WEST VIRGINIA SECRETARY OF STATE

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FORM 4 -- NOTICE OF RULE MODIFICATION OF A PROPOSED RULE

AGENCY **Water Resources Division Of Water And Waste Management**
RULE TYPE **Legislative** AMENDMENT TO EXISTING RULE **No** TITLE-SERIES **47-63**
RULE NAME **Aboveground Storage Tanks**

CITE AUTHORITY **22-30-5(b)**

THE ABOVE PROPOSED LEGISLATIVE RULES, FOLLOWING REVIEW BY THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE, IS HEREBY MODIFIED AS A RESULT OF REVIEW AND COMMENT BY THE LEGISLATIVE RULE MAKING REVIEW COMMITTEE. THE ATTACHED MOFICATIONS ARE FILED WITH THE SECRETARY OF STATE.

Legislative Rule-Making

NOV 30 2015

Review Committee

BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.
Yes

Kristin A Boggs -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.

Title-Series: 47-63 Rule Id: 9869 Document: 27275

TITLE 47

LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

SERIES 63
ABOVEGROUND STORAGE TANKS

§47-63-1. General.

1.1. Scope. -- This legislative rule governs the registration, construction, installation, upgrading, use, inspection, maintenance, testing, and closure of aboveground storage tanks in this State.

1.2. Authority. -- W. Va. Code § 22-30-23

1.3. Filing Date. --

1.4. Effective Date. --

1.5. Applicability –

1.5.a. The following are excluded from the requirements of this Rule because the Secretary has determined that they are tanks that do not represent a substantial threat of contamination or because they are equipment whose storage of substances is incidental to their predominant usage as equipment:

1.5.a.1. Surface impoundments, pits, ponds, lagoons, septic tanks, in ground sumps, or home aeration systems;

1.5.a.2. Heating and cooling equipment; and

1.5.a.3. Equipment or machinery containing substances for operational purposes, such as hydraulic lifts and lubricating oil reservoirs for pumps and motors.

1.5.b If necessary to protect public health or the environment, the Secretary may designate a change in the level assigned for an AST system.

1.5.c. Nonoperational tanks are subject only to Section 3 (Registration), Section 5.6 (Labeling and Signage Requirements), and Section 11.1 (Nonoperational ASTs) ~~not subject to Sections 5 (Operation and Maintenance), 8 (AST Design, Construction, and Installation), 9 (Corrosion and Deterioration Prevention), and 10 (Release Prevention, Leak Detection, and Secondary Containment),~~ of this Rule because by definition these tanks are empty and will not receive or dispense substances after June 12, 2015.

1.5.d. Storage tanks located in an underground area (such as a basement, vault or cellar) are aboveground storage tanks if the tanks are situated upon or above the surface of the floor. Storage tanks located in underground mines are not aboveground storage tanks.

1.6 Reference Standards -- The industry standards developed by the organizations listed below serve, in part, as the basis for the standards enacted under this Rule.

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

1.6.b. American Petroleum Institute (API), 1220 L Street, N.W., Washington, D.C. 20005

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

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

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

1.6.f. Fiberglass Tank and Pipe Institute, 14323 Heatherfield, Houston, Texas 77079-7404

1.6.g. National Association of Corrosion Engineers (NACE), P. O. Box 218340, Houston, Texas 77218

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

1.6.i. Petroleum Equipment Institute, P. O. Box 2380, Tulsa, OK 74101-2380

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

1.6.k. Underwriters Laboratories (UL), 333 Pfingsten Road, Northbrook, Illinois 60062

1.6.l. In this Rule, all referenced standards mean the most recent edition or version.

1.6.m. Where there is an irreconcilable conflict between the manufacturer's recommendation, a standard or recommendation published by an industry or professional organization, and a requirement in this Rule, this Rule applies, unless the Secretary otherwise approves.

§47-63-2. Definitions.

2.1. Unless the context in which used clearly requires a different meaning, the definitions contained in W. Va. Code § 22-30-3 apply to this Rule, in addition to those definitions set forth below:

2.2. "Aboveground storage tank system" means an aboveground storage tank as defined by W. Va. Code § 22-30-3(1), its piping, and all its ancillary equipment, including dispensing systems, spill containment devices, overfill protection devices, secondary containment systems, and any associated release detection equipment, up to the first point of isolation.

