or bottom; and

13.2.3.4 Any other condition that would indicate a weakening of the structural integrity of the AST or identify a situation which could result in a Release of Regulated Substance from the AST.

Section 14. Site Assessment Requirements for AST Removal; or Relocation; or Permanent AST Closure In Place; or Permanent Change In Contents of an AST; or Out-Of-Service

14.1. General Requirements

14.1.1 If, during an AST Removal, Relocation, Permanent Closure in Place, Permanent Change in Contents, converting the AST to another use, or when an AST has been Out-Of-Service for more than three years, there is evidence of soil or groundwater contamination from a Regulated Substance attributable to the AST, detected by site assessment, observation, or analysis, the Owner and Operator shall notify the Department immediately and shall comply with all requirements of Part E of these Regulations. *[Amended 2005]*

14.2. Site Assessment During AST Removal, Relocation, Permanent Closure in Place, Permanent Change in Contents, Converting the AST to Another Use or Out-Of-Service Assessment *[Amended 2005]*

14.2.1 The Owner and Operator of the AST shall assess the site to determine whether there is soil or groundwater contamination attributable to the AST when:

14.2.1.1 The AST has been Out-Of-Service for a period greater than three (3) years; or

14.2.1.2 The AST has a Permanent Change in Contents from a Regulated Substance to a non-Regulated Substance; or *[Amended 2005]*

14.2.1.3 After dismantling and Removing an AST or Permanently Closing in Place an AST or Relocating an AST or converting the AST to a use other than as an AST. *[Amended 2005]*

14.2.2 The assessment to determine if any contamination is present shall be performed using the following investigative methods, as applicable:

14.2.2.1 Test pits shall be excavated or soil borings advanced in the immediate vicinity of the AST, and representative soil and groundwater samples shall be obtained.

14.2.2.2 Soil and groundwater samples shall be obtained from the ground surface immediately beneath the AST, at the location of any visual staining or Regulated Substance accumulation, and beneath the Ancillary Piping.

14.2.2.3 Soil and groundwater samples shall be representative of the conditions found in the vicinity of the AST subject to the assessment.

14.2.2.4 All Leak Detection devices or subsurface monitoring locations shall be sampled.

14.2.3 The soil and groundwater samples shall be submitted to an appropriately certified laboratory for analysis. The samples shall include a sample obtained from the location with the highest concentration of volatile organics.

14.2.4 Samples shall be analyzed based upon any and all Regulated Substances stored in the AST over its lifetime.

14.2.5 Laboratory analysis methods for the analyses required in §14.2.4 of this Part shall be methods approved by the Department.

14.2.6 A site assessment shall be completed within thirty (30) days of a Permanent Change in Contents, or Removal, or Permanent Closure in Place, or Relocation, or the Out-Of-Service requirement specified in §14.2.1.1, or converting the AST to a use other than an AST and the results of the required site assessment shall be submitted to the Department within thirty (30) days of the completion of the site assessment. *[Amended 2005]*

Section 15. AST Removal Requirements

15.1. General Requirements

15.1.1 An Owner and Operator shall notify the Department of the scheduled Removal of an AST on a form provided by the Department not later than ten (10) days prior to the Removal of an AST.

15.1.2 An AST and Ancillary Piping may be treated as separate entities for the purpose of Removal, Permanent Closure in Place or Permanent Change in Contents.

15.1.3 An Owner and Operator shall comply with the requirements of §14 of this Part.

15.2. Additional Requirements for Removal

15.2.1 To remove an AST, an Owner and Operator shall at a minimum comply with the following requirements:

15.2.1.1 Remove all the Regulated Substance from the AST and Ancillary Piping; and

15.2.1.2 Thoroughly clean the interior of the AST and all Ancillary Piping of all sludge, solids, and residual Regulated Substance with documentation of the proper disposition of the removed sludge, solids and residual Regulated Substance; and

15.2.1.3 Completely displace the AST and Ancillary Piping from its installed location, and render the AST and Ancillary Piping permanently non-useable or discontinue use of the AST and Ancillary Piping as an AST and Ancillary Piping with the intent of not introducing a Regulated Substance into the AST and Ancillary Piping.

[Section 15 added 2005]

Section 16. Permanent Closure in Place Requirements

16.1. General Requirements

16.1.1 An Owner and Operator shall notify the Department of the scheduled Permanent Closure in Place of an AST on a form provided by the Department not later than ten (10) days prior to the Permanent Closure in Place of an AST.

16.1.2 An AST and Ancillary Piping may be treated as separate entities for the purpose of Removal, Permanent Closure in Place or Permanent Change in Contents.

16.1.3 An Owner and Operator shall comply with the requirements of §14 of this Part.

16.2. Additional Requirements for Permanent Closure in Place

16.2.1 To Permanently Close in Place an AST, an Owner and Operator shall at a minimum comply with the following requirements:

16.2.1.1 Remove all the Regulated Substance from the AST and Ancillary Piping; and

16.2.1.2 Thoroughly clean the interior of the AST and all Ancillary Piping of all sludge, solids, and residual Regulated Substance with documentation of the proper disposition of the removed sludge, solids and residual Regulated Substance; and

16.2.1.3 Secure the AST and Ancillary Piping to prevent unauthorized entrance or tampering so that a Regulated Substance is not accidentally or intentionally introduced into the AST and Ancillary Piping.

[Section16 added 2005]

Section 17. Permanent Change in Contents Requirements

17.1. General Requirements

17.1.1 An Owner and Operator shall notify the Department of the scheduled Permanent Change in Contents of an AST on a form provided by the Department not later than ten (10) days prior to the Permanent Change in Contents of an AST.

17.1.2 An AST and Ancillary Piping may be treated as separate entities for the purpose of Removal, Permanent Closure in Place or Permanent Change in Contents.

17.1.3 An Owner and Operator shall comply with the requirements of §14 of this Part.

17.2. Additional Requirements for Permanent Change in Contents

17.2.1 To undergo a Permanent Change in Contents in an AST, an Owner and Operator shall at a minimum comply with the following requirements:

17.2.1.1 Remove all the Regulated Substance from the AST and Ancillary Piping; and

17.2.1.2 Thoroughly clean the interior of the AST and all Ancillary Piping of all sludge, solids, and residual Regulated Substance with documentation of the proper disposition of the removed sludge, solids and residual Regulated Substance; and

17.2.1.3 Continue active use of the AST and Ancillary Piping with the intent of only storing and conveying a non-Regulated Substance in the AST and Ancillary Piping.

[Section 17 added 2005]

PART C.

INSPECTION, MONITORING, TESTING AND RECORD KEEPING REQUIREMENTS FOR ABOVEGROUND STORAGE TANKS

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Section 1. Inventory Control Requirements

1.1. General Requirements

1.1.1 Every Owner and Operator shall maintain inventory control records for each AST containing a Regulated Substance. Records shall be kept for each AST or cluster of ASTs if they are normally interconnected, and shall include measurements of transfers of a Regulated Substance into and out of the AST, measurements of inventory on hand, and records of gains and losses. Reconciliation of records shall be kept current, shall account for all variables which could affect an apparent loss or gain, and shall be in accordance with generally accepted practices. The records shall be accumulated for each day an AST has a Regulated Substance added or withdrawn but in no instance shall the interval between measurement of inventory on hand exceed seven (7) days. The records shall include at a minimum:

1.1.1.1 Description and quantity of the Regulated Substance in the AST. The equipment used shall be capable of measuring the level of Regulated Substance over the full range of the AST's height.

1.1.2 Each Owner and Operator shall institute inventory control procedures within thirty (30) days of the effective date of these Regulations capable of detecting a significant variation of inventory. A significant variation shall be considered as a gain or a loss in excess of 1% of the throughput or storage capacity of each individual AST on a thirty (30) day or monthly basis. *[Amended 2005]*

1.1.2.1 Reconciliations of inventory measurements shall be conducted monthly or every thirty (30) days. If the significant variation persists for two consecutive months or two consecutive thirty (30) day periods, the Owner and Operator shall conduct an investigation to determine the cause of the variation. This investigation shall be completed within ten (10) working days of the end of the second reconciliation period that shows significant variation. If this investigation does not reveal the cause of the inventory variation the Owner and Operator shall notify the Department and shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of Part E of these Regulations. *[Amended 2005]*

1.1.2.2 If the AST is equipped with a Continuous Leak Detection monitoring system and cathodic protection of the AST and Ancillary Piping, a significant variation of inventory for this Section shall be considered as a gain or a loss in excess of 3% of the throughput or storage capacity of each individual AST on a monthly or thirty (30) day basis. *[Amended 2005]*

1.1.2.3 Inventory records shall be maintained for a period of not less than three (3) years and shall be made available for Department inspection within ten (10) days upon request.

Section 2. Inspection Requirements for Secondary Containment

2.1. General Requirements

2.1.1 Secondary Containment for all ASTs subject to these Regulations shall be inspected as a part of external inspections and routine in-service inspections within 180 days of the effective date of these Regulations.

2.1.2 If the Secondary Containment has been tested or inspected and fails to meet the criteria established in Part B, §7 f these Regulations, the Owner and Operator shall have (60) sixty days from the date of the inspection identifying the problem to correct the problem or other schedule approved by the Department. Temporary safety measures shall be instituted as required by the Department.

2.1.3 Owners and Operators of ASTs shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of Part E of these Regulations at any time evidence of a Release from Secondary Containment is noted during the course of an inspection.

2.1.4 If a significant change in the structure of the Secondary Containment occurs, the Owner and Operator shall verify that the Secondary Containment meets or exceeds the criteria established in Part B, §7 of these Regulations.

2.2. Routine In-Service Inspections

2.2.1 The routine in-service inspection shall monitor the condition of the Secondary Containment at an interval not to exceed thirty-one (31) days. *[Amended 2005]*

2.2.2 The routine in-service inspection of the Secondary Containment shall include visual inspection from the ground.

2.3. External Inspections

2.3.1 External inspections of the Secondary Containment shall monitor the condition of the Secondary Containment at an interval not to exceed five (5) years.

2.3.2 External inspections of Secondary Containment shall be performed by inspectors familiar with Secondary Containment and qualified by experience for such inspections.

2.3.3 Secondary Containment shall be inspected to ensure that it has been maintained in a condition that shall ensure it is capable of retaining any Regulated Substance that leaves the primary containment including an AST and Ancillary Piping and prevent any Regulated Substance from reaching the surface water, groundwater, or soil outside the Secondary Containment before cleanup occurs.

Section 3. Testing Requirements for Overfill Protection and Gauges

3.1. General Requirements

3.1.1 The overfill prevention system required in Part B, §8 shall be tested no less frequently than every ninety-three (93) days to ensure proper function and records of testing shall be maintained at the Facility for three (3) years. *[Amended 2005]*

3.1.2 Existing ASTs with overfill prevention systems shall implement the testing requirements as required in §3.1.1 of this Part within thirty (30) days of the effective date of these Regulations.

3.1.3 The gauge or measuring device required in Part B, §8 shall be calibrated no less frequently than once every twelve (12) months and records of testing shall be maintained at the Facility for three (3) years.

3.1.4 Existing ASTs with a gauge or measuring device shall implement the calibration requirements as required in §3.1.3 of this Part within thirty (30) days of the effective date of these Regulations.

Section 4. Inspection, Monitoring and Testing Requirements for Underground Piping

4.1. General Requirements

4.1.1 Existing Underground Piping in compliance with an API 570 inspection and testing schedule as of the effective date of these Regulations, or other schedule approved by the Department shall adhere to its current established inspection schedule.

4.1.2 All existing Underground Piping not in compliance with an API 570 inspection and testing schedule as of the effective date of these Regulations or other schedule approved by the Department shall be pressure tested annually, per API 570, until it is Upgraded to the new piping standards or removed from service. *[Amended 2005]*

4.1.3 In lieu of annual testing, the Department may approve an alternative risk-based schedule on a case-by-case basis.

4.1.4 New Underground Piping shall comply with the inspection and testing schedule in accordance with API 570 or other schedule approved by the Department.

4.1.5 Underground Piping that has been repaired or reactivated after being out-of-service, shall be reassessed to ensure the Underground Piping meets or exceeds the original performance specifications prior to returning to service.

4.1.6 The steam return and exhaust lines of heating coils that discharge to the environment, or which pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system, shall be inspected for any possible contamination every month or every thirty (30) days. *[Amended 2005]*

4.1.7 Records of compliance with all testing requirements shall be kept on file at the Facility for the life of the Underground Piping system and shall be made available to the Department upon request.

4.1.8 Any Underground Piping determined to be Leaking or Releasing a Regulated Substance shall be removed from service, by prohibiting the introduction of additional Regulated Substances into the Underground Piping, within 24 hours and evacuated as soon as practicable. Faulty Underground Piping shall remain out of service until repaired. Release reporting and corrective actions shall be accomplished in accordance with Part A, §8 and Part E of these Regulations.

Section 5. Inspection, Monitoring and Testing Requirements for Cathodic Protection Systems for ASTs and Underground Piping

5.1. General Requirements for ASTs and Underground Piping

5.1.1 All Cathodic Protection Systems shall be operated and maintained to provide continuous corrosion protection to the external soil side portion of the metal components of that portion of the AST and Underground Piping that contain a Regulated Substance and are in contact with the soil.

5.1.2 A Cathodic Protection System shall be inspected and maintained to meet or exceed the requirements of the most recent edition of the following industry standards:

5.1.2.1 NACE Standard RP0193, *External Cathodic Protection of On-Grade Carbon Steel Storage Tank Bottoms;* and

5.1.2.2 API RP651, *Cathodic Protection of Aboveground Petroleum Storage Tanks;* and

5.1.2.3 NACE Standard RP0169, *Control of External Corrosion on Underground or Submerged Metallic Piping Systems,* and

5.1.3 Existing ASTs with a Cathodic Protection System shall have, within one year of the effective date of these Regulations, test stations or access points which enable the Owner and Operator to test the adequacy of cathodic protection.

5.1.4 Owners and Operators of Existing ASTs with a Cathodic Protection System shall initiate the requirements in this Section on the effective date of the Regulations.

5.2. Requirements for Impressed Current Systems

5.2.1 The source of protective current for an Impressed Current System shall be monitored in accordance with one of the Standards referenced in §5.1.2 of this Part no less frequently than every sixty-three (63) days and the results recorded. If any inspection or monitoring indicates that the system is not functioning properly and the AST or Underground Piping are not being adequately protected in accordance with one of the Standards referenced in §5.1.2 of this Part, the cause shall be determined and the necessary repairs shall be made within ninety (90) days or other schedule approved by the Department, in accordance with one of the Standards referenced in §5.1.2 of this Part. *[Amended 2005]*

5.2.2 All Impressed Current Systems shall be inspected and tested every 12 months as part of a preventative maintenance program to minimize in-service failure. The inspection and tests shall include a check for electrical shorts, ground connections, meter accuracy, and circuit resistance. The effectiveness of isolating devices, continuity bonds, and insulators shall be evaluated during this inspection.

5.2.3 Impressed Current Systems that are not operating as required shall be repaired or replaced within ninety (90) days or other schedule approved by the Department, or the AST and Underground Piping which has the non-operational system shall be drained of its Regulated Substance and placed Out Of Service in accordance with Part B, §13 of these Regulations until the Impressed Current System is repaired or replaced.

5.2.4 The impressed current source shall not be de-energized at any time including periods when the Facility is closed (except during power failures or during service work on the AST or Underground Piping or the Impressed Current System), and the impressed current source shall be equipped with a continuously operating meter or meters which displays voltage, amperage and run time to show that the system is working.

5.2.5 Records of the continuous operation, inspection, and testing of Impressed Current Systems shall be maintained at the Facility for the operational life of the AST and Underground Piping.

5.3. Requirements for Sacrificial Anode Systems.

5.3.1 Sacrificial Anode Systems shall be inspected and tested at a minimum of once every 12 months, in accordance with industry Standards as referenced in §5.1.2 of this Part. Sufficient AST-to-soil and Underground Piping-to-soil potential measurements shall be made and recorded to determine if the AST and Underground Piping is protected in accordance with one of the industry Standards referenced in §5.1.2 of this Part. If any inspection and test indicates that the system is not functioning properly and the AST or Underground Piping are not being adequately protected in accordance with one of the Standards referenced in §5.1.2 of this Part, the cause shall be determined and the necessary repairs shall be made within ninety (90) days or other schedule approved by the Department, in accordance with one of the Standards referenced in §5.1.2 of this Part

5.3.2 Sacrificial Anode Systems that are not operating as required shall be repaired or replaced within ninety (90) days or other schedule approved by the Department, or the AST and Underground Piping which has the non-operational system shall be drained of its Regulated Substance and placed out of service in accordance with Part B, §13 of these Regulations until the Sacrificial Anode System is repaired or replaced.

5.3.3 Records of the operation, inspection, and testing of Sacrificial Anode Systems shall be maintained at the Facility for the operational life of the AST and Underground Piping.

5.4. Qualifications of Personnel

5.4.1 Cathodic Protection Systems shall be designed by individuals who have obtained a NACE Cathodic Protection Level 3 Certification and have relevant work

experience in the design of Cathodic Protection Systems for ASTs and Underground Piping.

5.4.2 For the maintenance and repair of existing Cathodic Protection Systems, or the replacement of an existing system component with a similar component, excluding minor maintenance procedures that do not substantially change the system such as replacement of fuses, the individual shall be certified by NACE for Cathodic Protection at Level 1, Level 2, or Level 3 and have specific knowledge and experience in the maintenance and repair of Cathodic Protection Systems for ASTs and Underground Piping. The NACE certified individual performing a specific task on a Cathodic Protection System shall be qualified at the appropriate Certification Level for that specific task as defined by NACE.

5.4.3 For the inspection of Cathodic Protection Systems such as identifying damaged components or the recording of rectifier readings the individual does not need to be certified by NACE for Cathodic Protection.

Section 6. Inspection Requirements for Metallic Field-Constructed ASTs

6.1. General Requirements

6.1.1 All New and Existing metallic Field-Constructed ASTs shall meet or exceed the applicable standards or recommendations in API 653 and, as applicable, NACE RP0294 or the requirements in this Section whichever are more stringent.

6.1.2 Owners and Operators shall notify the Department in writing ten (10) days prior to work commencing when all New and Existing metallic Field-Constructed ASTs subject to these Regulations are emptied for maintenance, repairs, or removed from service.

6.1.3 All New metallic Field-Constructed ASTs and Existing metallic Field-Constructed ASTs with new tank bottoms, shall complete an internal inspection in accordance with §6.4 of this Part, within ten years of the date of completion of the installation of the AST or completion of the installation of the new tank bottom. All Existing metallic Field-Constructed ASTs shall complete an internal inspection in accordance with §6.4 of this Part, within three (3) years of the effective date of these Regulations, except those ASTs that are in compliance with an established, documented API 653 or NACE RP0294 inspection schedule, as of the effective date of these Regulations.

6.1.4 All New metallic Field-Constructed ASTs shall complete an external inspection in accordance with §6.3 of this Part, within five years of the date of completion of the installation. All Existing metallic Field-Constructed ASTs shall complete an external inspection in accordance with §6.3 of this Part, within one year of the effective date of these Regulations, except those ASTs that are in compliance with an established, documented API 653 or NACE RP0294 inspection schedule, as of the effective date of these Regulations.

6.1.5 When an AST has been tested or inspected as required by these Regulations, the Owner and Operator shall immediately initiate the actions required or recommended by the report of the Certified API 653 Inspector, including but not limited to requirements or recommendations for repair or removal from service.

6.1.6 A report of the findings of any API 653 inspection that concludes the AST is not fit for service shall be submitted to the Department and the AST Owner and Operator within thirty (30) days of the conclusion of the inspection. The Owner and Operator shall submit to the Department with the API 653 inspection report an additional report detailing a proposed course of action including but not limited to removal of the AST contents and a schedule for repairs prior to the AST being returned to service. Removal of the AST contents shall commence within five (5) days of the conclusion that the AST is not fit for service and completion of the removal of the AST contents shall not exceed ninety (90) days, unless an alternative schedule is approved by the Department.

6.1.7 Any Existing metallic Field-Constructed AST not meeting the material specification requirements of API 650 and API 653 shall be reviewed and analyzed by the appropriate professional engineering disciplines to determine the AST's fitness for service. In no instance shall the review exceed ninety (90) days. A report shall be written and submitted to the AST Owner and Operator and the Department within thirty (30) days of the conclusion of the review detailing the findings of the review and shall propose a course of action. The Department shall review the report and issue an approval or denial for the continued use of the AST to store a Regulated Substance, within 30 days of the Department's receipt of the report.

6.1.8 Owners and Operators of ASTs shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of Part E at any time evidence of a Release or Leak is noted during the course of an inspection.

6.1.9 Underground Pipe is not subject to the requirements of Part C, §6 of these Regulations.

6.2. Routine In-Service Inspections

6.2.1 A routine in-service inspection shall monitor the external condition of the AST and all aboveground Ancillary Piping at an interval not to exceed thirty-one (31) days. *[Amended 2005]*

6.2.2 The routine in-service inspection shall at a minimum be completed in accordance with the guidance contained in API 653 and API 570 or other equivalent procedure approved by the Department. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank In-service Inspection Checklist* and API 570 Appendix D, *External Inspection Checklist for Process Piping* and including the condition of the Secondary Containment, shall be developed and completed for each AST and aboveground Ancillary Piping at each routine in-service inspection. For ASTs equipped with a Release Prevention Barrier or a double bottom, the checklist shall include criteria for visual inspection for evidence of Releases and Leaks.

6.2.3 The routine in-service inspection may be completed by Owner and Operator designated personnel other than an API certified inspector. If designated personnel are not specifically certified in accordance with API 653, training shall include but is not limited to the following:

6.2.3.1 Basic information regarding occupational safety, hazard recognition, personnel protection, and Facility operations; and

6.2.3.2 The procedures to be followed in conducting the daily visual and weekly Facility inspections; and

6.2.3.3 The procedures to be followed upon recognition of a hazard or the potential for a hazard; and

6.2.3.4 The procedure for evaluating the condition of the AST and appurtenances; and

6.2.3.5 The procedures for responding to Releases and Leaks of a Regulated Substance.

6.2.3.6 Records of training shall be maintained at the Facility by the Owner and Operator for five (5) years after the termination date of employment for personnel and shall be made available for review at the Department's request.

6.2.4 The routine in-service inspection shall include close visual inspection from the ground.

6.2.5 Routine in-service inspection reports shall be retained at the Facility by the Owner and Operator for five (5) years after the routine in-service inspection and shall be made available for review at the Department's request.

6.2.6 The routine in-service inspection program shall be developed and implemented within 180 days of the effective date of these Regulations.

6.3. External Inspections

6.3.1 External inspections shall at a minimum follow the latest approved edition of nationally recognized codes, standards, guidelines or recommended practices including but not limited to API 653, API 570, and NACE RP-0294.

6.3.2 External inspection frequencies for ASTs and aboveground Ancillary Piping shall follow the recommended guidelines, codes, standards or recommended practices referenced in §6.3.1 of this Part, including but not limited to the calculated corrosion rate, but in no instance shall the external inspection frequency exceed five (5) years.

6.3.3 Only Certified API 653 Inspectors and Certified API 570 Inspectors shall perform external inspections. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank In-service Inspection Checklist* and API 570 *Appendix D, External Inspection Checklist for Process Piping* and including the condition of the Secondary Containment, shall be developed and completed for each AST and aboveground Ancillary Piping at each external inspection. Where material thickness measurements are performed, only qualified American Society for Non Destructive Testing (ASNT) SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing material thickness measurements shall perform the test.

6.3.4 External inspection reports including calibration of material thickness testing equipment shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

6.4. Internal Inspections

6.4.1 Internal inspections shall at a minimum follow the latest approved edition of nationally recognized standards, guidelines or recommended practices including but not limited to API 653 and, if applicable, NACE RP-0294.

6.4.2 The internal inspection shall at a minimum be completed in accordance with the recommended guidelines, codes, standards or recommended practices referenced in §6.4.1 of this Part or other equivalent procedure approved by the Department. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank Out-Of-Service Inspection Checklist* shall be developed and completed for each AST at each internal inspection.

6.4.3 Internal inspection frequencies for ASTs with an established documented corrosion rate, as of the effective date of these Regulations, shall follow the inspection frequency of API 653 or NACE RP-0294 as applicable including but not limited to the use of calculated corrosion rates.

6.4.4 The AST corrosion rates shall not be based on experience with ASTs in similar service unless previously approved by the Department.

6.4.5 Only Certified API 653 Inspectors shall perform the internal inspections. Where non-destructive testing methods are performed, only qualified American Society for Non Destructive Testing (ASNT) SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing non-destructive testing shall perform the test.

6.4.6 Alternative internal inspection intervals may be established as outlined in API 653 using the risk based inspection procedures, robotics, statistical analysis and related methods allowed by API 653. Any alternative method shall be approved by the Department prior to implementation.

6.4.7 Internal inspection reports shall be submitted to the Department and shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

Section 7. Inspection Requirements for Metallic Shop-Fabricated ASTs

7.1. General Requirements

7.1.1 All New and Existing metallic Shop-Fabricated ASTs shall meet or exceed the applicable standards or recommendations in API 653 or STI-SP001 or NACE RP0294 or the requirements in this Section whichever are more stringent.

7.1.2 Owners and Operators shall notify the Department in writing ten (10) days prior to work commencing when all New and Existing metallic Shop-Fabricated ASTs subject to these Regulations are emptied for maintenance, repairs, or removed from service.

7.1.3 All New metallic Shop-Fabricated ASTs shall complete an internal inspection in accordance with §7.4 of this Part, within ten years of the date of completion of the installation. All Existing metallic Shop-Fabricated ASTs shall complete an internal inspection in accordance with §7.4 of this Part, within three (3) years of the effective date of these Regulations, except those ASTs that are in compliance with an established, documented API 653 or STI-SP001 or NACE RP0294 inspection schedule.

7.1.4 All New metallic Shop-Fabricated ASTs shall complete an external inspection in accordance with §7.3 of this Part, within five years of the date of completion of the installation. All Existing metallic Shop-Fabricated ASTs shall complete an external inspection in accordance with §7.3 of this Part, within one year of the effective date of these Regulations, except those ASTs that are in compliance with an established, documented API 653 or STI-SP001 or NACE RP0294 inspection schedule.

7.1.5 When an AST has been tested or inspected as required by these Regulations, the Owner and Operator shall immediately initiate the actions required or recommended by the report of the Certified API 653 Inspector or the Certified STI-SP001 Inspector, including but not limited to recommendations for repair or removal from service.

7.1.6 A report of the findings of any API 653 or STI SP001 inspection that concludes the AST is not fit for service shall be submitted to the Department and the AST Owner and Operator within thirty (30) days of the conclusion of the inspection. The Owner and Operator shall submit to the Department with the API 653 or STI-SP001 inspection report an additional report detailing a proposed course of action including but not limited to removal of the AST contents and a schedule for repairs prior to the AST being returned to service. Removal of the AST contents shall commence within five (5) days of the conclusion that the AST is not fit for service and completion of the removal of the AST contents shall not exceed ninety (90) days, unless an alternative schedule is approved by the Department.

7.1.7 Any Existing metallic Shop-Fabricated AST not meeting the material specification requirements of UL 2085, UL 142, or API 650 Appendix J, shall be

reviewed and analyzed by the appropriate professional engineering disciplines to determine the AST's fitness for service. In no instance shall the review exceed ninety (90) days. A report shall be written and submitted to the AST Owner and Operator and the Department within thirty (30) days of the conclusion of the review detailing the findings of the review and shall propose a course of action. The Department shall review the report and issue an approval or denial for the continued use of the AST to store a Regulated Substance within thirty (30) days of the Department's receipt of the report.

7.1.8 Owners and Operators of ASTs shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of Part E at any time evidence of a Release or Leak is noted during the course of an inspection.

7.1.9 Underground Pipe is not subject to the requirements of Part C, §7 of these Regulations.

7.2. Routine In-Service Inspections

7.2.1 The routine in-service inspection shall monitor the external condition of the AST and all aboveground Ancillary Piping at an interval not to exceed thirty (30) days.

7.2.2 The routine in-service inspection shall at a minimum be completed in accordance with the guidance contained in API 653 or STI-SP001 and API 570 or other equivalent procedure approved by the Department. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank In-service Inspection Checklist* and API 570 *Appendix D, External Inspection Checklist for Process Piping* and including the condition of the Secondary Containment shall be developed and completed for each AST and aboveground Ancillary Piping at each routine in-service inspection. For ASTs equipped with a Release Prevention Barrier or a double bottom, the checklist shall include criteria for visual inspection for evidence of Releases and Leaks.

7.2.3 The routine in-service inspection may be completed by Owner and Operator designated personnel other than an API or STI certified inspector. If designated personnel are not specifically certified in accordance with API 653 or STI-SP001, training shall include but is not limited to the following:

7.2.3.1 Basic information regarding occupational safety, hazard recognition, personnel protection, and Facility operations; and

7.2.3.2 The procedures to be followed in conducting the daily visual and weekly Facility inspections; and

7.2.3.3 The procedures to be followed upon recognition of a hazard or the potential for a hazard; and

7.2.3.4 The procedure for evaluating the condition of the AST and appurtenances; and

7.2.3.5 The procedures for responding to Releases and Leaks of a Regulated Substance.

7.2.3.6 Records of training shall be maintained at the Facility by the Owner and Operator for five (5) years after the termination date of employment for personnel and shall be made available for review at the Department's request.

7.2.4 The routine in-service inspection shall include close visual inspection from the ground.

7.2.5 Routine in-service inspection reports shall be retained at the Facility by the Owner and Operator for five (5) years after the routine in-service inspection and shall be made available for review at the Department's request.

7.2.6 The routine in-service inspection program shall be developed and implemented within 180 days of the effective date of these Regulations.

7.3. External Inspections

7.3.1 External inspections shall at a minimum follow the latest approved edition of nationally recognized codes, standards, guidelines or recommended practices including but not limited to API 653, API 570, and NACE RP-294 or STI-SP001.

7.3.2 External inspection frequencies for ASTs and aboveground Ancillary Piping shall follow the recommended guidelines, codes, standards or recommended practices referenced in §7.3.1 of this Part including but not limited to the calculated corrosion rate, but in no instance shall the external inspection frequency exceed five (5) years.

7.3.3 Only Certified API 653 Inspectors or Certified STI-SP001 Inspectors or Certified API 570 Inspectors shall perform external inspections. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank In-service Inspection Checklist* and API 570 *Appendix D, External Inspection Checklist for Process Piping* and including the condition of the Secondary Containment, shall be developed and completed for each AST and aboveground Ancillary Piping at each external inspection. Where material thickness measurements are performed, only qualified American Society for Non Destructive Testing (ASNT) SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing material thickness measurements shall perform the test.

7.3.4 External inspection reports shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

7.4. Internal Inspections

7.4.1 Internal inspections shall follow the latest approved edition of nationally recognized standards, guidelines or recommended practices including but not limited to API 653 and, if applicable, NACE RP-0294 or STI-SP001.

7.4.2 The internal inspection shall at a minimum be completed in accordance with the recommended guidelines, codes, standards or recommended practices referenced in §7.4.1 of this Part or other equivalent procedure approved by the Department. An appropriate check list containing at a minimum the criteria in API 653 *Appendix C, Tank Out-of-service Inspection Checklist* shall be developed and completed for each AST at each internal inspection.

7.4.3 Internal inspection frequencies for ASTs with an established documented corrosion rate, as of the effective date of these Regulations, shall follow the inspection frequency of API 653 or NACE RP-0294 or STI-SP001 as applicable including but not limited to the use of calculated corrosion rates.

7.4.4 The AST corrosion rate shall not be determined based upon experience with tanks in similar service, unless previously approved by the Department.

7.4.5 Only Certified API 653 Inspectors or Certified STI-SP001 Inspectors shall perform the internal inspections. Where non-destructive testing methods are performed, only qualified SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing non-destructive testing shall perform the test.

7.4.6 Alternative internal inspection intervals may be established as outlined in API 653 using the risk based inspection procedures, robotics, statistical analysis and related methods allowed by API 653. Any alternative method shall be approved by the Department prior to implementation.

7.4.7 Internal inspection reports shall be submitted to the Department and shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

Section 8. Inspection Requirements for Non-Metallic Field-Constructed and Shop-Fabricated ASTs

8.1. Fiber Reinforced Thermosetting Plastic (FRTP) Field Constructed and Shop-Fabricated ASTs

8.1.1 General Requirements

8.1.1.1 All non-metallic Field Constructed or Shop Fabricated ASTs constructed of fiber reinforced thermosetting plastic (FRTP) shall meet or exceed the Requirements in this Section or the reference standards in this Section whichever are more stringent.

8.1.1.2 Inspections shall only be performed by inspectors familiar with ASTs constructed of fiber reinforced thermosetting plastic and qualified by experience for such inspections, including but not limited to those individuals certified under:

8.1.1.2.1. ASME RTP-1; or

8.1.1.2.2. National Board Inspection Code.

8.1.1.3 The Owner and Operator shall notify the Department in writing ten (10) days prior to work commencing when ASTs subject to this Section are emptied for maintenance, repairs, or removed from service.

8.1.1.4 When a FRTP AST has been tested or inspected as required by these Regulations the Owner and Operator shall immediately initiate the actions required or recommended by the report of the certified inspector or the experience qualified individual, including but not limited to recommendations for repair or removal from service.

8.1.1.5 A report of the findings of any inspection required by this Section that concludes the AST is not fit for service shall be submitted to the Department and the AST Owner and Operator within thirty (30) days of the conclusion of the inspection. The Owner and Operator shall submit to the Department with the inspection report an additional report detailing a proposed course of action including but not limited to removal of the AST contents and a schedule for repairs prior to the AST being returned to service. Removal of the AST contents shall commence within five (5) days of the conclusion that the AST is not fit for service and completion of the removal of the AST contents shall not exceed ninety (90) days, unless an alternative schedule is approved by the Department.

8.1.1.6 Owners and Operators of ASTs shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of

Part E at any time evidence of a Release or Leak is noted during the course of an inspection.

8.1.2 Applicability and Scope of Inspections

8.1.2.1 All routine in-service inspections, external inspections, and internal inspection requirements for ASTs constructed of fiber reinforced thermosetting plastic shall apply to any ASTs which are constructed with a structural laminate and a liner to protect the structural laminate. The structural laminate is defined as one or more layers of reinforced resin material bonded together. The inspection shall evaluate damage to the AST from mechanical sources and from Regulated Substances, acids, alkalis, compounds containing fluorine, hydrocarbons, and water.

8.1.2.2 All exposed surfaces shall be visually examined during external and internal inspections for defects, and mechanical and environmental damage in the liner or the laminate. Classification and acceptance of any defects in the liner or laminate shall be according to Table 1 in NBIC Appendix 9. Defects to look for shall include but are not limited to:

8.1.2.2.1. Cracks;

8.1.2.2.2. Separation of secondary edges;

8.1.2.2.3. Leaks, especially around nozzles;

8.1.2.2.4. Discolored areas;

8.1.2.2.5. Areas of mechanical damage such as impacts or gouges;

8.1.2.2.6. Surface deterioration or fiber exposure;

8.1.2.2.7. Cracked or broken attachments;

8.1.2.2.8. Damage due to dynamic loading;

8.1.2.2.9. Defective supports;

8.1.2.2.10. Delaminations;

8.1.2.2.11. Blisters.

8.1.2.3 A careful observation shall be made of the condition of the complete AST, including but not limited to, maintenance and operation of the AST as a guide in forming an opinion of the care the AST receives. The history of the AST shall be established, and shall include, but is not limited to, the date which the AST was constructed or installed, the service history, the maintenance history, and a review of previous

inspection records. Process conditions shall be reviewed to identify areas most likely to sustain damage. Surface cleaning procedures and requirements shall also be reviewed.

8.1.2.4 The following tools shall be available to inspectors and used when necessary by inspectors while performing external and internal inspections:

8.1.2.4.1. Adequate lighting including overall lighting and a portable lamp for close inspections; and

8.1.2.4.2. Hand held magnifying glass; and

8.1.2.4.3. Barcol hardness tester; and

8.1.2.4.4. Small pick or pen knife; and

8.1.2.4.5. Small quantity of acetone and cotton swabs; and

8.1.2.4.6. Camera with a flash capability; and

8.1.2.4.7. Liquid penetrant testing kit.

8.1.3 Inspector Qualifications for External and Internal Inspections

8.1.3.1 Only inspectors familiar with ASTs constructed of fiber reinforced thermosetting plastic and qualified by experience shall perform external and internal inspections. These inspectors include, but are not limited to individuals certified under ASME RTP-1 and NBIC. The inspector shall be able to read a Jaeger Type No. 1 Standard Chart at a distance of not less than 12 inches. The inspector shall be capable of distinguishing and differentiating contrast between colors. Visually acuity shall be checked annually.

8.1.4 Initial Inspection Requirements

8.1.4.1 Internal Inspection Requirements

8.1.4.1.1. All New Fiber Reinforced Thermosetting Plastic Shop-Fabricated and Field Constructed ASTs shall complete an internal inspection in accordance with §8.17 of this Part, within one year of being placed into service.

8.1.4.1.2. All Existing Fiber Reinforced Thermosetting Plastic Shop-Fabricated and Field Constructed ASTs shall complete an internal inspection in accordance with §8.17 of this Part within three (3) years of the effective date of these Regulations, except those ASTs that have an established, documented inspection schedule that includes the inspection criteria and frequency established in this Section

8.1.4.2 External Inspection Requirements

8.1.4.2.1. All New Fiber Reinforced Thermosetting Plastic Shop-Fabricated and Field-Constructed ASTs shall complete an external inspection in accordance with §8.16 of this Part, within three (3) years of the date of the AST being placed into service.

8.1.4.2.2. All Existing Fiber Reinforced Thermosetting Plastic Shop-Fabricated and Field-Constructed ASTs shall complete an external inspection in accordance with §8.16 of this Part, within three (3) years of the effective date of these Regulations, except ASTs that have an established, documented inspection schedule that includes the inspection criteria and frequency established in this Section.