2.3. "Ancillary equipment" means electrical, vapor recovery, access or other systems and devices, including, but not limited to: piping, fittings, flanges, sumps, valves, and pumps used to distribute, meter, monitor or control the flow of fluids to or from a storage tank system.

2.4. "Cathodic protection" means a technique that prevents corrosion of a metal surface by converting all the anodic (active) sites on the metal surface to cathodic (passive) sites by supplying electrical current (or free electrons) from an alternate source.

2.5. "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of common types of cathodic protection systems as applied to ~~buried or submerged~~ metal piping and tank systems. At a minimum, the person shall have education and experience in soil resistivity, stray current, structure to soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

2.6. "Certified API Inspector" means an individual who holds a current certification by the American Petroleum Institute (API) under the terms of the API 653 or API 570 certification programs to perform aboveground storage tank inspections and piping, respectively.

2.7. "Certified STI Inspector" means an individual who holds a current certification by the Steel Tank Institute (STI) under the terms of the STI certification program to perform Shop-Fabricated aboveground storage tank inspections.

2.8. "Certifying person" means a person who may sign the annual inspection certification pursuant to Section 5.2 of this Rule.

2.9. "Change in service" means any change to a registered aboveground storage tank to include, but not be limited to, substantive change in contents, relocation, or permanent closure. ~~or change in status from either currently in use (CIU) or temporarily out of service (TOS).~~

2.10. "Combustible Liquid" means any liquid that has a closed cup flash point at or above 100 degrees Fahrenheit and below 200 degrees Fahrenheit as determined by test procedures such as ASTM D 56, ASTM D 93, ASTM D 3278, ASTM D 3828 or SW-846 Method 1010.

2.11. "Compartment tank" means a single tank that has multiple sections that can contain different substances or separate volumes of the same substance.

2.12. "Compatible or compatibility" 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 the AST system under conditions likely to be encountered in the AST system.

2.13. "Confirmed release" means verification that a substance has been discharged from the AST system components into the waters of the State or has escaped from secondary containment.

2.14. "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on ~~buried or submerged~~ metal piping systems and metal tanks. This person shall be accredited or certified as being qualified by the National Association of Corrosion Engineers.

2.15. "Corrosion protection" means the protection of metal from deterioration due to corrosion. The deterioration may be due to a natural electrochemical reaction between the metal and the soil or other electrolyte or because of stray direct currents.

2.16. "Currently in use (CIU)" means that the AST is operational and is storing fluids or receiving or dispensing fluids on a routine or periodic basis.

2.17. "Department" means the West Virginia Department of Environmental Protection.

2.18. "Dispenser system" means equipment located aboveground that meters the amount of fluids transferred to a point of use outside the AST system, such as a motor vehicle. This system includes the equipment necessary to connect the dispenser to the aboveground storage tank system.

2.19. "Discovery" means either actual knowledge or knowledge of facts that could reasonably lead to actual knowledge of the existence of an incident, spill, release, discharge or an unmaintained aboveground storage tank system or secondary containment structure.

2.20. "Emergency venting" means a tank opening designed to relieve excess pressure caused by fire exposure to the outside of a tank.

2.21. "Empty" means an AST ~~and associated piping~~ in which all materials have been removed using commonly employed practices such that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the AST system remain in the system, but in no case will ~~A~~an AST containing 1,320 gallons or more of fluids be ~~is not~~ considered empty.

2.22. "Existing AST" means a tank for which physical installation began on or before the effective date of this rule.

2.23. "Facility" means a ~~location~~ site that currently contains, is expected to contain, or that has contained an AST system that is ~~located~~ situated on the same or geographically contiguous property as the AST system, that is under the same ownership or control, and that

may be divided by a public or private right-of-way or an easement. However, oil or gas entities with multiple tanks at various locations may consider their or their operator's company office or laydown yard as their facility location for purposes of AST registration and financial responsibility requirements set forth in section 13 of this Rule.

2.24. "Field-erected storage tank" means an AST that is constructed by assembling it at the facility.

2.25. "Flammable Liquid" means any liquid that has a closed cup flash point below 100 degrees Fahrenheit as determined by test procedures such as ASTM D 56, ASTM D 93, ASTM D 3278, ASTM D 3828, or SW-846 Method 1010 and a Reid vapor pressure that does not exceed an absolute pressure of 40 pounds per square inch at 100 degrees Fahrenheit as determined by ASTM D 323.