8.1.5 Routine In-Service Inspections

8.1.5.1 A routine in-service inspection shall monitor the external condition of the AST and all aboveground Ancillary Piping at an interval not to exceed thirty-one (31) days. *[Amended 2005]*

8.1.5.2 The routine in-service inspection shall include a visual external inspection of the AST's exterior surfaces. An appropriate check list containing at a minimum the criteria in §8.1.5.3.4 of this Part and API 653 *Appendix C, Tank In-service Inspection Checklist* and API 570 *Appendix D, External Inspection Checklist for Process Piping* and including the condition of the Secondary Containment, will be developed and completed for each AST at each routine in-service inspection. For ASTs equipped with a Release Prevention Barrier or a double bottom, the checklist shall include criteria for visual inspection for evidence of Releases and Leaks.

8.1.5.3 The routine in-service inspection may be completed by Owner and Operator designated personnel other than an API , STI, ASME RTP-1, or NBIC certified inspector. If designated personnel are not specifically trained in accordance with a nationally recognized certification program, training shall include but is not limited to the following:

8.1.5.3.1. Basic information regarding occupational safety, hazard recognition, personnel protection, and Facility operations; and

8.1.5.3.2. The procedures to be followed in conducting the daily visual and weekly Facility inspections; and

8.1.5.3.3. The procedures to be followed upon recognition of a hazard or the potential for a hazard; and

8.1.5.3.4. The procedures for evaluating the condition of the AST and appurtenances including but not limited to the following:

8.1.5.3.4.1. Shell distortations;
8.1.5.3.4.2. Signs of settlement;
8.1.5.3.4.3. Condition of the foundation;
8.1.5.3.4.4. Condition of the insulation;
8.1.5.3.4.5. Cracks;
8.1.5.3.4.6. Separation of secondary edges;
8.1.5.3.4.7. Discolored areas;
8.1.5.3.4.8. Areas of mechanical damage such as impacts and gouges;
8.1.5.3.4.9. Surface deterioration and fiber exposure;
8.1.5.3.4.10. Damage due to dynamic loading;
8.1.5.3.4.11. Defective supports;
8.1.5.3.4.12. Delaminations;
8.1.5.3.4.13. Blisters.

8.1.5.3.5. The procedures for responding to Releases and Leaks of a Regulated Substance.

8.1.5.3.6. Records of training shall be maintained at the Facility by the Owner and Operator for five (5) years after the termination date of employment for personnel and shall be made available for review at the Department's request.

8.1.5.4 The routine in-service inspection shall include close visual inspection from the ground.

8.1.5.5 Routine in-service inspection reports shall be retained at the Facility by the Owner and Operator for five (5) years after the routine in-service inspection and shall be made available for review at the Department's request.

8.1.5.6 The routine in-service inspection program shall be developed and implemented within 180 days of the effective date of these Regulations.

8.1.6 External Inspections

8.1.6.1 General Requirements

8.1.6.1.1. External inspections shall at a minimum follow the Requirements of this Section.

8.1.6.1.2. External inspection frequencies shall at a minimum follow the Requirements of this Section, but in no instance shall the external inspection frequency exceed five (5) years.

8.1.6.1.3. Where material thickness measurements are performed, only qualified American Society for Non Destructive Testing (ASNT) SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing material thickness measurements shall perform the test.

8.1.6.1.4. External inspection reports including calibration of material thickness testing equipment shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

8.1.6.2 Specific Requirements

8.1.6.2.1. The external inspection shall include the examination of the exterior surfaces of the AST and its structural attachments and appurtenances for defects and mechanical, thermal, and environmental damage. All exposed surfaces shall be examined for evidence of damage from impact, gouging, abrasion, scratching, and temperature variations. External inspections shall include examination for areas exposed to sunlight that may be degraded by the ultraviolet light with a resulting change in surface color and increase fiber prominence. External inspections shall include examination for a change in color as a result of damage from overheating. Insulation shall be removed to the extent necessary to determine the condition of the exterior surfaces of the AST. The areas to inspect shall include but is not limited to the following:

8.1.6.2.1.1. Nozzle attachments;
8.1.6.2.1.2. Gusset attachments;
8.1.6.2.1.3. Flanges;
8.1.6.2.1.4. Secondary joints;
8.1.6.2.1.5. Hold down lugs;
8.1.6.2.1.6. Lifting lugs;
8.1.6.2.1.7. Gauge attachments.

8.1.6.2.2. Attachments of legs, saddles, skirts, or other components shall be examined for cracks where the component attaches to or contacts the AST. The exterior surface of the AST in the vicinity of the attached component shall be examined for cracks.

8.1.6.2.3. Piping loads on nozzles may be excessive. Therefore, all nozzles shall be closely examined for cracks.

8.1.6.2.4. The location of all external damage shall be noted so that the opposing internal surface at that location can be examined. For example, an impact load applied to the outer surface may be transmitted through the laminate causing a star crack in the inner surface.

8.1.6.2.5. If known upsets occur which are outside the AST's designed specifications, then an external inspection shall be performed within thirty (30) days of the upset to ensure the integrity of the AST.

8.1.6.2.6. The following factors shall be considered when determining whether the initial external inspection interval after being placed in service and subsequent external inspections intervals need to be shortened to ensure the integrity of the AST:

8.1.6.2.6.1. The distance between the AST and personnel and other equipment;
8.1.6.2.6.2. Contains Regulated Substances or is subject to conditions known to degrade or shorten the life of the laminates or liner;
8.1.6.2.6.3. Past experience has shown that more frequent external inspection are necessary;
8.1.6.2.6.4. Insurance or other regulatory requirements.

8.1.7 Internal Inspections

8.1.7.1 General Requirements

8.1.7.1.1. Internal inspections shall at a minimum follow the Requirements of this Section.

8.1.7.1.2. Internal inspection frequencies shall at a minimum follow the Requirements of this Section, but in no instance shall the internal inspection frequency exceed ten (10) years, or other schedule approved by the Department.

8.1.7.1.3. Where non-destructive testing methods are performed, only qualified SNT–TC-1A, latest edition, Level II technician or ASNT Central Certification Program Level II technician or Certified API 653 Inspectors with experience in performing non-destructive testing methods shall perform the test.

8.1.7.1.4. Internal inspection reports shall be submitted to the Department and shall be retained at the Facility for the life of the AST by current and future Owners and Operators.

8.1.7.2 Specific Requirements

8.1.7.2.1. The internal inspection shall include examination of the AST to ensure the integrity of the liner and the structural laminate has not been compromised. The laminate shall be examined for damage caused by the following conditions:

8.1.7.2.1.1. Excessive service temperature;
8.1.7.2.1.2. Mechanical or service abuse;
8.1.7.2.1.3. Ultraviolet light.

8.1.7.2.2. Surfaces shall be dry and clean for the internal inspection. Every effort shall be made to minimize damage to the liner, if the AST is so equipped, during the internal inspection. Defects or damage to look for during the internal inspection shall include but is not limited to the following:

8.1.7.2.2.1. Indentations;
8.1.7.2.2.2. Cracks;
8.1.7.2.2.3. Porosity;
8.1.7.2.2.4. Exposed fibers;
8.1.7.2.2.5. Lack of resin;
8.1.7.2.2.6. Delamination;
8.1.7.2.2.7. Thinning at points of fluid impingement;
8.1.7.2.2.8. Blisters;
8.1.7.2.2.9. Scratches;
8.1.7.2.2.10. Gouges;
8.1.7.2.2.11. Discolorations.

8.1.7.2.3. All surfaces shall be examined with both direct and oblique illumination. Color differences, opacity, stains, wetness, roughness, or any deviation from the original surface based upon the original cutout sample) condition shall be noted and investigated. Liquid level lines shall be defined so the laminate condition in both the wet and dry zones can be determined. The following areas shall be closely examined for cracks, porosity, or chemical attacks on the liner or laminate:

8.1.7.2.3.1. Fittings;
8.1.7.2.3.2. Changes in shape;
8.1.7.2.3.3. Baffles;
8.1.7.2.3.4. Secondary overlays;
8.1.7.2.3.5. Nozzles;

8.1.7.2.3.6. Cut edges;

8.1.7.2.3.7. Supports and internal structures and areas of attachment.

8.1.7.2.4. The inspector shall look for cracks, porosity, and any indication of deterioration of the liner and laminate. Liquid penetrant examination per RT-630 of ASME Section X may be used to locate and determine the extent of cracks. Deterioration of the surface may include softening of fiber prominence.

8.1.7.2.5. A Barcol 934-1 hardness test, which can be found in the Standard ASTM D-2583, shall be performed on areas of suspected laminate degeneration. The resin hardness values shall be used to monitor the condition of the laminate over time as compared to the initial hardness value. If the corrosion resistant barrier shows such severe attack (for example, loose chopped strand glass mat fibers) that penetration of the corrosion barrier appears imminent before the next scheduled internal inspection, then the corrosion barrier shall be replaced.

8.1.7.2.6. If known upsets occur which are outside the AST's design specifications then an internal inspection shall be performed within thirty (30) days of the upset to ensure the integrity of the AST.

8.1.7.2.7. The following factors shall be considered when determining whether the initial internal inspection interval after being placed in service and subsequent external inspections intervals need to be shortened to ensure the integrity of the AST:

8.1.7.2.7.1. The distance between the AST and personnel and other equipment;

8.1.7.2.7.2. Contains Regulated Substances or is subject to conditions known to degrade or shorten the life of the laminates or liner;

8.1.7.2.7.3. Past experience has shown that more frequent external inspection are necessary;

8.1.7.2.7.4. Insurance or other regulatory requirements.

8.1.8 Underground Pipe is not subject to the requirements of Part C, §8 of these Regulations.

8.2. Other Non-Metallic Field-Constructed and Shop-Fabricated ASTs

8.2.1 General Requirements

8.2.1.1 Owners and Operators of non-metallic Field-Constructed or Shop-Fabricated ASTs constructed of material other than fiber reinforced thermosetting plastic, shall submit to the Department for approval before implementation, a schedule and criteria for inspections and testing. Inspection criteria shall include routine inspections, internal inspections and external inspections. Testing criteria shall include non-destructive testing and thickness measurements. The Owner and Operator shall also meet any applicable Referenced Standards.

8.2.1.2 The Owner and Operator shall notify the Department in writing ten (10) days prior to work commencing when ASTs subject to this Section are emptied for maintenance, repairs, or removed from service.

8.2.1.3 When a non-metallic AST has been tested or inspected as required by these Regulations, the Owner and Operator shall immediately initiate the actions required or recommended by the report of the certified inspector or the experience qualified individual, including but not limited to recommendations for repair or removal from service.

8.2.1.4 A report of the findings of any inspection required by this Section that concludes the AST is not fit for service shall be submitted to the Department and the AST Owner and Operator within thirty (30) days of the conclusion of the inspection. The Owner and Operator shall submit to the Department with the inspection report an additional report detailing a proposed course of action including but not limited to removal of the AST contents and a schedule for repairs prior to the AST being returned to service. Removal of the AST contents shall commence within five (5) days of the conclusion that the AST is not fit for service and completion of the removal of the AST contents shall not exceed ninety (90) days, unless an alternative schedule is approved by the Department.

8.2.1.5 Inspections shall only be performed by inspectors familiar with the non-metallic material or materials from which the AST is constructed and qualified by experience for such inspections, including but not limited to those individuals certified under:

8.2.1.5.1. ASME RTP-1; or

8.2.1.5.2. National Board Inspection Code.

Section 9. Inspection and Monitoring Requirements for Leak Detection

9.1. General Requirements

9.1.1 A Leak of Regulated Substances shall be detected and contained to prevent an impact on surface water, groundwater, or soil outside the Secondary Containment.

9.1.2 Leak Detection methods other than visual shall be calibrated, tested, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance checks for operability to ensure that the device is functioning as designed.

9.1.3 All manufacturers' instructions and the performance claims and their manner of determination described in writing by the equipment manufacturer or installer for the Leak Detection method shall be retained at the Facility for the life of the AST.

9.2. Leak Detection Inspection and Monitoring

9.2.1 The Leak Detection method or combination of methods used, except for those ASTs equipped with a Release Prevention Barrier or a double bottom, shall be inspected and monitored at least weekly to determine if a Leak from the AST has occurred,. A checklist for each Leak Detection monitoring point shall be generated to document whether a Leak did or did not occur.

9.2.1.1 Leak Detection checklists that did not document a Leak shall be retained at the Facility by the Owner and Operator for five (5) years after the Leak Detection inspection and shall be made available for review at the Department's request.

9.2.1.2 Leak Detection checklists that did document a Leak shall be retained at the Facility by the Owner and Operator for the life of the AST by current and future Owners and Operators.

9.2.1.3 Owners and Operators shall adhere to the reporting requirements of Part A, §8 and the corrective action requirements of Part E at any time evidence of a Leak is noted during the course of an inspection.

Section 10. Inspection and Monitoring Requirements for Inerting and Deflagration Prevention Systems

10.1. General Requirements

10.1.1 All ASTs subject to the Inerting Requirements of these Regulations shall have the Inerting system or other Department approved Deflagration prevention system continuously in place, in use, and operating to design specifications whenever an AST is in service and has the potential for a Flammable atmosphere. The system shall be in place, in use and operated to design specifications unless the AST has been cleaned sufficiently and purged of Flammable vapors to safely permit hot work in, on or around the AST.

10.1.2 Owners and Operators of ASTs subject to the Inerting Requirements of these Regulations shall adhere to the reporting requirements of Part B, §12 at any time the Inerting system or other Department approved Deflagration prevention system is not operating in compliance with the requirements of Part B, §12.

10.2. Inspection and Monitoring

10.2.1 Inerting systems and other Department approved Deflagration prevention systems shall be calibrated, tested, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance checks for operability to ensure that the system is functioning as designed. However, in no instance shall the calibration and testing of the Inerting system or other Department approved Deflagration system exceed one year.

10.2.1.1 Records of the calibration, testing, and maintenance of Inerting systems and other Department approved Deflagration prevention systems shall be made and shall be retained at the Facility by the Owner and Operator for five (5) years after the report was generated. Reports shall be made available for review at the Department's request.

10.2.2 All manufacturers' instructions, and the performance claims and their manner of determination described in writing by the equipment manufacturer or installer for the Inerting system or Deflagration prevention system shall be retained at the Facility for the life of the AST.

PART D.

FINANCIAL RESPONSIBILITY REQUIREMENTS FOR ASTs

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Section 1. Applicability

1.1. This Part applies to Owners and Operators of ASTs as defined in Title 7 Del. C., Chapter 74A, §7402A and not otherwise exempt under Title 7 Del. C., Chapter 74A, §7404A or §1.2 of this Section.

1.2. An AST that is subject to and in compliance with the financial requirements of *Delaware's Regulations Governing Hazardous Waste* or 40 CFR 264 or 40 CFR 265 is exempt from compliance with this Part.

1.3. Financial responsibility under this Part is only applicable to Accidental Releases occurring after the date established in §2 of this Part.

1.4. The State and Federal government entities whose debts and liabilities are the debts and liabilities of the State or the United States are exempt from the Requirements of this Part for ASTs owned by a State or Federal government entity.

1.5. If the Owner and Operator of an AST are separate Persons, only one Person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance. Regardless of which party complies, the date set for compliance is established in §2 of this Part.

Section 2. Compliance Dates and Documentation of Compliance

2.1. Owners and Operators of ASTs shall comply with the requirements of this Part by June 1, 2005.

2.2. The Owner and Operator shall submit the appropriate documentation as referenced in §§5 -15 and Appendices A-Q of this Part on an annual basis to the Department as proof of compliance with the financial assurance requirements of this Part. The Owner and Operator shall maintain a copy of all documentation as referenced in §§5 - 15 and Appendices A-Q of this Part.

2.3. Owners and Operators shall maintain evidence of all current and historical financial assurance mechanisms used to demonstrate financial responsibility under this Part until released from the requirements under §19 of this Part.

2.4. Records documenting compliance with the Financial Responsibility Requirements of this Part shall be made available upon the request of the Department.

Section 3. Amount and Scope of Required Financial Responsibility

3.1. Owners and Operators of ASTs shall demonstrate financial responsibility for taking corrective action and for compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases from the operation of ASTs in at least the following amounts. Aggregate storage capacities used to establish the following levels of financial responsibility are the total storage capacity of all applicable ASTs in the State of Delaware:

3.1.1 For a Person owning aggregate storage capacity less than or equal to 500,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of $500,000 per Occurrence and $1 million Annual Aggregate. *[Amended 2005]*

3.1.2 For a Person owning aggregate storage capacity of greater than 500,000 gallons and less than or equal to 1,000,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of $1 million per Occurrence and $1 million Annual Aggregate. *[Amended 2005]*

3.1.3 For a Person owning aggregate storage capacity of greater than 1,000,000 gallons and less than or equal to 3,000,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of $1 million per Occurrence and $2 million Annual Aggregate. *[Amended 2005]*

3.1.4 For a Person owning aggregate storage capacity of greater than 3,000,000 gallons and less than or equal to 5,000,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of $2 million per Occurrence and $4 million Annual Aggregate. *[Amended 2005]*

3.1.5 For a Person owning aggregate storage of greater than 5,000,000 gallons, the demonstration of financial responsibility for corrective action and third-party liability shall be a minimum of $3 million per Occurrence and $6 million Annual Aggregate. *[Amended 2005]*

3.2. The amount of financial responsibility required under this Section excludes legal defense and administrative costs.

3.3. The required per Occurrence and Annual Aggregate coverage amounts do not in any way limit the liability of the Owner and Operator.

3.4. The Annual Aggregate on ASTs is separate from the Annual Aggregate on underground storage tanks.

3.5. Owners and Operators shall review the amount of financial responsibility provided whenever additional ASTs are installed to comply with the requirements of §3.1 of this Part.

Section 4. Allowable Mechanisms and Combinations of Mechanisms

4.1. Except as provided by §§4.2 and 4.3 of this Section:

4.1.1 An Owner and Operator may use any one or combination of the mechanisms listed in §§5 through 10 of this Part, inclusive, to satisfy the requirements of §3 of this Part.

4.1.2 A Local Government Owner and Operator may use any one or combination of the mechanisms listed in §§5 through 14 of this Part, inclusive, to satisfy the requirements of §3 of this Part.

4.2. An Owner and Operator may use self-insurance in combination with a guarantee only if, for the purpose of meeting the requirements of the financial test under this rule, the financial statements of the Owner and Operator are not consolidated with the financial statements of the Guarantor.

4.3. If the Owner and Operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for:

4.3.1 Taking corrective action; and

4.3.2 Compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases; the amount of financial responsibility provided by the combination of mechanisms shall be in the full amount specified in §3.1 of this Section.

4.4. Where an Owner or Operator uses a combination of separate mechanisms to cumulatively demonstrate financial responsibility, the mechanisms shall clearly and expressly state the order and priority of the mechanisms in paying for corrective action and/or compensation of third parties, and such order and priority shall be consistent with all regulatory requirements for demonstrating financial responsibility.

Section 5. Self Insurance

5.1. To satisfy the requirements of §3 of this Part by self insurance, the Owner, Operator, or Guarantor shall;

5.1.1 Meet the financial test in §5.2 or §5.3 of this Section based on year-end financial statements for the latest completed Financial Reporting Year; and,

5.1.2 Complete Appendix A of this Part exactly as shown, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted; and,

5.1.3 Submit the completed Appendix A of this Part to the Department, signed by the Chief Financial Officer of the Owner, Operator, or Guarantor, within 120 days of the close of each fiscal year.

5.2. Alternative I – Net Worth Test

5.2.1 The Owner, Operator, or Guarantor, shall have a Tangible Net Worth of at least $10 million; and

5.2.2 The Owner, Operator, or Guarantor, shall have a Tangible Net Worth of at least ten times the sum of the following:

5.2.2.1 The applicable Annual Aggregate amount required by §3 of this Part less the amount obtained through another mechanism or combination of mechanisms in accordance with §4 of this Part, for which a financial test is used to demonstrate financial responsibility to the Department under this Section; and

5.2.2.2 Any other liability coverage for which the Owner or Operator is using the test to demonstrate financial responsibility to the State or EPA, (this includes but is not limited to Subtitle C Hazardous waste facilities, SDWA hazardous waste injection wells, Subtitle I Underground Storage Tank facilities), and

5.2.3 The Owner, Operator, or Guarantor, shall either:

5.2.3.1 File financial statements annually with the U.S. Securities and Exchange Commission (SEC), the Energy Information Administration (EIA), or the Rural Utilities Service (RUS), the Board of Governors of the Federal Reserve System, the Comptroller of the Currency or the Federal Deposit Insurance Corporation; or

5.2.3.2 Annually report the firm's Tangible Net Worth to Dun & Bradstreet, and Dun & Bradstreet shall have assigned the firm a financial strength rating of 4A or 5A, and

5.2.4 The firm's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion, a disclaimer of opinion, or a going concern qualification.

5.3. Alternative II - Net Working Capital Test

5.3.1 The Owner, Operator, or Guarantor shall have a Tangible Net Worth of at least $10 million; and

5.3.2 The Owner, Operator, or Guarantor shall have a Tangible Net Worth of six times the sum of the following:

5.3.2.1 The applicable Annual Aggregate amount required by §3 of this Part less the amount obtained through another mechanism or combination of mechanisms in accordance with §4 of this Part, for which a financial test is used to demonstrate financial responsibility to the Department under this Section; and

5.3.2.2 Any other liability coverage for which the Owner or Operator is using the test to demonstrate financial responsibility to the State or EPA, (this includes but is not limited to Subtitle C Hazardous waste facilities, SDWA hazardous waste injection wells, Subtitle I Underground Storage Tank facilities); and

5.3.3 The Owner, Operator, or Guarantor shall have either:

5.3.3.1 At least 90 percent of assets are in the United States, or

5.3.3.2 U.S. assets are at least six times the sum of the following:

5.3.3.2.1. The applicable Annual Aggregate amount required by §3 of this Part less the amount obtained through another mechanism or combination of mechanisms in accordance with §4 of this Part, for which a financial test is used to demonstrate financial responsibility to the Department under this Section; and

5.3.3.2.2. Any other liability coverage for which the Owner or Operator is using the test to demonstrate financial responsibility to the State or EPA, (this includes but is not limited to Subtitle C Hazardous waste facilities, SDWA hazardous waste injection wells, Subtitle I Underground Storage Tank facilities); and

5.3.4 The Owner, Operator, or Guarantor shall have either

5.3.4.1 Net working capital of at least six times the sum of the following:

5.3.4.1.1. The applicable Annual Aggregate amount required by §3 of this Part less the amount obtained through another mechanism or combination of mechanisms in accordance with §4 of this Part, for which a financial test is used to demonstrate financial responsibility to the Department under this Section; and

5.3.4.1.2. Any other liability coverage for which the Owner or Operator is using the test to demonstrate financial responsibility to the State or EPA, (this includes but is not limited to Subtitle C Hazardous Waste Facilities, SDWA Hazardous Waste Injection Wells, Subtitle I Underground Storage Tank Facilities); or

5.3.4.2 A current Standard & Poor's bond rating of AAA, AA, A or BBB, or a current Moody's bond rating of Aaa, Aa, A or Baa for the most recent bond issuance, and

5.3.5 The fiscal year-end financial statements of the Owner, Operator, or Guarantor, shall be independently audited, and cannot include an adverse auditor's opinion, a disclaimer of opinion, or a going concern qualification, and

5.3.6 If the financial statements of the Owner, Operator, or Guarantor are not submitted annually to the U.S. Securities and Exchange Commission (SEC), the Energy Information Administration (EIA) or the Rural Utilities Service (RUS) the Owner, Operator, or Guarantor using the Alternative II test, shall obtain a special report by an independent certified public accountant which contains the accountant's certification that there are no material differences between the financial data in the submission required under §5.1.3 of this Part and the independently audited year-end financial statements and footnotes for the latest completed Financial Reporting Year.

5.4. If an Owner or Operator finds that he or she no longer meets the Requirements of §5.1.1 of this Part, the Owner or Operator shall obtain alternative coverage within 150 days of the latest completed Financial Reporting Year.

5.5. The Department may require reports of financial condition at any time from the Owner, Operator, or Guarantor. If the Department finds, on the basis of such reports or other information, that the Owner, Operator, or Guarantor no longer meets the requirements of §5.1.1 of this Part, the Owner or Operator shall obtain alternate coverage within 30 days after notification by Verifiable Service of such a finding.

5.6. If the Owner and Operator fail to obtain alternate coverage within 150 days of finding that he or she no longer meets the Requirements of §5.1.1 of this Part, or within 30 days of notification by the Department that he or she no longer meets the Requirements of §5.1.1 of this Part , the Owner and Operator shall notify the Secretary of such failure within 10 days.

Section 6. Guarantee

6.1. An Owner or Operator may satisfy the requirements of §3 of this Part by obtaining a guarantee that conforms to the Requirements of this Section. The Guarantor shall be a business entity that:

6.1.1 Possesses a Controlling Interest in the Owner or Operator; or

6.1.2 Possesses a Controlling Interest in a firm that has a Controlling Interest in the Owner or Operator; or

6.1.3 Is an affiliate which is controlled through stock ownership by a common parent firm that possesses a Controlling Interest in the Owner or Operator; or

6.1.4 Is engaged in a Substantial Business Relationship with the Owner or Operator and is issuing the guarantee as an act incident to that business relationship.

6.2. The Guarantor shall:

6.2.1 Comply with §5 of this Part; and

6.2.2 Complete Appendix B of this Part, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted; and

6.2.3 Submit the completed Appendix B of this Part to the Department together with their submission under §5 of this Part; and

6.2.4 Provide the Owner or Operator with copies of their submissions under §§6.2.1 and 6.2.3 of this Part.

6.3. If the Guarantor fails to meet the requirements of the financial test at the end of any Financial Reporting Year, within 120 days of the end of that Financial Reporting Year the Guarantor shall send by Verifiable Service, before cancellation or non-renewal of the guarantee, notice to the Owner and Operator and to the Department. The guarantee will terminate no less than 120 days after the date the Owner and Operator receives the notification, as evidenced by Verifiable Service. The Owner or Operator shall obtain alternative coverage as specified in §17.2 of this Part.

6.4. If the Department notifies the Guarantor that he no longer meets the Requirements of §5.1.1 of this Part, the Guarantor shall notify the Owner and Operator by Verifiable Service within 10 days of receiving such notification from the Department. The guarantee will terminate no less than 120 days after the date the Owner and Operator receives the notification, as evidenced by Verifiable Service. The Owner or Operator shall obtain alternative coverage as specified in §17.2 of this Part.

6.5. The Owner or Operator who uses a guarantee to satisfy the Requirements of §3 of this Part shall also establish a standby trust fund at the same time that the guarantee is

obtained. Under the terms of the guarantee, all amounts paid by the Guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Department under §18 of this Part. This standby trust fund shall meet the requirements specified in §15 of this Part.

6.6. An Owner or Operator may use a guarantee to establish financial responsibility only if the State's Attorney General has submitted a written statement to the Department that a guarantee executed as described in this Section is a legally valid and enforceable obligation in the State of Delaware.

Section 7. Insurance and Risk Retention Group Coverage

7.1. An Owner or Operator may satisfy the requirements of §3 of this Part by obtaining liability insurance that conforms to the requirements of this Section. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

7.2. Each insurance policy shall be amended by an endorsement worded as specified in Appendix C of this Part or evidenced by a certificate of insurance worded as specified in Appendix D of this Part except that instructions in brackets shall be replaced with the relevant information and the brackets deleted.

7.3. Each insurance policy shall be issued by an insurer or a risk retention group that, at a minimum, is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more States and has a current Standard & Poor's rating of AAA, AA, A or BBB, or a current Moody's rating of Aaa, Aa, A or Baa.

Section 8. Surety Bond

8.1. An Owner or Operator may satisfy the requirements of §3 of this Part by obtaining a surety bond that conforms to the requirements of this Section. The surety company issuing the bond shall be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

8.2. The surety bond shall be worded as shown in Appendix E of this Part, except that instructions in brackets shall be replaced with the relevant information and the brackets deleted.

8.3. Under the terms of the bond, the surety will become liable on the bond obligation when the Owner or Operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the levels of financial responsibility required by §3 of this Part.

8.4. The Owner or Operator who uses a surety bond to satisfy the requirements of §3 of this Part shall also establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Secretary under §18 of this Part. This standby trust fund shall meet the requirements specified in §15 of this Part.

8.5. An Owner or Operator may use a surety bond to establish financial responsibility only if the State's Attorney General has submitted a written statement to the Department that a surety bond executed as described in this Section is a legally valid and enforceable obligation in the State of Delaware.

8.6. The surety(ies) company may cancel the bond by sending notice of cancellation to the Owner and Operator and the Department by Verifiable Service, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Owner and Operator as evidenced by Verifiable Service. The Owner or Operator shall obtain alternative coverage as specified in §17.2 of this Part.

8.7. If the Department notifies the Owner or Operator that the surety(ies) company no longer meets the requirements of this Section, the Owner or Operator shall obtain alternative coverage as specified in §17.2 of this Part.

Section 9. Letter of Credit

9.1. An Owner or Operator may satisfy the requirements of §3 of this Part by obtaining an irrevocable standby letter of credit that conforms to the Requirements of this Section and is issued by an institution that has authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or State agency.

9.2. The letter of credit shall be worded as shown in Appendix F of this Part except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

9.3. An Owner or Operator who uses a letter of credit to satisfy the Requirements of §3 of this Part shall also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department under §18 of this Part. This standby trust fund shall meet the requirements specified in §15 of this Part.

9.4. The letter of credit shall be irrevocable with a term specified by the issuing institution. The letter of credit shall provide that credit be automatically renewed from the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the Owner and Operator by Verifiable Service of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the Owner and Operator receives the notice, as evidenced by the Verifiable Service.

Section 10. Trust Fund

10.1. An Owner or Operator may satisfy the requirements of §3 of this Part by establishing a trust fund that conforms to the Requirements of this Section. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal agency or an agency of the State in which the fund is established.

10.2. The wording of the trust agreement shall be identical to the wording specified in Appendix G of this Part except that instructions in brackets are to be replaced with the relevant information and the brackets deleted, and shall be accompanied by a formal certification of acknowledgment as specified in Appendix G of this Part.

10.3. The trust fund, when established, shall be funded for the full required amount of coverage, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining required coverage.

10.4. If the value of the trust fund is greater than the required amount of coverage, the Owner or Operator may submit a written request by Verifiable Service to the Secretary for release of the excess.

10.5. If other financial assurance as specified in this Section is substituted for part of the trust fund, the Owner or Operator may submit a written request by Verifiable Service to the Secretary for release of the excess.

10.6. Within sixty (60) days after receiving a request from the Owner or Operator for release of funds as specified in §§10.4 or 10.5 above, the Department will instruct the trustee to release to the Owner or Operator such funds as the Department specifies in writing by Verifiable Service.

Section 11. Local Government Bond Rating Test

11.1. A general purpose Local Government Owner or Operator and/or Local Government serving as a Guarantor may satisfy the requirements of §3 of this Part by having a currently outstanding issue or issues of general obligation bonds of at least the minimum Annual Aggregate amount required in §3 of this Part excluding refunded obligations, with a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB. Where a Local Government has multiple outstanding issues, or where a Local Government's bonds are rated by both Moody's and Standard & Poor's, the lowest rating shall be used to determine eligibility. Bonds that are backed by credit enhancement other than municipal bond insurance shall not be considered in determining the amount of applicable bonds outstanding.

11.2. A Local Government Owner or Operator or Local Government serving as a Guarantor that is not a general-purpose Local Government and does not have the legal authority to issue general obligation bonds may satisfy the requirements of §3 of this Part by:

11.2.1 having a currently outstanding issue or issues of revenue bonds of at least the minimum Annual Aggregate amount required in §3 of this Part excluding refunded issues and

11.2.2 having a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB as the lowest rating for any rated revenue bond issued by the Local Government. Where bonds are rated by both Moody's and Standard & Poor's, the lower rating for each bond shall be used to determine eligibility. Bonds that are backed by credit enhancement shall not be considered in determining the amount of applicable bonds outstanding.

11.3. The Local Government Owner or Operator or Guarantor shall maintain a copy of its bond rating published within the last 12 months by Moody's or Standard & Poor's.

11.4. To demonstrate that it meets the Local Government bond rating test, the Chief Financial Officer of a general purpose Local Government Owner or Operator and/or Guarantor shall have a letter signed by the Chief Financial Officer worded as specified in Appendix J of this Part except that instructions in brackets are to be replaced by the relevant information and the brackets deleted.

11.5. To demonstrate that it meets the Local Government bond rating test, the Chief Financial Officer of Local Government Owner, Operator, or Guarantor other than a general purpose government shall have a letter signed by the Chief Financial Officer worded as specified in Appendix K of this Part except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

11.6. The Department may require reports of financial condition at any time from the Local Government Owner, Operator, or Local Government Guarantor. If the Department finds, on the basis of such reports or other information, that the Local Government

Owner, Operator, or Guarantor, no longer meets the Local Government bond rating test Requirements of this Section, the Local Government Owner or Operator shall obtain alternative coverage within 30 days after notification of such a finding.

11.7. If a Local Government Owner or Operator using the bond rating test to provide financial assurance finds that it no longer meets the bond rating test requirements, the Local Government Owner and Operator shall obtain alternative coverage within 150 days of the change in status.

11.8. A Local Government Owner or Operator using the Local Government bond rating test under §11 of this Part shall maintain a copy of its bond rating published within the last twelve months by Moody's or Standard & Poor's.

Section 12. Local Government Financial Test

12.1. A Local Government Owner or Operator may satisfy the requirements of §3 of this Part by passing the financial test specified in this Section. To be eligible to use the financial test, the Local Government Owner or Operator shall have the ability and authority to assess and levy taxes or to freely establish fees and charges. To pass the Local Government financial test, the Owner or Operator shall meet the criteria of §12.3 and §12.4 of this Part based on year-end financial statements for the latest completed Financial Reporting Year.

12.2. The Local Government Owner or Operator shall have the following information available, as shown in the year-end financial statements for the latest completed fiscal year:

12.2.1 Total Revenues: Consists of the sum of general fund operating and non-operating revenues including net local taxes, licenses and permits, fines and forfeitures, revenues from use of money and property, charges for services, investment earnings, sales (property, publications, etc.), intergovernmental revenues (restricted and unrestricted), and total revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity. For purposes of this test, the calculation of total revenues shall exclude all transfers between funds under the direct control of the Local Government using the financial test (interfund transfers), liquidation of investments, and issuance of debt.

12.2.2 Total Expenditures: Consists of the sum of general fund operating and non-operating expenditures including public safety, public utilities, transportation, public works, environmental protection, cultural and recreational, community development, revenue sharing, employee benefits and compensation, office management, planning and zoning, capital projects, interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues. For purposes of this test, the calculation of total expenditures shall exclude all transfers between funds under the direct control of the Local Government using the financial test (interfund transfers).

12.2.3 Local Revenues: Consists of total revenues (as defined in §12.2.1 of this Part) minus the sum of all transfers from other governmental entities, including all monies received from Federal, State, or Local Government sources.

12.2.4 Debt Service: Consists of the sum of all interest and principal payments on all long-term credit obligations and all interest-bearing short-term credit obligations. Includes interest and principal payments on general obligation bonds, revenue bonds, notes, mortgages, judgments, and interest bearing warrants. Excludes payments on non-interest-bearing short-term obligations, interfund obligations, amounts owed in a trust or agency capacity, and advances and contingent loans from other governments.

12.2.5 Total Funds: Consists of the sum of cash and investment securities from all funds, including general, enterprise, debt service, capital projects, and special revenue funds, but excluding employee retirement funds, at the end of the Local Government's Financial Reporting Year. Includes Federal securities, Federal agency securities, State and Local Government securities, and other securities such as bonds, notes and mortgages. For purposes of this test, the calculation of total funds shall exclude agency funds, private trust funds, accounts receivable, value of real property, and other non-security assets.

12.2.6 Population: Consists of the number of people in the area served by the Local Government.

12.3. The Local Government's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion or a disclaimer of opinion. The Local Government cannot have outstanding issues of general obligation or revenue bonds that are rated as less than investment grade.

12.4. The Local Government Owner or Operator shall have a letter signed by the Chief Financial Officer worded as specified in Appendix L of this Part except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

12.5. To demonstrate that it meets the financial test under §12.2 of this Part, the Chief Financial Officer of the Local Government Owner or Operator, shall sign, within 120 days of the close of each Financial Reporting Year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded as specified in Appendix L of this Part except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

12.6. If a Local Government Owner or Operator using the test to provide financial assurance finds that it no longer meets the requirements of the financial test based on the year-end financial statements, the Owner or Operator shall obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

12.7. The Department may require reports of financial condition at any time from the Local Government Owner or Operator. If the Department finds, on the basis of such reports or other information, that the Local Government Owner or Operator no longer meets the financial test requirements of §§12.2 and 12.5 of this Part, the Owner or Operator shall obtain alternate coverage within 30 days after notification of such a finding.

12.8. If the Local Government Owner and Operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the financial test based on the year-end financial statements or within 30 days of notification by the Department that it no longer meets the requirements of the financial test, the Owner and Operator shall notify the Department of such failure within 10 days.

Section 13. Local Government Guarantee

13.1. A Local Government Owner or Operator may satisfy the requirements of §3 of this Part by obtaining a guarantee that conforms to the Requirements of this Section. The Guarantor shall be either the State in which the Local Government Owner or Operator is located or a Local Government having a Substantial Business Relationship with the Owner or Operator and issuing the guarantee as an act incident to that relationship. A Local Government acting as the Guarantor shall:

13.1.1 Demonstrate that it meets the bond rating test requirement of §11 of this Part and deliver a copy of the completed Chief Financial Officer's letter as contained in Appendix J of this Part to the Local Government Owner or Operator; or

13.1.2 Demonstrate that it meets the worksheet test requirements of §12 of this Part and deliver a copy of the completed Chief Financial Officer's letter as contained in Appendix K of this Part to the Local Government Owner and Operator; or

13.1.3 Demonstrate that it meets the Local Government fund requirements of §§14.1.1, 14.1.2 or 14.1.3 of this Part and deliver a copy of the completed Chief Financial Officer's letter as contained in Appendix Q of this Part to the Local Government Owner and Operator.