2.26. "Imminent threat of failure or threatened release" means a condition that creates a substantial probability of harm from a potential discharge from the AST system, requiring immediate action to prevent, reduce or mitigate the actual or potential damages to public health or the environment.

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

2.28. "Impressed current system" means direct current supplied to a cathodic protection system.

2.29. "In contact with the soil or an electrolyte" means any portion of the AST system that physically touches the soil or any electrolyte such as water or which is not in direct contact with the soil or electrolyte and is separated from the soil or electrolyte only by a casing, wrapping or other material that is not waterproof.

2.30. "Internal lining" means a material that is applied internally to an AST to protect the tank from internal corrosion or to meet compatibility requirements.

2.31. "Install" means activities to construct, reconstruct, erect or put into service a storage tank, a storage tank system or storage tank facility.

2.32. "Interstice" means, in a double-walled AST, the space between the primary tank and secondary tank; in a double bottomed AST, it means the space or void between the two bottoms; in double wall piping, it means the space between the inner and outer pipes. This space may be open or closed to the atmosphere and may be monitored or tested by vacuum or leak detection equipment or by visual inspection.

2.33. "Interstitial monitoring" means an electronic, visual or manual release detection method that is used in double walled or double bottom tanks or piping to determine the presence of fluids outside of the primary containment and within the interstice.

2.34. "Location, service location or site" means a facility as defined in Section 2.23 of this Rule. ~~where an AST system is located.~~

2.35. "Leak detection" means electronic, visual, manual or mechanical measurement of the contents or other characteristics or parameters of an AST that notifies the owner or operator that the contents are not being contained within the AST system and that a release may have occurred.

2.36. "Maintenance" means the normal operational upkeep to prevent an aboveground storage tank system or secondary containment structure from releasing fluids in an uncontrolled manner.

2.37. "Manifolded tanks" means two or more tanks connected by piping that collectively contain a ~~the~~ similar ~~ame~~ type of substance~~s~~ and are operated as one tank without a first point of isolation between the tanks. ~~in such a manner that if a leak from one tank or the manifolded piping is capable of emptying the other manifolded tanks.~~ The total capacity of manifolded tanks shall be calculated and utilized to determine if the AST is subject to registration or meets the capacity requirements to be considered a Level 1 AST.~~, unless the tanks are connected in a manner that prevents fluids flowing from one tank to another under any conditions.~~

2.38. "Major modification" means an activity to upgrade, repair, refurbish or restore all or any part of an existing AST system, which alters the original design of the AST system and may affect the structural integrity of that storage tank system.

2.39. "Mobile tank" means an AST that is designed and constructed to be moved to different service locations, and its relocation is inherent in its use. An AST is not considered mobile if the AST is ~~otherwise installed as a fixed component (i.e. AST on saddles, legs, stilts, rack or cradle, etc.) or is~~ field erected at the site. A mobile tank is not a regulated AST unless it has been in one location for three hundred sixty five (365) days.

2.40. "New AST" means a tank for which physical installation began on or after the effective date of this Rule.

2.41. "Nonaqueous phase liquid (NAPL)" means a liquid that does not mix easily with water.

2.42. "Normal venting" means a tank opening that is provided primarily to relieve excess pressure caused by liquid filling a tank and to relieve vacuum that results from liquid being removed from a tank. Normal venting also allows equalization of interior and exterior pressures associated with atmospheric temperature and pressure changes.

2.43. "Operational life" means the period beginning when installation of the tank system has commenced until the time the tank system is closed in accordance with Section 11.34.

2.44. "Operational status" means the working condition of the AST such as currently in use, ~~temporarily out of service,~~ nonoperational or permanently out of service.

2.45. "Overfill" means a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of a fluid from an AST to the environment.

2.46. "Permanent closure" means the AST ~~and associated piping~~ is empty, cleaned of all materials and residues, and rendered incapable of holding fluid. Tanks that undergo permanent closure are no longer ASTs as defined by the Act.

2.47. "Permanently out of service (POS)" means an AST that has undergone permanent closure ~~and associated piping that have been emptied and rendered incapable of holding fluids in accordance with Section 11.4 of this Rule.~~ POS AST systems are no longer subject to the provisions of this Rule.