13.2. If the Local Government Guarantor is unable to demonstrate financial assurance under any of the mechanisms in §11, §12 or §14 of this Part, at the end of the Financial Reporting Year, the Guarantor shall send by Verifiable Service, before cancellation or non-renewal of the guarantee, notice to the Owner and Operator and to the Department. The guarantee will terminate no less than 120 days after the date the Owner and Operator receives the notification, as evidenced by Verifiable Service. The Owner or Operator shall obtain alternative coverage as specified in §17.2 of this Part.

13.3. The guarantee agreement shall be worded as specified in Appendix M, Appendix N, Appendix O or Appendix P of this Part, depending on which of the following alternative guarantee arrangements is selected:

13.3.1 If, in the default or incapacity of the Owner or Operator, the Guarantor guarantees to fund a standby trust as directed by the Secretary, the guarantee shall be worded as specified in Appendix M or Appendix N of this Part.

13.3.2 If, in the default or incapacity of the Owner or Operator, the Guarantor guarantees to make payments as directed by the Secretary for taking corrective action or compensating third parties for Bodily Injury and Property Damage, the guarantee shall be worded as specified in Appendix O or Appendix P of this Part.

13.4. If the Guarantor is a State, the Local Government guarantee with standby trust shall be worded as shown in Appendix M of this Part, except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

13.5. If the Guarantor is a Local Government, the Local Government guarantee with standby trust shall be worded as shown in Appendix N of this Part, except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

13.6. If the Guarantor is a State, the Local Government guarantee without standby trust shall be worded as shown in Appendix O of this Part, except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

13.7. If the Guarantor is a Local Government, the Local Government guarantee without standby trust shall be worded as shown in Appendix P of this Part, except that instructions in brackets are to be replaced with relevant information and the brackets deleted.

13.8. A Local Government Owner or Operator using the Local Government guarantee under §13 of this Part, where the Guarantor's demonstration of financial responsibility relies on the bond rating test under §11 of this Part shall maintain a copy of the Guarantor's bond rating published within the last twelve months by Moody's or Standard & Poor's.

13.9. A Local Government Owner or Operator using the Local Government guarantee supported by the §14, Local Government fund, shall maintain a copy of the Guarantor's year-end financial statements for the most recent completed Financial Reporting Year showing the amount of the fund.

Section 14. Local Government Fund

14.1. A Local Government Owner and Operator may satisfy the requirements of §3 of this Part by establishing a dedicated fund account that conforms to the requirements of this Section. Except as specified in §14.1.2 of this Part, a dedicated fund may not be commingled with other funds or otherwise used in normal operations. A dedicated fund will be considered eligible if it meets one of the following requirements:

14.1.1 The fund is dedicated by State constitutional provision, or Local Government statute, charter, ordinance, or order to pay for taking corrective action and for compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of ASTs and is funded for the full amount of coverage required under §3 of this Part, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage; or

14.1.2 The fund is dedicated by State constitutional provision, or Local Government statute, charter, ordinance, or order as a contingency fund for general emergencies, including taking corrective action and compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of ASTs, and is funded for five times the full amount of coverage required under §3 of this Part, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage. If the fund is funded for less than five times the amount of coverage required under §3 of this Part, the amount of financial responsibility demonstrated by the fund shall not exceed one-fifth the amount in the fund; or

14.1.3 The fund is dedicated by State constitutional provision, or Local Government statute, charter, ordinance or order to pay for taking corrective action and for compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of ASTs. A payment is made to the fund once every year for seven years until the fund is fully-funded. This seven year period is hereafter referred to as the "pay-in-period." The amount of each payment shall be determined by this formula: (TF-CF)/Y Where TF is the total required financial assurance for the Owner or Operator, CF is the current amount in the fund, and Y is the number of years remaining in the pay-in-period, and

14.1.3.1 The Local Government Owner or Operator has available bonding authority, approved through voter referendum (if such approval is necessary prior to the issuance of bonds), for an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund. This bonding authority shall be available for taking corrective action and for compensating third parties for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of ASTs, or

14.1.3.2 The Local Government Owner or Operator has a letter signed by the appropriate State Attorney General stating that the use of the bonding authority will not increase the Local Government's debt beyond the legal debt ceilings established by the relevant State laws. The letter shall also State that prior voter approval is not necessary before use of the bonding authority.

14.2. To demonstrate that it meets the requirements of the Local Government fund, the Chief Financial Officer of the Local Government Owner or Operator and/or Guarantor shall sign a letter worded as specified in Appendix Q of this Part, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted.

14.3. An Owner or Operator using a Local Government fund under §14 of this Part shall maintain the following documents:

14.3.1 A copy of the State constitutional provision or Local Government statute, charter, ordinance, or order dedicating the fund, and

14.3.2 Year-end financial statements for the most recent completed Financial Reporting Year showing the amount in the fund. If the fund is established under §14.1.3 of this Part using incremental funding backed by bonding authority, the financial statements shall show the previous year's balance, the amount of funding during the year, and the closing balance in the fund, and

14.3.3 If the fund is established under §14.1.3 of this Part using incremental funding backed by bonding authority, the Owner or Operator shall also maintain documentation of the required bonding authority, including either the results of voter referendum under §14.1.3.1 of this Part, or attestation by the State Attorney General as specified under §14.1.3.2 of this Part.

Section 15. Standby Trust Fund

15.1. An Owner or Operator using any one of the mechanisms authorized by §§6, 8, 9 and 10 of this Part shall establish a standby trust fund when the mechanism is acquired. The trustee of the standby trust fund shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by an agency of the State in which the fund is established.

15.2. The standby trust agreement shall be worded as shown in Appendix H of this Part except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

15.3. The Secretary will instruct the trustee to refund the balance of the standby trust fund to the Provider of Financial Assurance if the Secretary determines that no additional corrective action costs or third-party liability claims will occur as a result of a Release covered by the financial assurance mechanism for which the standby trust fund was established.

15.4. An Owner or Operator may establish one trust fund as the depository mechanism for all funds assured in compliance with this Part.

Section 16. Substitution of Financial Assurance Mechanisms by Owner or Operator

16.1. An Owner or Operator may substitute any alternate financial assurance mechanisms as specified in this Part, provided that at all times the Owner or Operator maintains an effective financial assurance mechanism or combination of mechanisms that satisfies the Requirements of §3 of this Part.

16.2. After obtaining alternate financial assurance as specified in this Part, an Owner or Operator may cancel a financial assurance mechanism by providing notice as evidenced by Verifiable Service, to the Provider of Financial Assurance and submitting a copy of such notice to the Department.

Section 17. Cancellation or Non-Renewal, Bankruptcy or Other Incapacity of Owner or Operator or Provider of Financial Assurance

17.1. Cancellation or Non-Renewal:

17.1.1 Except as otherwise provided, a Provider of Financial Assurance may cancel or fail to renew an assurance mechanism by sending a notice of Termination by Verifiable Service to the Owner and Operator, subject to the following:

17.1.1.1 Termination of a Local Government guarantee, a guarantee, a surety bond or a letter of credit may not occur until 120 days after the date on which the Owner and Operator receives the notice of Termination, as evidenced by Verifiable Service.

17.1.1.2 Termination of insurance or risk retention group coverage, except for non-payment or misrepresentation by the insured, or State-funded assurance may not occur until sixty (60) days after the date on which the Owner and Operator receives the notice of Termination, as evidenced by Verifiable Service.

17.1.1.3 Termination for non-payment of premium or misrepresentation by the insured may not occur until a minimum of 10 days after the date on which the Owner and Operator receives the notice of Termination, as evidenced by Verifiable Service.

17.1.1.4 The Owner or Operator shall notify the Department within ten (10) days upon receiving notification of cancellation or non-renewal subject to the Requirements of §17.1.

17.1.2 If a provider of financial assurance cancels or fails to renew for reasons other than the incapability of the provider as specified in §17.2 of this Part, the Owner or Operator shall obtain alternate coverage within sixty (60) days after receipt of the notice of Termination. If the Owner and Operator fail to obtain alternate coverage within sixty (60) days after receipt of the notice of Termination, the Owner or Operator shall notify the Department of such failure within ten (10) days and submit the following to the Department:

17.1.2.1 The name and address of the Provider of Financial Assurance; and

17.1.2.2 The effective date of Termination; and

17.1.2.3 The evidence of the financial assurance mechanism subject to the Termination maintained in accordance with §2.3 of this Part.

17.2. Bankruptcy or Other Incapacity of Owner or Operator or Provider of Financial Assurance

17.2.1 Within ten (10) days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming an Owner or Operator as debtor, the Owner or Operator shall notify the Department by Verifiable Service of such commencement and shall submit the appropriate documentation as referenced in §5-15 and Appendices A-Q of this Part demonstrating current compliance with the financial responsibility requirements of this Part.

17.2.2 Within ten (10) days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a Guarantor providing financial assurance as debtor, such Guarantor shall notify the Owner and Operator and the Department by Verifiable Service of such commencement.

17.2.3 Within ten (10) days after the suspension or revocation of the authority of a Provider of Financial Assurance to issue a financial assurance mechanism, such provider shall notify the Owner and Operator by Verifiable Service of such suspension or revocation.

17.2.4 Within ten (10) days after the failure of a Guarantor or indemnitor to meet the requirements of the financial test, such Guarantor or indemnitor shall notify the Owner and Operator and the Department by Verifiable Service of such failure.

17.2.5 Within ten (10) days of receiving notification per §§17.2.2, 17.2.3 or 17.2.4 of this Part, the Owner shall notify the Department by Verifiable Service.

17.2.6 An Owner or Operator who obtains financial assurance by a mechanism other than the financial test of self-insurance will be deemed to be without the required financial assurance in the event of bankruptcy or incapacity of its Provider of Financial Assurance, or a suspension or revocation of the authority of the Provider of Financial Assurance to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, or letter of credit.

17.2.7 Except in the case of financial test of self insurance, the Owner and Operator shall obtain alternate financial assurance within thirty (30) days after receiving notice of a bankruptcy or incapacity of its Provider of Financial Assurance per §17.2 of this Part. If the Owner or Operator does not obtain alternate coverage within thirty (30) days after such notification, the Owner and Operator shall notify the Department within ten (10) days.

17.2.8 An Owner or Operator who has a potential or existing claim filed with a Guarantor, indemnitor or other Provider of Financial Assurance who has filed a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code shall in a timely manner file a Proof of Claim and any necessary supporting documentation with the Court of appropriate jurisdiction and provide a copy of the Proof of Claim to the Department.

Section 18. Drawing on Financial Assurance Mechanisms

18.1. Except as specified in §18.4 of this Part, the Department shall require the Guarantor, surety, or institution issuing a letter of credit, to place the amount of funds stipulated by the Department, up to the limit of funds provided by the financial assurance mechanism, into the standby trust if:

18.1.1 The Owner or Operator fails to establish alternate financial assurance within 60 days after receiving notice of cancellation of the guarantee, surety bond, letter of credit, or, as applicable, other financial assurance mechanisms; and

18.1.2 The Department determines or suspects that a Release from an AST covered by the mechanism has occurred and so notifies the Owner or Operator or the Owner and Operator has notified the Department pursuant to requirements established under Part E of these regulations of a Release from an AST covered by the mechanism; or

18.1.3 The conditions of §18.2.1 or §18.2.2 of this Part are satisfied.

18.2. The Department may draw on a standby trust fund when:

18.2.1 The Department makes a final determination that a Release has occurred and immediate or long term corrective action for the Release is needed, but the Owner or Operator, after appropriate notice and opportunity to comply, has not conducted corrective action as required under Part E of these Regulations; or

18.2.2 The Department has received either:

18.2.2.1 Certification from the Owner or Operator and the third party liability claimant(s) and from attorneys representing the Owner or Operator and the third party liability claimant(s) that a third party liability claim should be paid. The certification shall be worded as shown in Appendix I of this Part except that instructions in brackets are to be replaced with the relevant information and the brackets deleted; or

18.2.2.2 A valid final court order establishing a judgment against the Owner or Operator for Bodily Injury or Property Damage caused by an Accidental Release from an AST covered by financial assurance under this Part and the Department determines that the Owner or Operator has not satisfied the judgment.

18.3. If the Department determines that the amount of corrective action costs and third party liability claims eligible for payment under §18.2 of this Part may exceed the balance of the standby trust fund and the obligation of the Provider of Financial Assurance, the first priority for payment shall be corrective action costs necessary to protect human health and the environment. The Department shall pay third party liability claims in the order in which the Department receives certifications under §18.2 of this Part.

18.4. A governmental entity acting as Guarantor under §13 of this Part, the Local Government guarantee without standby trust, shall make payments as directed by the Secretary under the circumstances described in §§18.1, 18.2 and 18.3 of this Part.

Section 19. Release From the Requirements of Financial Responsibility

19.1. An Owner and Operator is no longer required to maintain financial responsibility under this Part for an AST after the Requirements of Part B, §14 of these Regulations have been met, and, if corrective action is required, after corrective action has been completed as required by Part E of these Regulations.

Section 20. Replenishments of Required Financial Responsibility

20.1. If at any time after a standby trust is funded upon the instruction of the Secretary with funds drawn from a guarantee, Local Government guarantee with standby trust, letter of credit, or surety bond, and the amount in the standby trust is reduced below the full amount of coverage required, the Owner or Operator shall by the anniversary date of the financial mechanism from which the funds were drawn:

20.1.1 Replenish the value of financial assurance to equal the full amount of coverage required, or

20.1.2 Acquire another financial assurance mechanism for the amount by which funds in the standby trust have been reduced.

20.2. For purposes of this Section, the full amount of coverage required is the amount of financial responsibility required by §3 of this Part. If a combination of mechanisms was used to provide the assurance funds which were drawn upon, replenishment shall occur by the earliest anniversary date among the mechanisms.

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APPENDIX A
Financial Test of Self Insurance
Letter from Chief Financial Officer

I am the Chief Financial Officer of [*name and address of the Owner or Operator or Guarantor*]

This letter is in support of the use of [*the financial test of self-insurance" and/or "guarantee"*]

to demonstrate financial responsibility for [*"taking corrective action" and/or "compensating*

third parties for Bodily Injury and Property Damage] caused by [*"sudden Accidental Releases"*

and/or "non-sudden Accidental Releases"] in the amount of at least [*dollar amount*] per

occurrence and [*dollar amount*] Annual Aggregate arising from operating (an) aboveground

storage tank(s)(AST).

ASTs at the following facilities are assured by this financial test by this ["Owner *or Operator" and/or "Guarantor*"].

Attach tank schedule:
List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each tank assured by this financial test by the AST identification number provided in the registration form submitted pursuant to Part A of these Regulations.

AST Facility I.D. Number: _____

Name/Address of AST Facility:

AST ID# (from AST registration form) AST size AST contents

A [*"financial test," and/or "guarantee"*] is also used by [*"Owner" or "Operator" or "Guarantor"*] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or State programs including but not limited to Subtitle C Hazardous Waste Facilities, SDWA Class I Hazardous Waste Injection Wells and aggregate UST coverage.

	Amount
Closure ……	_____
Post-Closure Care …….....	_____
Liability Coverage ……	_____
Corrective Action …….	_____
Plugging and Abandonment ……..	_____
Other ……	_____
TOTAL	_____

This [*"Owner or Operator," or "Guarantor"*] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his financial statements for the latest completed fiscal year.

I hereby certify that the wording of this letter is identical to the wording specified in Part D, §5.1 as such Regulations were constituted on the date shown immediately below.

(Signature)

(Name)

(Title)

(Date)

[Fill in the information for Alternative I if the criteria of Part D, §5.2 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of Part D, §5.3 are being used to demonstrate compliance with the financial test requirements.]

Alternative I

1. Amount of AST Annual Aggregate coverage being assured by a financial test, and/or guarantee:..... $_____

2. Amount of other liability coverage covered by a financial test, and/or guarantee: (This includes but is not limited to Subtitle C Hazardous Waste Facilities, SDWA Class I Hazardous Waste Injection Wells and aggregate UST coverage) $_____

3. Sum of lines 1 and 2: ..... $_____

4. Total tangible assets: ..... $ _____

5. Total liabilities …… $_____
   (if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6)

6. Tangible Net Worth (subtract line 5 from line 4): .....$_____

7. Is line 6 at least $10 million? ..... ☐Yes ☐No*
   (Tangible Net Worth at least $10million)

8. Is line 6 at least 10 times line 3? ..... ☐Yes ☐No*
   (Tangible Net Worth 10X's the sum of other environmental obligations)

***If the answer to line 7 or line 8 is "No", this test cannot be used to meet the AST Financial Responsibility requirements.**

Complete Lines 9-11 OR Line 12

9. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission? ..... ……. ☐Yes ☐No

10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration? ..... ☐Yes ☐No

11. Have financial statements for the latest fiscal year been filed with the Rural Utilities Service? ..... …….. ☐Yes ☐No

12. Has financial information been provided to Dun & Bradstreet, and has Dun & Bradstreet provided a financial strength rating of 4A or 5A? (Answer "Yes" only if both criteria have been met.) ..... ☐Yes ☐No

13. Have year-end financial statements which do not include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification. (Answer "Yes" only if both criteria have been met)….. … ☐Yes ☐No

Alternative II

1. Amount of AST Annual Aggregate coverage being assured by a financial test, and/or guarantee: ..... $_____

2. Amount of other liability coverage covered by a financial test, and/or guarantee: (This includes but is not limited to Subtitle C Hazardous Waste Facilities, SDWA Class I Hazardous Waste Injection Wells and aggregate UST coverage) … $ _____

3. Sum of lines 1 and 2: ..... $ _____

4. Total tangible assets: ..... $ _____

5. Total liabilities (if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6):……..... $ _____

6. Tangible Net Worth (subtract line 5 from line 4): ..... $ _____

7. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.): ..... $ _____

8. Is line 6 at least $10 million? ..... ☐Yes ☐No*
(Tangible Net Worth at least $10 million)

9. Is line 6 at least 6 times line 3? ..... ☐Yes ☐No*
(Tangible Net Worth 6X's other environmental obligations)

***If the answer to line 8 or line 9 is "No", this test cannot be used to meet the AST Financial Responsibility requirements.**

10. Are at least 90 percent of assets located in the U.S.? …… ☐Yes ☐No**
(If "No," complete line 11)

11. Is line 7 at least 6 times line 3?
(U.S. assets at least six times the required amount of AST coverage plus other environmental liabilities) ……. ☐Yes ☐No

(*Complete Lines 12-15 OR Lines 16-18)*

12. Current Assets: ..... $_____

13. Current Liabilities: ..... $_____

14. Net working capital (subtract line 13 from line 12): ..... $_____

15. Is line 14 at least 6 times line 3? ..... …. ☐ Yes ☐ No

-OR-

16. Current bond rating of most recent bond issue: ..... _____

17. Name of rating service: ..... _____

18. Date of maturity of bond: ..... _____

19. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission (SEC), the Energy Information Administration (EIA), or the Rural Utilities Service (RUS)? ..... ☐ Yes ☐ No*

*(If "No," please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4-18 above and the financial statements for the latest fiscal year).

20. The firm's year-end financial statements have been independently audited and do not include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification…… ☐ Yes ☐ No

APPENDIX B
GUARANTEE

Guarantee made this [*Date]* by [*Name of guaranteeing entity*], a business entity organized under the laws of the State of Delaware, herein referred to as Guarantor, to the Department of Natural Resources and Environmental Control (Department) and to any and all third parties, and obligees, on behalf of [*Owner or Operator]* of [*Business Name and Address]*

Recitals

(1) Guarantor meets or exceeds the financial test criteria of §§5.2 or 5.3 and agrees to comply with the requirements for Guarantors as specified in §6.

(2) [*Owner or Operator*] owns or operates the following aboveground storage tanks (ASTs) covered by this guarantee:

Attach AST schedule:
List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each AST assured by this financial test by the AST identification number provided in the registration form submitted pursuant to Part A of these Regulations.

AST Facility I.D. Number: _____

Name/Address of AST Facility:

AST ID# (from AST registration form) AST size AST contents

This guarantee satisfies Part D, §3 for assuring funding for [insert: "*taking corrective action*" and/or "*compensating third parties for Bodily Injury and Property Damage*"] caused by Accidental Releases; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each AST or location arising from operating the above-identified AST(s) in the amount of [*insert dollar amount*] per Occurrence and [*insert dollar amount*] Annual Aggregate.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if Guarantor is corporate parent of the Owner or Operator); "On behalf of our affiliate" (if Guarantor is a related firm of the Owner or Operator); or "Incident to our business relationship with" (if Guarantor is providing the guarantee as an incident to a Substantial Business Relationship with Owner or Operator)] _____ , Guarantor guarantees to the Department and to any and all third parties that:

In the event that [*Owner or Operator*] fails to provide alternate coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Secretary has determined or suspects that a Release has occurred at an AST covered by this guarantee, the Guarantor, upon instructions from the Department, shall fund a standby trust fund in accordance with the provisions of Part D: §15 in an amount not to exceed the coverage limits specified above.

In the event that the DNREC determines that [*Owner or Operator*] has failed to perform corrective action for Release arising out of the operation of the above–identified tank(s) in accordance with Part E, the Guarantor upon written instructions from the DNREC shall fund a standby trust fund in accordance with the provisions of Part D, Section 15 in an amount not to exceed the coverage limits specified above.

If [*Owner or Operator*] fails to satisfy a judgment or award based on a determination of liability for Bodily Injury or Property Damage to third parties caused by Accidental Releases arising from the operation of the above-identified ASTs, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor, upon written instructions from the Department, shall fund a standby trust fund in accordance with the provisions of Part D, §15 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the Guarantor fails to meet the financial test criteria of Part D, §§5.1 and 5.2 or 5.3, Guarantor shall send within 120 days of such failure, by Verifiable Service, notice to [*Owner and Operator*]. The guarantee will terminate 120 days from the date of receipt of the notice by [*Owner and Operator*] as evidenced by Verifiable Service .

(5) Guarantor agrees to notify [*Owner or Operator*] by Verifiable Service of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [*Owner or Operator*] pursuant to these Regulations.

(7) Guarantor agrees to remain bound under this guarantee for so long as [*Owner or Operator*] shall comply with the applicable financial responsibility requirements of these regulations for the above-identified ASTs, except that Guarantor may cancel this guarantee by sending notice by certified mail to[*Owner or Operator*] such cancellation to become effective no earlier than 120 days after receipt of such notice by[*Owner or Operator*] as evidenced by the return receipt.

(8) The Guarantor's obligation does not apply to any of the following:

(a) Any obligation of [*Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*Owner or Operator*] arising from, and in the course of, employment by [*Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care of, custody, or control of, or occupied by [*Owner or Operator*] that is not the direct result of a Release from an AST;

(e) Bodily Injury or Property Damage for which [*Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the Requirements of §3 of this Part.

(9) Guarantor expressly waives notice of acceptance of this guarantee by the Department, by any or all third parties, or by _____.

I hereby certify that the wording of this guarantee is identical to the wording specified in Part D, §6 as such Regulations were constituted on the effective date shown immediately below.

Effective date:

[*Name of Guarantor*]

[*Authorized signature for Guarantor*]

[*Name of Person signing*]

[*Title of Person signing*]

Signature of witness or notary:

APPENDIX C
ENDORSEMENT

Name: _____ [*name of each covered location*]
Address: _____ [*address of each covered location*]
_____
_____

Policy Number:
_____
Period of Coverage: _____ [*current policy period*]

Name of [*Insurer or Risk Retention Group*]:
_____
_____

Address of [*Insurer or Risk Retention Group*]:
_____
_____

Name of Insured:
_____
Address of Insured:
_____
_____

Endorsement:
1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following aboveground storage tanks (ASTs):

Attach AST schedule:
List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each AST assured by this financial test by the AST identification number provided in the registration form submitted pursuant to Part A of these Regulations.

AST Facility I.D. Number: _____

Name/Address of AST Facility:

AST ID# (from AST registration form) AST size AST product

For [insert: "*taking corrective action*" and/or "*compensating third parties for Bodily Injury and Property Damage caused by*" Accidental Releases in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each ASTs or location] arising from operating the AST(s) identified above.

The limits of liability are [*insert the dollar amount of the "each Occurrence" and "Annual Aggregate"* limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different ASTs or locations, indicate the amount of coverage for each type of coverage and/or for each AST or location], exclusive of Legal Defense Costs which are subject to a separate limit under the policy. This coverage is provided under _____. The effective date of said policy is _____.
[*Policy Number*] [*Date*]

2. The insurance afforded with respect to such Occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Section 2 are hereby amended to conform with subsections (a) through (e):

    a. Bankruptcy or insolvency of the insured shall not relieve the ["*Insurer" or "Group*"] of its obligations under the policy to which this endorsement is attached.

    b. The ["*Insurer" or "Group*"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured from any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in Part D, §§5 through 15 of these Regulations.

    c. Whenever requested by the Department, the ["*Insurer" or "Group*"] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

    d. Cancellation or any other Termination of the insurance by the ["*Insurer" or "Group*"], except for non-payment of premium or misrepresentation by the insured, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured shall be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

e. Insert for claims-made policies:
The insurance covers claims otherwise covered by the policy that are reported to the [*"Insurer" or "Group"]* within six months of the effective date of the cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered Occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or Termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.

I hereby certify that the wording of this instrument is identical to the wording in Appendix C and that the [*"Insurer" or "Group"*] is [*"licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more States"*].

[Signature of authorized representative of Insurer or Risk Retention Group]

[Name of Person signing]

[Title of Person signing]

Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

APPENDIX D

CERTIFICATE OF INSURANCE

Name: _____
[*name of each covered location*]

Address: _____
[*address of each covered location*]

_____

_____

Policy Number:
_____

Endorsement (if applicable): _____

Period of Coverage: _____ [*current policy period*]_____

Name of [*Insurer or Risk Retention Group*]: _____

_____

Address of [*Insurer or Risk Retention Group*]:

_____

_____

Name of Insured: _____

Address of Insured: _____

_____

_____

Certification:

1. [*Name of the Insurer or Risk Retention Group*], the "insurer" or "Group," as identified above, hereby certifies that it has issued liability insurance covering the following aboveground storage tanks (ASTs):

Attach AST schedule:

List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each AST assured by this financial test by the AST identification number provided in the registration form submitted pursuant to Part A of these Regulations.

AST Facility I.D. Number: _____

Name/Address of AST Facility:

ASTID# (from AST registration form) AST size AST contents

For [insert: "*taking corrective action*" and/or "*compensating third parties for Bodily Injury and Property Damage*" *caused by Accidental Releases*] in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy (if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location arising from operating the AST(s) identified above).

The limits of liability are [*insert the dollar amount of the "each Ocurrence" and "Annual Aggregate" limits of the Insurer's or Group's liability(if the amount of coverage is different for different types of coverage or for different ASTs or locations, indicate the amount of coverage for each type of coverage and/or for each AST or location)*], exclusive of Legal Defense Costs which are subject to separate limits under the policy. This coverage is provided under [*policy number]*. The effective date of said policy is [*date*].

2. The "Insurer" or "Group" further certifies the following with respect to the insurance described in Paragraph 1:

    a. Bankruptcy or insolvency of the insured shall not relieve the "Insurer" or "Group" of its obligations under the policy to which this certificate applies.

    b. The "Insurer" or "Group" is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the "Insurer" or "Group." This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in §§5 through 15 of this Part.

c. Whenever requested by the Department, the [*"Insurer" or "Group"*] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other Termination of the insurance by the [*"Insurer" or "Group*"], except for non-payment of premium or misrepresentation by the insured shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured.
Cancellation for non-payment of premium or misrepresentation by the insured shall be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

e. Insert for claims-made policies:
The insurance covers claims otherwise covered by the policy that are reported to the [*"Insurer" or "Group"*] within six months of the effective date of the cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered Occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or Termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.

I hereby certify that the wording of this instrument is identical to the wording in Appendix D and that the [*"Insurer" or "Group"*] is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States."

[Signature of authorized representative of Insurer or Risk Retention Group]

[Name of Person signing]

[Title of Person signing]

[Authorized Representative of Insurer or Risk Retention Group]

[Address of Representative]

APPENDIX E

PERFORMANCE BOND

Date bond executed: _____
Period of Coverage: _____
Principal: [*legal name and business address of Owner or Operator*] _____
_____

Type of organization: [*insert "individual," "joint venture," "partnership," or "corporation"*]
_____

State of incorporation (if applicable): _____

Surety(ies): _____ [*name(s) and business address(es)*]
_____
_____

Scope of Coverage:

Attach AST schedule:
List for each Facility: the name and address of the Facility where aboveground storage tanks (ASTs) assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each AST assured by this financial test by the AST identification number provided in the registration form submitted pursuant to Part A of these Regulations.

AST Facility I.D. Number: _____

Name/Address of AST Facility:

AST ID# (from AST registration form) AST size AST contents

List the coverage guaranteed by the bond: [*"taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"]* caused by Accidental Releases arising from operating the AST.

Penal sums of bond: Per Occurrence $ _____
Annual Aggregate $ _____

Surety's bond number: _____

Know all Persons by these presents, that we, the Principal and Surety(ies), hereto are firmly bound to the Department, in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under 7 Del. C. Chapter 74A, as amended, to provide financial assurance for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"*] caused by Accidental Releases; (if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location) arising from operating the ASTs identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully ["take corrective action, in accordance with Part E of these regulations and the Department's instructions for, compensate injured third parties for Bodily Injury and Property Damage caused by Accidental Releases arising from operating the tank(s) identified above,] or if the Principal shall provide alternate financial assurance, as specified in Part D of these regulations, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [*Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*Owner or Operator*] arising from, and in the course of, employment by [insert Owner or Operator];

(c) Bodily Injury or Property Damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [*Owner or Operator*] that is not the direct result of a release from an AST;

(e) Bodily Injury or Property Damage for which [*insert Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the Requirements of Part D §3 of these Regulations.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by the Department that the Principal has failed to [*"take corrective action, in accordance with Part E of these Regulations and the Department's instructions," and/or "compensate injured third parties"*] as guaranteed by this bond, the Surety(ies) shall either perform ["corrective action in accordance with Part E of these Regulations and the Department's instructions," and/or "third-party liability compensation"] or place funds in an amount up to the Annual Aggregate penal sum into the standby trust fund as directed by the Department under Part D, §15 of these Regulations.

Upon notification by the Department that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that the Department has determined or suspects that a Release has occurred, the Surety(ies) shall place funds in an amount not exceeding the Annual Aggregate penal sum into the standby trust fund as directed by the Department under Part D, Section 15 of these regulations.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged, by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the Annual Aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said Annual Aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In witness thereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The Persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in this Appendix as such Regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]
[Name(s)]
[Title(s)]

[Corporate seal]
CORPORATE SURETY(IES)

[*Name and address*] _____
_____

State of Incorporation: _____

Liability limit: $ _____

[Signature(s)] 1. _____ 2. _____

[Name(s) and title(s)] 1. _____

2. _____

[Corporate seal]

[*For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above*.]

Bond Premium: $_____

APPENDIX F

IRREVOCABLE STANDBY LETTER OF CREDIT

_____
_____
_____
_____

[*Name and address of issuing institution*]

Delaware Department of Natural Resources and Environmental Control

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [*Owner or Operator name*] of [*address*] up to the aggregate amount of [*in words*] U.S. dollars ($ [*insert dollar amount*]), available upon presentation [*insert, if more than one Director of a State implementing agency is a beneficiary, "by any one of you"*] of

(1) your sight draft, bearing reference to this letter of credit, No. _____, and
(2) your signed statement reading as follows:

"I certify that the amount of the draft is payable pursuant to Regulations issued under the authority of 7 Del. C., Chapter 74A."

This letter of credit may be drawn on to cover [insert: "*taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage" caused by Accidental Releases*] arising from operating the aboveground storage tanks (ASTs) identified below in the amount of [*in words*] $[*insert dollar amount*] per Occurrence and [*in words*] $[*insert dollar amount*] Annual Aggregate:

[*Attach tank schedule*:
List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located, and whether ASTs are assured by this financial test. If separate mechanisms or combinations of mechanisms are being used to assure any of the ASTs at this Facility, list each AST assured by this financial test by the AST identification number provided in the notification submitted pursuant to Part A of these Regulations.]

AST Facility I.D. Number: _____
Name/Address of AST Facility:
AST ID# (from AST registration form) AST size AST contents

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [*Owner or Operator*]under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*insert Owner or Operator*]arising from, and in the course of, employment by [*insert Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [*insert Owner or Operator*] that is not the direct result of a Release from a AST;

(e) Bodily Injury or Property Damage for [*Owner or Operator*] which is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part D, Section 3 of these regulations.

This letter of credit is effective as of [*date*] and shall expire on [*date*]but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [*Owner or Operator*] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [*Owner or Operator*] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [*Owner or Operator*] as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [*Owner or Operator*] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in this Appendix F as such Regulations were constituted on the date shown immediately below.

[*Signature(s) and title(s) of official(s) of issuing institution*]

Name and Title:
Name and Title:
This credit is subject to [*insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"*].

APPENDIX G

TRUST AGREEMENT

Trust agreement, the "Agreement," entered into as of [*date*] by and between [*Owner or Operator*] a [*Name of State*] [*"corporation", "partnership," "association," or "proprietorship"*], the "Grantor," and [Name of Corporate Trustee] [*insert "Incorporated in the State of _____" or "a national bank"*], the "Trustee."

Whereas, the Department of Natural Resources and Environmental Control (Department), an agency of the State of Delaware, has established certain regulations applicable to the Grantor, requiring that an Owner or Operator of an aboveground storage tank (AST) shall provide assurance that funds will be available when needed for corrective action and third-party compensation for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of the AST. The attached Schedule A lists the number of ASTs at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located that are covered by the standby trust agreement.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee; Now, therefore, the Grantor and the Trustee agree as follows:

SECTION 1. DEFINITIONS

As used in this Agreement:

(a) The term "Grantor" means the Owner or Operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

SECTION 2. IDENTIFICATION OF THE FINANCIAL ASSURANCE MECHANISM
This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement.)].

SECTION 3. ESTABLISHMENT OF THE FUND
The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of [the Department]. The Grantor and the Trustee intend that no third party have access to the fund except as herein provided. [The Fund is established initially as a standby to receive payments and shall not consist of any property.] Payments made by the Provider of Financial Assurance

pursuant to the Secretary's instruction are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor as Provider of Financial Assurance, any payments necessary to discharge any liability of the Grantor established by the Department.

SECTION 4. PAYMENT FOR *CORRECTIVE ACTION* AND/OR *THIRD–PARTY LIABILITY CLAIMS*
The Trustee shall make payments from the Fund as the Secretary shall direct, in writing, to provide for the payment of the costs of [insert: "taking corrective action" and/or "compensating third parties for bodily injury and Property Damage" caused by Accidental Releases] arising from operating the ASTs covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [*insert Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to any employee of [*insert Owner or Operator*] arising from, and in the course of employment by [*insert Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [*insert Owner or Operator*] that is not the direct result of a Release from a AST;

(e) Bodily Injury or Property Damage for which [*insert Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part D, §3 of these Regulations. The Trustee shall reimburse the Grantor, or other Persons as specified by the Department, from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as the Secretary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

SECTION 5. PAYMENTS COMPRISING THE FUND
Payments made to the Trustee for the Fund shall consist of cash and securities acceptable to the Trustee.

SECTION 6. TRUSTEE MANAGEMENT

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which Persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

A. Securities or other obligations of the Grantor, or any other Owner or Operator of the ASTs, or any of their affiliates as defined in the *Investment Company Act of 1940*, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a State government;

B. The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or State government; and

C. The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

SECTION 7. COMMINGLING AND INVESTMENT

The Trustee is expressly authorized in its discretion:

A. To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

B. To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

SECTION 8. EXPRESS POWERS OF TRUSTEE

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

A. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No Person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

B. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

C. To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another Person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

D. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or State government; and

E. To compromise or otherwise adjust all claims in favor of or against the Fund.

SECTION 9. TAXES AND EXPENSES

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

SECTION 10. ADVICE OF COUNSEL

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

SECTION 11. TRUSTEE COMPENSATION

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

SECTION 12. SUCCESSOR TRUSTEE

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this

successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by Verified Service 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in §8.

SECTION 13. INSTRUCTIONS TO THE TRUSTEE

All orders, requests, and instructions by the Grantor to the trustee shall be in writing, signed by such Persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Secretary to the Trustee shall be in writing, signed by the Secretary, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a Termination of the authority of any Person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

SECTION 14. AMENDMENT OF AGREEMENT

This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee, or by the Trustee and the Department if the Grantor ceases to exist.

SECTION 15. IRREVOCABILITY AND TERMINATION

Subject to the right of the parties to amend this Agreement as provided in §14 of this Appendix above, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and the Department, if the Grantor ceases to exist. Upon Termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

SECTION 16. IMMUNITY AND INDEMNIFICATION

The Trustee shall not incur Personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any Personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

SECTION 17. CHOICE OF LAW
This Agreement shall be administered, construed, and enforced according to the laws of the State of Delaware, or the Comptroller of the Currency in the case of National Association Banks.

SECTION 18. INTERPRETATION
As used in this Agreement, words in singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In witness thereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Appendix G of Part D as such Regulations were constituted on the date written above.

[*Signature of Grantor*]
_____
[*Name of the Grantor*]
_____
[*Title*]
_____
Attest:
_____
[*Signature of Trustee*]
_____
[*Name of Trustee*]
_____
[*Title*]
_____

[*Seal*]

Attest:_____
_
[*Signature of Witness*]
_____
[*Name of Witness*]
_____
[*Title*]
_____
[*Seal*]

The trust agreement shall be accompanied by a formal certification of acknowledgment similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of _____
County of _____

On this _____, before me Personally came _____ to me known, who,
[*Date*] [*Owner or Operator*]
being by me duly sworn, did depose and say that he/she resides at _____,
and that she/he is [*Title*] of [*Corporation*] the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed his/her name thereto by like order.

[*Signature of Notary Public*] _____

[*Name of Notary Public*] _____

APPENDIX H

STANDBY TRUST AGREEMENT

Standby Trust agreement, the "Agreement," entered into as of [*date*] by and between [*Owner or Operator*]a [*Name of State*] [*"corporation", "partnership," "association," or "proprietorship"*], the "Grantor," and [*Name of Corporate Trustee*] [*insert "Incorporated in the State of _____" or "a national bank"*], the "Trustee."