2.48. "Petroleum" means crude oil or refined hydrocarbons derived from crude oil such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, used oils, and natural gas condensate.

2.49. "Pipe" or "Piping" means a hollow cylinder or tubular conveyance through which fluids flow. It must be constructed of non-earthen materials and in accordance with NFPA, API, STI, UL or other nationally recognized piping standards for storage tanks.

2.50. "Professional engineer" means a person who has been duly registered or licensed as a professional engineer by the West Virginia Board of Registration for Professional Engineers, as set forth in W. Va. Code § 30-13-1, et seq.

2.51. "Qualified" means someone who, by training or education, is knowledgeable and experienced in AST design, construction and installation, maintenance of corrosion detection equipment, and release prevention and detection equipment, including secondary containment structures.

2.52. "Reconstruction" means the work necessary to reassemble a storage tank that has been dismantled and reassembled at the site or at a new site.

2.53. "Release detection" means the determination, through a method or combination of methods, whether an accidental release of fluids has occurred from an aboveground storage tank system into a secondary containment structure, into the interstitial space between the primary tank or piping for a double walled tank or piping system or into the environment.

2.54. "Release prevention barrier" means a barricade such as steel bottoms, synthetic materials, clay liners or concrete pads placed in the bottom of or under a tank, which has the

function of preventing the escape of released material and channeling the released material for leak detection.

2.55. "Repair" means to restore a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other AST system component that has caused a release or a suspected release of a product from the AST system, has failed to function properly or is damaged or deteriorated.

2.56. "Risk based inspection (RBI)" means an alternative method to performing internal inspections on a set schedule by requiring a systematic evaluation of both the likelihood of failure and the associated consequences of failure in order to determine a tank specific schedule for internal inspection. RBIs must adhere to the requirements set forth in API 653 and API RP 580.

2.57. "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.

2.58. "Secretary" means the Cabinet Secretary of the Department of Environmental Protection or his or her designee.

2.59. "Shop-fabricated storage tank" means an AST that is constructed at the tank manufacturer's plant and transported wholly to the facility for installation.

2.60. "Standard temperature and pressure" means a temperature of sixty-eight degrees Fahrenheit (68°F) and an absolute pressure of 1.0 atmosphere.

2.61. "Sufficient freeboard" means adequate additional capacity required for the secondary containment structure to contain the full capacity of the largest tank within the structure plus precipitation if it can collect in the structure. The owner or operator is responsible for ensuring that secondary containment structures have capacity to contain the contents of the largest tank, assumed to be full, within the secondary containment structure, plus sufficient additional capacity for precipitation events as determined in accordance with subdivision 10.2.i. of this Rule.

2.62. "Sufficiently impervious" means a material or structure of enough thickness, density, and composition that it will prevent the discharge of fluids to the lands or waters of the State for a period of time sufficient to allow removal and disposal of the discharged material, but in no case would that time be less than seventy-two (72) hours. ~~or a material or structure that has a permeability of less than 1×10^{-6} cm/sec.~~

2.63. "Suspected or threatened release" means a potential exists that an unplanned or unintentional discharge of substance from the AST system may have occurred or, based upon information obtained from any source, may occur, such as substance from the AST observed in the secondary containment structure, testing, sampling, monitoring results from a release detection method or observed unusual operating conditions of an AST system.

~~2.64. "Temporarily out of service (TOS)" means a tank that may contain material but that is not currently in use receiving or dispensing fluid for one year hundred eighty (180) days, but whose active use is intended in the future.~~

2.64~~5~~. "Underground vault" means a structure that is beneath the surface of the ground and is designed specifically to contain an aboveground storage tank. A basement is not considered a vault.

2.65~~6~~. "Underground area" means an underground room, such as a basement, cellar or vault that provides enough space for physical inspection of the exterior of a tank situated on or above the surface of the floor.

2.66~~7~~. "Upgrade" means the addition or retrofit of systems that may include, but may not be limited to, cathodic protection, lining or spill and overfill controls to meet a higher, new or current standard and improve the ability of an aboveground storage tank system to prevent the release of fluids.

2.67~~8~~. "Unusual operating conditions" means conditions not normal in the operation of the AST system, such as the erratic behavior of product dispensing equipment, the sudden loss of product from the AST system, discovery of holes in a storage tank or its piping or the unexplained presence of water in the tank.

2.68~~9~~. "Vault" means a structure that completely encloses the tank and must be constructed of materials compatible with the fluids to be contained in the AST.

§47-63-3 Registration.

3.1. Registration Requirements. – Every owner of an aboveground storage tank shall register each AST located in West Virginia, regardless of its operational state, except that permanently out of service tanks are not required to be registered.

3.1.a. For compartment tanks, the total capacity of all compartments shall be calculated and utilized to determine whether the tank meets the size requirement (1,320 or more gallons of liquid) necessary to qualify as a regulated AST pursuant to the Act and this Rule.

3.1.b. For manifolded tanks, the total capacity of the manifolded tanks shall be calculated and utilized to determine whether the tank meets the requirements (1,320 or more gallons of liquid) necessary to qualify as a regulated AST pursuant to the Act and this Rule, and whether it meets the capacity requirements to be a Level 1 AST.~~, unless the tanks are connected in a manner that prevents fluids flowing from one tank to another under any conditions.~~ For registration purposes, manifolded tanks will be treated as compartment tanks.

3.1.c. All aboveground storage tanks placed into service on or after July 1, 2015 shall be registered prior to being placed into active service.

3.1.c.1. On and after July 1, 2015, it shall be unlawful for any owner or operator to

operate, use or store substances in an aboveground storage tank that has not been properly registered or for which any applicable registration fee has not been ~~timely~~ paid.

3.1.c.2. Tank owners shall register each aboveground storage tank with the Secretary, except as specifically excluded by this Rule, on a form and in a manner provided by the Secretary, within thirty (30) days after installation or acquisition of an ownership interest in the storage tank. ~~Unless otherwise approved by the Secretary in writing, fluids may not be placed in the tank and the tank may not be operated until the tank is properly registered in the new tank owner's name, the registration fee has been paid, and a certificate to operate has been issued to the new tank owner for the Level 1 and Level 2 regulated ASTs~~.

3.1.d. Tank owners shall submit an amended registration form to the Secretary within thirty (30) days of a change in the previously submitted information, except for a registration form to amend registration for change in the substance stored in the tank or relocation of a tank to a zone of critical concern, in which case the amended registration must be submitted within three (3) days. Amended registrations shall be made for the following:

3.1.d.1. Removal or relocation of a storage tank to a new facility;

3.1.d.2. Change in operating status of the AST~~, except that ASTs that are put in TOS status for inspections, testing, painting or minor repairs or maintenance do not have to amend their registration if the status change is for a period of one year hundred eighty (180) days or less.~~

3.1.d.3. Change in use of a storage tank to or from the statutory definition of an AST ~~regulated to non regulated status~~, i.e. changing the container's use from being a storage tank to being a process vessel.

3.1.d.4. Change in substance or substances stored in the tank. Changes in formulations (such as changing grades of gasoline, seasonal variations in formulations, minor fluctuations in concentrations, etc.) that would not substantially change the response actions for releases would not be considered a change in substance.

3.1.d.5. Change of ownership or change of operator.

3.1.d.6. Change of contact, mailing address or telephone number.

3.1.e. The Secretary may require submission of supporting documentation as necessary to confirm or clarify registration information as part of the registration process.

3.1.f. Any change in the corporate or business structure of the aboveground storage tank owner which affects the legal name of the tank owner ~~constitutes a transfer of ownership that~~ requires notification to the Secretary.

3.2. Owners of regulated mobile tanks are required to modify their registrations when the tank is moved from one facility to another facility in accordance with subdivision 3.1.d.

3.3. Owners may register multiple aboveground storage tanks at a single facility using one aboveground storage tank registration process prescribed by the Secretary, but owners of aboveground storage tanks located at more than one facility shall complete a separate aboveground storage tank registration form for each facility.