Whereas, the Department of Natural Resources and Environmental Control (Department), an agency of the State of Delaware, has established certain regulations applicable to the Grantor, requiring that an Owner or Operator of an aboveground storage tank (AST) shall provide assurance that funds will be available when needed for corrective action and third-party compensation for Bodily Injury and Property Damage caused by Accidental Releases arising from the operation of the AST. The attached Schedule lists the number of ASTs at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located that are covered by the standby trust agreement.

Whereas, the Grantor has elected to establish [*insert either "a guarantee," "surety bond," or "letter of credit"*] to provide all or part of such financial assurance for the ASTs identified herein and is required to establish a standby trust fund able to accept payments from the instrument;

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee; Now, therefore, the Grantor and the Trustee agree as follows:

SECTION 1. DEFINITIONS

As used in this Agreement:

(a) The term "Grantor" means the Owner or Operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

SECTION 2. IDENTIFICATION OF THE FINANCIAL ASSURANCE MECHANISM

This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement.)].

SECTION 3. ESTABLISHMENT OF THE FUND

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Department. The Grantor and the Trustee intend that no third party have access to the fund except as herein provided. [The Fund is established initially as a standby to receive payments and shall not consist of any property.] Payments made by the Provider of Financial Assurance pursuant to the Department instruction are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor as Provider of Financial Assurance, any payments necessary to discharge any liability of the Grantor established by the Department.

SECTION 4. PAYMENT FOR *CORRECTIVE ACTION* AND/OR *THIRD–PARTY LIABILITY CLAIMS*

The Trustee shall make payments from the Fund as the Secretary shall direct, in writing, to provide for the payment of the costs of [*insert: "taking corrective action" and/or "compensating third parties for bodily injury and Property Damage" caused by Accidental Releases*] arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [*insert Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to any employee of [*insert Owner or Operator*] arising from, and in the course of employment by [*insert Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [*insert Owner or Operator*] that is not the direct result of a Release from a AST;

(e) Bodily Injury or Property Damage for which [*insert Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part D, §3 of these Regulations. The Trustee shall reimburse the Grantor, or other Persons as specified by the Department, from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as the Secretary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

SECTION 5. PAYMENTS COMPRISING THE FUND

Payments made to the Trustee for the Fund shall consist of cash and securities acceptable to the Trustee.

SECTION 6. TRUSTEE MANAGEMENT

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which Persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

A. Securities or other obligations of the Grantor, or any other Owner or Operator of the tanks, or any of their affiliates as defined in the *Investment Company Act of 1940*, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a State government;

B. The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or State government; and

C. The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

SECTION 7. COMMINGLING AND INVESTMENT

The Trustee is expressly authorized in its discretion:

A. To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

B. To purchase shares in any investment company registered under the *Investment Company Act of 1940*, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

SECTION 8. EXPRESS POWERS OF TRUSTEE

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

A. To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No Person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

B. To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

C. To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another Person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

D. To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or State government; and

E. To compromise or otherwise adjust all claims in favor of or against the Fund.

SECTION 9. TAXES AND EXPENSES

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

SECTION 10. ADVICE OF COUNSEL

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

SECTION 11. TRUSTEE COMPENSATION
The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

SECTION 12. SUCCESSOR TRUSTEE
The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by Verified Service 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 8.

SECTION 13. INSTRUCTIONS TO THE TRUSTEE
All orders, requests, and instructions by the Grantor to the trustee shall be in writing, signed by such Persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Secretary to the Trustee shall be in writing, signed by the Secretary, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a Termination of the authority of any Person to act on behalf of the Grantor or the Department hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Department, except as provided for herein.

SECTION 14. AMENDMENT OF AGREEMENT
This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee, or by the Trustee and the Department if the Grantor ceases to exist.

SECTION 15. IRREVOCABILITY AND TERMINATION
Subject to the right of the parties to amend this Agreement as provided in Section 14 of this Appendix above, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and the Department, if the Grantor ceases to exist. Upon Termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

SECTION 16. IMMUNITY AND INDEMNIFICATION

The Trustee shall not incur Personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any Personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

SECTION 17. CHOICE OF LAW

This Agreement shall be administered, construed, and enforced according to the laws of the State of Delaware, or the Comptroller of the Currency in the case of National Association Banks.

SECTION 18. INTERPRETATION

As used in this Agreement, words in singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In witness thereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Appendix H of Part D as such Regulations were constituted on the date written above.

[*Signature of Grantor*]

_____

[*Name of the Grantor*]

_____

[*Title*]

_____

Attest:

_____

[*Signature of Trustee*]

_____

[*Name of Trustee*]

_____

[*Title*]

_____

[*Seal*]

Attest:_____

[*Signature of Witness*]

_____

[*Name of Witness*]

_____

[*Title*]

_____

[*Seal*]

The standby trust agreement shall be accompanied by a formal certification of acknowledgment similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of _____, County of _____,

On this [*Date*], before me Personally came [*Owner or Operator*]to me known, who,

being by me duly sworn, did depose and say that he/she resides at [*address*], that she/he is [*Title*] of [*Corporation*]the corporation described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed his/her name thereto by like order.

[*Signature of Notary Public*] _____

[*Name of Notary Public*] _____

APPENDIX I

CERTIFICATION OF VALID CLAIM

The undersigned, as principals and as legal representatives of [*Owner or Operator]* and [*insert name and address of third-party claimant*] hereby certify that the claim of Bodily Injury [and/or] Property Damage caused by an Accidental Release arising from operating [*Owner or Operator*] aboveground storage tank should be paid in the amount of $[_____].

[Signature(s)]	[*Signature(s)*]
Owner or Operator	Claimant(s)
Attorney for Owner or Operator	Attorney(s) for Claimant(s)
(Notary)_____ Date _____	(Notary)_____ Date _____

APPENDIX J

BOND RATING TEST
GENERAL PURPOSE LOCAL GOVERNMENT

Letter from Chief Financial Officer

I am the Chief Financial Officer of [*insert: name and address of Local Government Owner or Operator, or Guarantor*]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"*] caused by [*insert : "sudden Accidental Releases" and/or "nonsudden Accidental Releases"*] in the amount of at least [*insert: dollar amount*] per Occurrence and [*insert: dollar amount*] Annual Aggregate arising from operating (an) aboveground storage tank(s) (ASTs).

ASTs at the following facilities are assured by this bond rating test: [List for each Facility: the name and address of the Facility where ASTs are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of Local Government Owner or Operator, or Guarantor] to demonstrate financial responsibility are as follows: [complete table]

Issue Date	Maturity Date	Outstanding Amount	Bond Rating	Rating Agency [Moody's or Standard & Poor's]

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in Part D, Appendix J as such regulations were constituted on the date shown immediately below.

[*Signature*]

[*Name*]

[Title]

[*Date*]

APPENDIX K

BOND RATING TEST/LOCAL GOVERNMENT OTHER

Letter from Chief Financial Officer

I am the Chief Financial Officer of [*insert: name and address of Local Government Owner or Operator, or Guarantor*]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"*] caused by [*insert : "sudden Accidental Releases" and/or "nonsudden Accidental Releases"*] in the amount of at least [*insert: dollar amount*] per Occurrence and [*insert: dollar am*ount] Annual Aggregate arising from operating (an) aboveground storage tank(s) (ASTs). This Local Government is not organized to provide general governmental services and does not have the legal authority under state law or constitutional provisions to issue general obligation debt.

ASTs at the following facilities are assured by this bond rating test: [*List for each Facility: the name and address of the Facility where ASTs are assured by the bond rating test*].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding revenue bond issues that are being used by [*name of Local Government Owner or Operator, or Guarantor*] to demonstrate financial responsibility are as follows: [*complete table*]

Issue Date	Maturity Date	Outstanding Amount	Bond Rating	Rating Agency [Moody's or Standard & Poor's]

The total outstanding obligation of [*insert amount*], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding revenue bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (*Moody's Baa or Standard & Poor's BBB*) based on the most recent ratings published within the last 12 months. The revenue bonds listed are not backed by third-party credit enhancement or are insured by a municipal bond insurance company. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in Part D, Appendix K as such regulations were constituted on the date shown immediately below.

[*Signature*]
[*Name*]
[*Title*]
[*Date*]

APPENDIX L
LOCAL GOVERNMENT FINANCIAL TEST
Letter from Chief Financial Officer

I am the Chief Financial Officer of [*insert: name and address of the Owner or Operator*]. This letter is in support of the use of the Local Government financial test to demonstrate financial responsibility for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"*] caused by [*insert: "sudden Accidental Releases" and/or "nonsudden Accidental Releases"*] in the amount of at least [*insert: dollar amount*] per Occurrence and [*insert: dollar amount*] Annual Aggregate arising from operating [an] aboveground storage tank(s) (ASTs)].

ASTs at the following facilities are assured by this financial test [*List for each Facility: the name and address of the Facility where ASTs assured by this financial test are located. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this Facility, list each AST assured by this financial test by the AST identification number provided in the notification submitted pursuant to Part A of these Regulations*].

This Owner or Operator has not received an adverse opinion, or a disclaimer of opinion from an independent auditor on its financial statements for the latest completed fiscal year. Any outstanding issues of general obligation or revenue bonds, if rated, have a Moody's rating of Aaa, Aa, A, or Baa or a Standard & Poor's rating of AAA, AA, A, or BBB; if rated by both firms, the bonds have a Moody's rating of Aaa, Aa, A, or Baa and a Standard & Poor's rating of AAA, AA, A, or BBB.

WORKSHEET FOR MUNICIPAL FINANCIAL TEST

PART I: BASIC INFORMATION

1. Total Revenues
   a. Revenues (dollars)
      Value of revenues excludes liquidation of investments and issuance of debt. Value includes all general fund operating and non-operating revenues, as well as all revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity.
   b. Subtract interfund transfers (dollars)
   c. Total Revenues (dollars)

2. Total Expenditures
   a. Expenditures (dollars)
      Value consists of the sum of general fund operating and non-operating expenditures including interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues.
   b. Subtract interfund transfers (dollars)
   c. Total Expenditures (dollars)

3. Local Revenues
   a. Total Revenues (from 1c) (dollars)
   b. Subtract total intergovernmental transfers (dollars)
   c. Local Revenues (dollars)

4. Debt Service
   a. Interest and fiscal charges (dollars)
   b. Add debt retirement (dollars)
   c. Total Debt Service (dollars)

5. Total Funds (dollars)
   (Sum of amounts held as cash and investment securities from all funds, excluding amounts held for employee retirement funds, agency funds, and trust funds)

6. Population (Persons)

PART II: APPLICATION OF TEST

7. Total Revenues to Population
   a. Total Revenues (from 1c)
   b. Population (from 6)
   c. Divide 7a by 7b
   d. Subtract 417
   e. Divide by 5,212
   f. Multiply by 4.095

8. Total Expenses to Population
   a. Total Expenses (from 2c)
   b. Population (from 6)
   c. Divide 8a by 8b
   d. Subtract 524
   e. Divide by 5,401
   f. Multiply by 4.095

9. Local Revenues to Total Revenues
   a. Local Revenues (from 3c)
   b. Total Revenues (from 1c)
   c. Divide 9a by 9b
   d. Subtract .695
   e. Divide by .205
   f. Multiply by 2.840

10. Debt Service to Population
   a. Debt Service (from 4d)
   b. Population (from 6)
   c. Divide 10a by 10b
   d. Subtract 51
   e. Divide by 1,038
   f. Multiply by -1.866

11. Debt Service to Total Revenues
   a. Debt Service (from 4d)
   b. Total Revenues (from 1c)
   c. Divide 11a by 11b
   d. Subtract .068
   e. Divide by .259
   f. Multiply by -3.533

12. Total Revenues to Total Expenses
   a. Total Revenues (from 1c)
   b. Total Expenses (from 2c)
   c. Divide 12a by 12b
   d. Subtract .910
   e. Divide by .899
   f. Multiply by 3.458

13. Funds Balance to Total Revenues
   a. Total Funds (from 5)
   b. Total Revenues (from 1c)
   c. Divide 13a by 13b
   d. Subtract .891
   e. Divide by 9.156
   f. Multiply by 3.270

14. Funds Balance to Total Expenses
   a. Total Funds (from 5)
   b. Total Expenses (from 2c)
   c. Divide 14a by 14b
   d. Subtract .866
   e. Divide by 6.409
   f. Multiply by 3.270

15. Total Funds to Population
   a. Total Funds (from 5)
   b. Population (from 6)
   c. Divide 15a by 15b
   d. Subtract 270
   e. Divide by 4,548
   f. Multiply by 1.866

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937

I hereby certify that the financial index shown on line 16 of the worksheet is greater than zero and that the wording of this letter is identical to the wording specified in Part D, Appendix L as such regulations were constituted on the date shown immediately below.

[*Signature*]

[*Name*]

[*Title*]

[*Date*]

APPENDIX M

LOCAL GOVERNMENT GUARANTEE WITH STANDBY TRUST MADE BY A STATE

Guarantee made this [date] by [name of State], herein referred to as Guarantor, to [Department of Natural Resources and Environmental Control] and to any and all third parties, and obliges, on behalf of [Local Government Owner or Operator].

Recitals

(1) Guarantor is a State.

(2) [*Local Government Owner or Operator*] owns or operates the following aboveground storage tanks (ASTs) covered by this guarantee: [*List the number of tanks at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located. If more than one instrument is used to assure different ASTs at any one Facility, for each ASTs covered by this instrument, list the AST identification number provided in the notification submitted pursuant to Part A of Delaware's Regulations Governing Aboveground Storage Tank Systems, and the name and address of the Facility.*] This guarantee satisfies Part D, requirements for assuring funding for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage caused by" either "sudden Accidental Releases" or "nonsudden Accidental Releases" or "Accidental Releases"; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each AST or location*] arising from operating the above-identified AST(s) in the amount of *[insert dollar amount*] per Occurrence and [*insert dollar amount*] Annual Aggregate.

(3) Guarantor guarantees to the Department and to any and all third parties that:

In the event that [*Local Government Owner or Operator*] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a Release has occurred at an AST covered by this guarantee, the Guarantor, upon instructions from the Department shall fund a standby trust fund in accordance with the provisions of Part D, §15 in an amount not to exceed the coverage limits specified above.

In the event that the Department determines that [Local Government Owner or Operator] has failed to perform corrective action for Releases arising out of the operation of the above-identified tank(s) in accordance with Part E the Guarantor upon written instructions from the Department shall fund a standby trust fund in accordance with the provisions of Part D, §15 in an amount not to exceed the coverage limits specified above.

If [*Owner or Operator*] fails to satisfy a judgment or award based on a determination of liability for Bodily Injury or Property Damage to third parties caused by *["sudden" and/or "nonsudden"*] Accidental Releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor, upon written instructions from the Department, shall fund a standby trust in accordance with the provisions of Part D Section 20 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees to notify [*Owner or Operator*] by certified mail of a voluntary or involuntary proceeding under Title 11 {Bankruptcy}, U.S. Code naming Guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [*Owner or Operator*] pursuant to the Delaware *Regulations Governing Aboveground Storage Tank Systems*.

(6) Guarantor agrees to remain bound under this guarantee for so long as [*Local Government Owner or Operator*] shall comply with the applicable financial responsibility requirements of Part D for the above identified tank(s), except that Guarantor may cancel this guarantee by sending notice by certified mail to [Owner or Operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [Owner or Operator], as evidenced by the return receipt.

(7) The Guarantor's obligation does not apply to any of the following:

(a) Any obligation of [*Local Government Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*insert: Local Government Owner or Operator*] arising from, and in the course of, employment by [*insert: Local Government Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [*insert: Local Government Owner or Operator*] that is not the direct result of a Release from a AST;

(e) Bodily Injury or Property Damage for which [*insert Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part D, §3 .

(8) Guarantor expressly waives notice of acceptance of this guarantee by the Department, by any or all third parties, or by [*Local Government Owner or Operator*],

I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix M as such Regulations were constituted on the effective date shown immediately below.

Effective date:
[*Name of Guarantor*]

[*Authorized signature for Guarantor*]

[*Name of Person signing*]

[*Title of Person signing*]

Signature of witness or notary:

APPENDIX N

LOCAL GOVERNMENT GUARANTEE WITH STANDBY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [*date*] by [*name of guaranteeing entity*], a Local Government organized under the laws of [*name of State*], herein referred to as Guarantor, to DNREC and to any and all third parties, and obliges, on behalf of [*Local Government Owner or Operator*].

Recitals

(1) Guarantor meets or exceeds [*select one: the Local Government bond rating test requirements of Part D, §11, the Local Government financial test requirements of Part D, §12, or the Local Government fund under Part D, §14*].

(2) [*Local Government Owner or Operator*] owns or operates the following aboveground storage tank(s) (ASTs) covered by this guarantee: [List the number of ASTs at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located. If more than one instrument is used to assure different ASTs at any one Facility, for each AST covered by this instrument, list the AST identification number provided in the notification submitted pursuant to Part A of the Delaware *Regulations Governing Aboveground Storage Tank Systems*, and the name and address of the Facility. This guarantee satisfies Part D requirements for assuring funding for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage caused by" either "sudden Accidental Releases" or "nonsudden Accidental Releases" or "Accidental Releases"; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each AST or location*] arising from operating the above-identified AST(s) in the amount of [*insert dollar amount*] per Occurrence and [*insert: dollar amount*] Annual Aggregate.

(3) Incident to our Substantial Business Relationship with [*Local Government Owner or Operator*], Guarantor guarantees to Department and to any and all third parties that:

In the event that [*Local Government Owner or Operator*] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a Release has occurred at an AST covered by this guarantee, the Guarantor, upon instructions from the Department shall fund a standby trust fund in accordance with the provisions of Part D, §15 , in an amount not to exceed the coverage limits specified above.

In the event that the Department determines that [*Local Government Owner or Operator*] has failed to perform corrective action for Releases arising out of the operation of the above-identified AST(s) in accordance with Part E of these Regulations, the Guarantor upon written instructions from the Department shall fund a standby trust fund in accordance with the provisions of Part D, §15 in an amount not to exceed the coverage limits specified above.

If [*Owner or Operator*] fails to satisfy a judgment or award based on a determination of liability for Bodily Injury or Property Damage to third parties caused by *["sudden" and/or "nonsudden"*] Accidental Releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor, upon written instructions from the Department, shall fund a standby trust in accordance with the provisions of Part D, §15 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that, if at the end of any fiscal year before cancellation of this guarantee, the Guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), Guarantor shall send within 120 days of such failure, by certified mail, notice to [Local Government Owner or Operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [*Owner or Operator*] by certified mail of a voluntary or involuntary proceeding under Title 11 {Bankruptcy}, U.S. Code naming Guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [Owner or Operator] pursuant to the Regulations.

(7) Guarantor agrees to remain bound under this guarantee for so long as [*Local Government Owner or Operator*] shall comply with the applicable financial responsibility requirements of Part D for the above identified tank(s), except that Guarantor may cancel this guarantee by sending notice by certified mail to [*Owner or Operator*], such cancellation to become effective no earlier than 120 days after receipt of such notice by [*Owner or Operator*], as evidenced by the return receipt.