3.4. ~~Notification of Installation. – Owners of regulated aboveground storage tanks who are going to install an AST system must submit to the Secretary, at least thirty (30) days prior to commencing installation, a completed AST Installation Application Form prescribed by the Secretary. The thirty (30) day time period may be waived when the action is in response to a release from an existing aboveground storage tank or AST system on the site, when the action is in response to a tank that has been determined to be not fit for service or at the discretion of the Secretary for good cause shown. 3.4.a.~~ Owners of regulated mobile tanks that are being relocated from one facility to another ~~facility do not need to perform the requirements of this subsection, so long as the owner modifies~~ shall modify the registration of the moved tank to reflect the tank's new location and contents if the contents of the tank have changed. ~~3.4.b.~~ Owners of tanks that were once mobile but are being installed as stationary at a facility must comply with the requirements of this subsection.

3.5. Notification of Closure. – An owner of a regulated AST or AST system who closes a tank shall submit to the Secretary an AST closure form at least thirty (30) days prior to beginning the permanent closure. The owner must adhere to the requirements for permanent closure as specified in subsection 11.34 of this Rule and as provided in permanent closure guidance documents developed by the Secretary. The thirty (30) day time period may be waived when the action is in response to a release from an existing aboveground storage tank or AST system on the site or at the discretion of the Secretary for good cause shown.

3.6. If an AST is transferred from one owner to another owner, the new owner shall ~~submit to the Secretary,~~ register the AST no later than thirty (30) days after transfer of ownership~~, a completed AST Change of Ownership Form prescribed by the Secretary~~ and provide proof of financial responsibility in accordance with Section 12~~3~~ of this Rule.

~~3.6.a. The owner selling the AST shall notify the new owner, in writing, of the registration requirements of this Rule.~~

~~3.6.b. The new owner shall not operate the AST until it is properly registered with the new owner's information, the appropriate fees have been paid if due, and a certificate to operate has been issued to the new owner for the AST.~~

§47-63-4. AST Certificates to Operate and Permits/Plans.

4.1.a. The owner's registration form shall also serve as a basis for an AST Certificate to Operate application for Level 1 and Level 2 ASTs. An AST Certificate to Operate will be issued only for Level 1 and Level 2 regulated ASTs.

4.1.a.1 An AST Certificate to Operate may be issued solely on the basis of the registration form, if the Secretary determines that sufficient information to issue the Certificate to Operate is contained within the registration.

4.1.a.2. The Secretary may request supplemental information as needed in order to issue an AST Certificate to Operate.

4.1.b. Failure to register a tank, failure to obtain a Certificate to Operate or revocation of a Certificate to Operate does not relieve a tank owner or operator from the obligation to fully comply with all applicable requirements of the AST Act and its Rules.

4.1.c. AST Certificates to Operate will be renewed automatically on an annual basis concurrent with the payment of tank fees as established in the Aboveground Storage Tank Fee Assessment Rule, provided that:

4.1.c.1. Tank fees are paid in a timely manner as established in the Aboveground Storage Tank Fee Assessment Rule.

4.1.c.2. The owner or operator maintains financial responsibility for the regulated AST system in accordance with the requirements of Section 12~~3~~ of this Rule.

4.1.c.3. The owner or operator continues to comply with the requirements of the AST Act and all Rules promulgated thereunder.

4.2 Amendment of Site Specific Permits or Plans to Incorporate AST Requirements

4.2.a. For those entities subject to site-specific permits and plans, the Secretary may amend those permits or plans to include conditions pertaining to the management and control of regulated tanks. Until such time that these permits or plans are amended and finalized, all requirements of the AST Act and its Rules are applicable. A site-specific permit or plan may be amended provided that:

4.2.a.1. The permittee is the tank owner or operator;

4.2.a.2. The permittee provides a written request to the Secretary for modification of its plan or permit, which includes, at a minimum, the following:

4.2.a.2.A. Detailed information concerning spill prevention and response, as well as the AST's and secondary containment structure's operation, inspection, integrity, and maintenance;

4.2.a.2.B. A statement indicating which industry standards (including but not limited to API 653 Standards for Tank Inspection, Repair, Alteration and Reconstruction) will be followed. ~~The Secretary will interpret this statement to mean that the permittee adheres to all recommendations and requirements within the standard, such that the terms "should", "may", "recommends", etc. will have the same meaning as "shall" within the standard. The Secretary~~

~~will also interpret this statement to mean that references to other industry standards found within the cited standard will apply to the AST and secondary containment system.~~ AST owners and operators are required to comply with all industry standards identified as applicable.