(8) The Guarantor's obligation does not apply to any of the following:

(a) Any obligation of [*Local Government Owner or Operator*] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;
(b) Bodily Injury to an employee of *[insert: Local Government Owner or Operator*] arising from, and in the course of, employment by [*insert: Local Government Owner or Operator*];
(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
(d) Property Damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [*insert: Local Government Owner or Operator*] that is not the direct result of a Release from a AST;

(e) Bodily Injury or Property Damage for which [*insert: Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part D, § 3 .

(9) Guarantor expressly waives notice of acceptance of this guarantee by the Department, by any or all third parties, or by [*Local Government Owner or Operator*].

I hereby certify that the wording of this guarantee is identical to the wording specified in Part D, Appendix N as such regulations were constituted on the effective date shown immediately below.

Effective date:

[*Name of Guarantor*]

[*Authorized signature for Guarantor*]

[*Name of Person signing*]

[*Title of Person signing*]

Signature of witness or notary:

APPENDIX O

LOCAL GOVERNMENT GUARANTEE WITHOUT STANDBY TRUST MADE BY A STATE

Guarantee made this [*date*] by [*name of State*], herein referred to as Guarantor, to DNREC and to any and all third parties, and obliges, on behalf of [*Local Government Owner or Operator*].

Recitals

(1) Guarantor is a State.

(2) [*Local Government Owner or Operator*] owns or operates the following aboveground storage tank(s) (ASTs) covered by this guarantee: [*List the number of tanks at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located. If more than one instrument is used to assure different ASTs at any one Facility, for each AST covered by this instrument, list the AST identification number provided in the notification submitted pursuant to Part A or the corresponding State requirement, and the name and address of the Facility*.] This guarantee satisfies Part D requirements for assuring funding for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage caused by" either "sudden Accidental Releases" or "nonsudden Accidental Releases" or "Accidental Releases"; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each AST or location*] arising from operating the above-identified AST(s) in the amount of [*insert: dollar amount*] per Occurrence and [*insert: dollar amount*] Annual Aggregate.

(3) Guarantor guarantees to the Department and to any and all third parties and obliges that:

In the event that [*Local Government Owner or Operator*] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the DNREC has determined or suspects that a Release has occurred at an AST covered by this guarantee, the Guarantor, upon written instructions from the Department shall make funds available to pay for corrective actions and compensate third parties for Bodily Injury and Property Damage in an amount not to exceed the coverage limits specified above.

In the event that the Department determines that [*Local Government Owner or Operator*] has failed to perform corrective action for Releases arising out of the operation of the above-identified tank(s) in accordance with Part B §3, the Guarantor upon written instructions from the Department shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

In the event that the Department determines that [*Local Government Owner or Operator*] has failed to perform corrective action for Releases arising out of the operation of the above-identified ASTs in accordance with Part E of Delaware's *Regulations Governing Aboveground Storage Tanks*, the Guarantor upon written instructions from the Department shall make funds available to pay for corrective actions in an amount not to exceed coverage limits specified above.

If [*Owner or Operator*] fails to satisfy a judgment or award based on a determination of liability for Bodily Injury or Property Damage to third parties caused by *["sudden" and/or "nonsudden"*] Accidental Releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor, upon written instructions from the Department, shall make funds available to compensate third parties for Bodily Injury and Property Damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees to notify [*Owner or Operator*] by Verified Service of a voluntary or involuntary proceeding under Title 11 {Bankruptcy}, U.S. Code naming Guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [*Owner or Operator*] pursuant to the Regulations.

(6) Guarantor agrees to remain bound under this guarantee for so long as [*Local Government Owner or Operator*] shall comply with the applicable financial responsibility requirements of Part D for the above identified ASTs, except that Guarantor may cancel this guarantee by sending notice by Verified Service to [*Owner or Operator*], such cancellation to become effective no earlier than 120 days after receipt of such notice by [*Owner or Operator*], as evidenced by the return receipt. If notified of a probable Release, the Guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the Release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future Releases.

(7) The Guarantor's obligation does not apply to any of the following:

(a) Any obligation of [*Local Government Owner or Operator*] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*insert Local Government Owner or Operator*] arising from, and in the course of, employment by [*insert: Local Government Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [*insert: Local Government Owner or Operator*] that is not the direct result of a Release from an AST;

(e) Bodily injury or Property Damage for which [*insert: Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the Requirements of Part D, §3

(8) Guarantor expressly waives notice of acceptance of this guarantee by the Department, by any or all third parties, or by [*Local Government Owner or Operator*].

I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix O as such regulations were constituted on the effective date shown immediately below.

Effective date:

[*Name of Guarantor*]

[*Authorized signature for Guarantor*]

[*Name of Person signing*]

[*Title of Person signing*]

Signature of witness or notary:

APPENDIX P

LOCAL GOVERNMENT GUARANTEE WITHOUT STANDBY TRUST MADE BY A LOCAL GOVERNMENT

Guarantee made this [*date*] by [*name of guaranteeing entity*], a Local Government organized under the laws of [*name of State*], herein referred to as Guarantor, to DNREC and to any and all third parties, and obliges, on behalf of [*Local Government Owner or O*perator].

Recitals

(1) Guarantor meets or exceeds [*select one: the Local Government bond rating test requirements of Part D, §11, the Local Government financial test requirements of Part D, §12, the Local Government fund under Part D, §14.*]

(2) [*Local Government Owner or Operator*] owns or operates the following aboveground storage tank(s) (ASTs) covered by this guarantee: [*List the number of ASTs at each Facility and the name(s) and address(es) of the Facility(ies) where the ASTs are located. If more than one instrument is used to assure different ASTs at any one Facility, for each AST covered by this instrument, list the AST identification number provided in the registration form submitted pursuant to Part A of the Delaware Regulations Governing Aboveground Storage Tank Systems, and the name and address of the Facility*]. This guarantee satisfies Part D requirements for assuring funding for [*insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage caused by" either "sudden Accidental Releases" or "nonsudden Accidental Releases" or "Accidental Releases"; if coverage is different for different ASTs or locations, indicate the type of coverage applicable to each ASTs or location*] arising from operating the above-identified AST(s) in the amount of [*insert: dollar amount*] per Occurrence and [*insert: dollar amount*] Annual Aggregate.

(3) Incident to our Substantial Business Relationship with [Local Government Owner or Operator], Guarantor guarantees to the Department and to any and all third parties and obliges that:
In the event that [*Local Government Owner or Operator*] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a Release has occurred at an AST covered by this guarantee, the Guarantor, upon written instructions from the Department shall make funds available to pay for corrective actions and compensate third parties for Bodily Injury and Property Damage in an amount not to exceed the coverage limits specified above.

In the event that the Department determines that [*Local Government Owner or Operator*] has failed to perform corrective action for Releases arising out of the operation of the above-identified tank(s) in accordance with Part E, the Guarantor upon written instructions from the Department shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [*Owner or Operator*] fails to satisfy a judgment or award based on a determination of liability for Bodily Injury or Property Damage to third parties caused by *["sudden" and/or "nonsudden"*] Accidental Releases arising from the operation of the above-identified ASTs, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the Guarantor, upon written instructions from the Department, shall make funds available to compensate third parties for Bodily Injury and Property Damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees that if at the end of any fiscal year before cancellation of this guarantee, the Guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), Guarantor shall send within 120 days of such failure, by certified mail, notice to [*Local Government Owner or Operator*], as evidenced by the return receipt.

(5) Guarantor agrees to notify [*Owner or Operator*] by Verifiable Service of a voluntary or involuntary proceeding under Title 11 {Bankruptcy}, U.S. Code naming Guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [*Owner or Operator*] pursuant to the Regulations.

(7) Guarantor agrees to remain bound under this guarantee for so long as [*Local Government Owner or Operator*] shall comply with the applicable financial responsibility requirements of Part D for the above identified ASTs, except that Guarantor may cancel this guarantee by sending notice by Verifiable Service to [*Owner or Operator*], such cancellation to become effective no earlier than 120 days after receipt of such notice by [*Owner or Operator*], as evidenced by the return receipt. If notified of a probable Release, the Guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the Release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future Releases.

(8) The Guarantor's obligation does not apply to any of the following:

(a) Any obligation of [*Local Government Owner or Operator*] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily Injury to an employee of [*insert: Local Government Owner or Operator*] arising from, and in the course of, employment by [*insert: Local Government Owner or Operator*];

(c) Bodily Injury or Property Damage arising from the Ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property Damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [*insert: Local Government Owner or Operator*] that is not the direct result of a Release from an AST;

(e) Bodily Injury or Property Damage for which [*insert: Owner or Operator*] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of Part .

(9) Guarantor expressly waives notice of acceptance of this guarantee by DNREC, by any or all third parties, or by [*Local Government Owner or Operator*],

I hereby certify that the wording of this guarantee is identical to the wording specified in Part D, Appendix P as such regulations were constituted on the effective date shown immediately below.

Effective date:

[*Name of Guarantor*]

[*Authorized signature for Guarantor*]

[*Name of Person signing*]

[*Title of Person signing*]

Signature of witness or notary:

APPENDIX Q
LOCAL GOVERNMENT FUND MECHANISM
Letter from Chief Financial Officer

I am the Chief Financial Officer of [insert: name and address of Local Government Owner or Operator, or Guarantor]. This letter is in support of the use of the Local Government fund mechanism to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for Bodily Injury and Property Damage"] caused by [insert: "sudden Accidental Releases" and/or "nonsudden Accidental Releases"] in the amount of at least [insert: dollar amount] per Occurrence and [insert: dollar amount] Annual Aggregate arising from operating (an) aboveground storage tank(s)(ASTs).

ASTs at the following facilities are assured by this Local Government fund mechanism: [List for each Facility: the name and address of the Facility where ASTs are assured by the Local Government fund].

[Insert: "The Local Government fund is funded for the full amount of coverage required under Part D, §3 , or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage." or "The Local Government fund is funded for ten times the full amount of coverage required under Part D, §3 , or funded for part of the required amount of coverage and used in combination with other mechanisms(s) that provide the remaining coverage," or "A payment is made to the fund once every year for seven years until the fund is fully-funded and [name of Local Government Owner or Operator] has available bonding authority, approved through voter referendum, of an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund" or "A payment is made to the fund once every year for seven years until the fund is fully-funded and I have attached a letter signed by the State Attorney General stating that (1) the use of the bonding authority will not increase the Local Government's debt beyond the legal debt ceilings established by the relevant State laws and (2) that prior voter approval is not necessary before use of the bonding authority"].

The details of the Local Government fund are as follows:
Amount in Fund (market value of fund of close of last fiscal year): _____
[If fund balance is incrementally funded as specified in §24, insert:
Amount added to fund in the most recently completed fiscal year: _____
Number of years remaining in the pay-in period: _____]

A copy of the State constitutional provision, or Local Government statute, charter, ordinance or order dedicating the fund is attached.

I hereby certify that the wording of this letter is identical to the wording specified in Part D, Appendix Q as such Regulations were constituted on the date shown immediately below.

[*Signature*]
[*Name*]
[*Title*]
[*Date*]

PART E.

CORRECTIVE ACTION REQUIREMENTS FOR ASTs

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Section 1. Investigation

1.1. After a Release, other than those that can comply with §8.1.3 of Part A, is confirmed, the Owner and Operator shall conduct an investigation as the first step in the corrective action process unless directed to do otherwise by the Department.

1.2. The purposes of an investigation are to determine:

1.2.1 The nature of the Release, including the chemical compounds present, their concentrations, quantity released and their physical and chemical characteristics related to potential human health and environmental impacts and cleanup procedures; and

1.2.2 The extent of the Release, both horizontal and vertical, including whether the contaminant is distributed homogeneously or heterogeneously; and

1.2.3 The physical characteristics of the site, including characteristics affecting the occurrence, distribution, and movement of the released contaminant and characteristics affecting access to the site, both horizontal and vertical, which may influence the feasibility of various investigatory and remediation procedures; and

1.2.4 An evaluation of the potential risks posed by the Release including identification of environmentally sensitive receptors, and estimate of the impacts to human health and the environment that may occur as a result of the Release.

1.3. The Department shall receive the results of the investigation no later than 120 days after the Release was reported and confirmed. Upon receiving the investigation report, the Department shall review the report and either accept the conclusions and recommendations of the report, require additional information to be submitted, or require that the Owner and Operator submit a corrective action work plan as required by §3 of this Part. Additional investigation information or corrective action work plans requested by the Department shall be submitted within ninety (90) days or other Department approved schedule.

1.4. The Owner and Operator may submit investigation reports for a site separately or as part of a proposed long-term corrective action work plan.

1.5. At any point after reviewing the information contained in the investigation report, the Department may require Owner and Operator to submit additional information or to develop and submit a corrective action work plan to address contaminated soils, surface water or groundwater.

Section 2. Administrative Option for Corrective Action

2.1. The Department may waive the requirement of a investigation when the Owner and Operator has taken the appropriate initial response steps to eliminate imminent dangers and to prevent any further Release and the Owner and Operator chooses to submit a corrective action work plan to remediate contaminated soil, ground water and/or surface water.

2.2. If the Department determines that the implementation of corrective actions are not achieving adequate protection of human health and the environment, the Department may require additional responses to be taken.

2.3. The Owner and Operator may, in the interest of minimizing environmental contamination and promoting more effective corrective action, begin remediation of soil and ground water before the corrective action work plan is approved provided that they:

2.3.1 Notify the Department of their intention to begin remediation; and,

2.3.2 Comply with any conditions imposed by the Department, including halting remediation or mitigating adverse consequences from cleanup activities; and

2.3.3 Incorporate these self-initiated remediation measures in the corrective action work plan that is submitted to the Department for approval pursuant to §3 of this Part.

Section 3. Corrective Action

3.1. Corrective Action Work Plan General Requirements

3.1.1 The corrective action work plan shall address the contamination of soils, ground water and surface water as identified in the investigation report. A corrective action work plan shall provide for adequate protection of the human health, safety and the environment and shall be modified to comply with the requirements contained in these Regulations as necessary.

3.1.2 The Department shall not approve any corrective action work plan that does not ensure adequate protection of human health, welfare, safety and the environment.

3.1.3 An Owner and Operator, who submits a work plan that does not provide for adequate protection of human health, safety, and the environment at the Department's discretion shall modify their corrective action work plan and resubmit the corrective action work plan to the Department within a timeframe specified by the Department.

3.1.4 All corrective action work plans shall be prepared using guidelines established by the Department.

3.2. Approval Requirements for Corrective Action Work Plans

3.2.1 A corrective action work plan shall propose a corrective action option for the site which shall:

3.2.1.1 Address the removal of Free Product to the maximum extent practicable as determined by the Department; and

3.2.1.2 Reduce the contaminant levels at the site based on site-specific information, including the investigation report, in order to protect human health, safety, and the environment, or

3.2.1.3 Reduce the contaminant levels to achieve the clean-up goals negotiated between the Owner and Operator and the Department, or

3.2.1.4 Reduce the contaminant levels to achieve the clean-up goals established by the Department, and

3.2.1.5 Monitor the site over time to provide technically-based assurance that the site contamination is controlled under natural conditions and that those conditions will not now, or at some future time, adversely impact human health, safety or the environment.

3.2.2 The Department shalll approve the corrective action work plan only when satisfied that implementation of the corrective action work plan provides for measures considered adequate to protect human health, safety, and the

environment. In making this determination, the Department shall consider the following factors as appropriate:

3.2.2.1 The physical and chemical characteristics of the Regulated Substance, including its toxicity, persistence, and potential for migration;

3.2.2.2 The report of the investigation conducted under §1of this Part;

3.2.2.3 The proximity, quality, and current and future uses of nearby surface water and groundwater and soil;

3.2.2.4 An exposure assessment;

3.2.2.5 Any information assembled in compliance with this Part of the Regulations; and

3.2.2.6 The potential effects of residual contamination on nearby surface water and groundwater and soil.

3.2.3 The corrective action work plan shall be organized in report form and all or portions of the report may be required to be signed by a professional geologist or Professional Engineer registered in the State of Delaware as determined by the Department.

3.2.4 The corrective action work plan may propose a phased approach to site remediation.

3.3. Quality Assurance/Quality Control

3.3.1 A site-specific Quality Assurance/Quality Control (QA/QC) plan for the activities to be carried out during implementation of the corrective action work plan shall be formulated and approved by the Department prior to the implementation of any site activities. This QA/QC Plan shall be included in the corrective action work plan and shall cover all actions proposed in the work plan.

3.4. Site Safety

3.4.1 A site-specific health and safety plan shall be included in the corrective action work plan and shall cover all corrective action tasks. The health and safety plan shall address the site worker protection levels, protection of persons living near the site and site access control during remediation.

3.4.2 The Department shall approve a corrective action work plan only after ensuring that the health and safety plan will provide for adequate protection of human health, safety and the environment during and after the implementation of the corrective action work plan.

3.5. Corrective Action Work Plan Implementation and Monitoring Schedule

3.5.1 Upon approval of the corrective action work plan by the Department, the Owner and Operator shall implement the corrective action work plan, including any modifications to the corrective action work plan made by the Department, within thirty (30) days. As a minimum, the Owner and Operator shall monitor, evaluate and report the results of implementing the corrective action work plan quarterly (four times per calendar year), or within the time schedule approved by the Department in the corrective action work plan.

3.5.2 The Owner and Operator shall evaluate the effectiveness of the implemented corrective action work plan after one (1) year and shall submit to the Department for approval either:

3.5.2.1 A request for no further action in accordance with §3.6 of this Part; or

3.5.2.2 A revised corrective action work plan prepared in accordance with the requirements of §3.1 of this Part; or

3.5.2.3 A request to continue implementation of the approved corrective action work plan and monitoring schedule in accordance with §3.5.1 of this Part.

3.5.3 Copies of all manifests and records documenting the off-site transport and disposal of any Free Product, contaminated water and soil, or other waste that is generated at the site as a result of the implementation of the corrective action work plan, shall be submitted to the Department not less than once per quarter.

3.6. Requirements for No Further Action

3.6.1 The Owner and Operator shall achieve the clean up goals established in the approved corrective action work plan.

3.6.2 After all corrective action work plan goals have been achieved, the Owner and Operator shall submit a request for a letter of no further action. The request for no further action shall be submitted in a report form. No further action documentation shall include but may not be limited to the following:

3.6.2.1 A demonstration that the corrective actions implemented assure adequate protection of human health, safety and the environment now and in the future.

3.6.2.2 A demonstration that Free Product has been removed to the extent practicable according to the requirement in §3.2.1.1 of this Part. If Free Product persists at the site, the Owner and Operator shall provide the Department with an acceptable rationale for discontinuing corrective action and monitoring efforts.

3.6.2.3 The Owner and Operator shall submit all documents, not previously submitted, verifying that all wastes have been properly transported and disposed.

3.6.2.4 The Owner and Operator shall submit a summary of major events and accomplishments achieved during the investigation/remediation process.

3.6.3 The final report shall be signed by a professional geologist or Professional Engineer licensed in the State of Delaware, as determined by the Department.

3.6.4 After approving the final report the Department shall issue a letter of no further action, documenting that site clean-up objectives have been met. The approval for no further action does not absolve the Owner and Operator from previously incurred or potential future liability.