4.2.a.2.C. Identification of the first point of isolation for each regulated AST, including identification of the associated ancillary equipment for each AST that is located prior to the first point of isolation;

4.2.b. Tank owners or operators who choose to include conditions pertaining to the management and control of regulated tanks in site specific permits or plans shall complete inspections as set forth in subsection 5.2 of this rule.

4.2.c. If for any reason a site-specific permit that contains AST modifications is suspended, revoked or not re-issued by the Secretary, the owner or operator of the AST shall be subject to the AST Act and all associated rules in their entirety.

4.3 Siting Requirements for New Regulated ASTs

4.3.a. New regulated ASTs storing flammable or combustible liquids must be positioned to meet all applicable setback and distance from buildings required by the local jurisdiction and the State Fire Marshal's office for flammable and combustible substances.

4.3.b. To allow for proper inspection, new regulated ASTs that are using visual methods alone for leak detection must have a minimum spacing of not less than three (3) feet between tanks and between tanks and dike or vault walls, or a substantially unobstructed view to determine leakage. Mobile tanks are not subject to the minimum spacing requirement for new ASTs.

~~4.3.c. The Secretary may not approve an installation application for regulated ASTs at new facilities if:~~

~~4.3.c.1. The new facility is located within a zone of critical concern, unless a professional engineer's construction design criteria and engineering specifications indicate that sufficient controls are present to protect water supplies;~~

~~4.3.c.2. The new facility is located at a site with karst topography, unless a professional engineer's construction design criteria and engineering specifications indicate that surface or subsurface conditions will not result in excessive tank system settlement or unstable support of the proposed regulated AST system; or~~

~~4.3.c.3. T the Secretary determines that the installation of the regulated AST system poses a threat to human health or the environment.~~

§47-63-5. Operation and Maintenance Requirements.

5.1 Routine Maintenance Inspections – The owner or operator shall establish and implement routine inspections of conditions at each storage tank facility with regulated ASTs.

5.1.a. Secondary Containment Structure Inspections. – The owner or operator shall ensure that visual inspections of the secondary containment area are performed, at a minimum, once every fourteen (14) ~~seven (7)~~ days for Level 1 AST systems and, at a minimum, at the time of the monthly check required in Section 5.1.b. of this Rule for Level 2 AST systems. The visual inspection may be accomplished by or supplemented with electronic surveillance and shall include:

5.1.a.1. A check of the facility to ensure that no potential hazardous environmental conditions exist associated with the regulated AST system, such as a check for evidence of an obvious release, spill, overflow or leakage from the regulated AST system, including any ancillary regulated equipment;

5.1.a.2. A check for signs of deterioration, discharges or accumulation of liquid substances, including water, inside the secondary containment area and confirmation that containment drain valves are secured in a closed position when not in use;

5.1.a.3. If water accumulation within the secondary containment results in the capacity of the containment being reduced by ten percent (10%) or more, the accumulated water shall be drained off and disposed of in accordance with applicable State and Federal requirements;

5.1.a.4. The inspection of the secondary containment structure shall be documented by the individual who conducted it and records maintained for a minimum of twelve (12) continuous months for review upon request by the Secretary.

5.1.b. Monthly AST Visual Inspection. – An owner or operator shall ensure that a maintenance check of the regulated AST and ancillary equipment up to the first point of isolation is performed each month for Level 1 and Level 2 AST systems. The monthly maintenance check shall include:

5.1.b.1 Monitoring of the leak detection method for each regulated AST and regulated piping up to the first point of isolation at least once per calendar month in accordance with the requirements of subsection 10.3 of this rule.

5.1.b.2. A visual inspection of the tank system exterior surfaces for deterioration and maintenance deficiencies, including a visual check for cracks, areas of wear, distortion, corrosion, settlement, and deterioration of the foundation and supports; the condition of external coatings and paints; and the condition of insulation, if present.

5.1.b.3. Ancillary equipment and appurtenances up to the first point of isolation shall be visually checked for leaks, operational malfunctions, and signs of deterioration.

5.1.b.4. A check of overfill prevention equipment.

5.1.b.5. The monthly maintenance check shall be documented by the individual who conducted the check and records maintained for a minimum of twelve (12) continuous months for review upon request by the Secretary.

5.1.b.6. The owner or operator shall ensure that the results of the monthly routine checks are monitored and reviewed to ensure that any needed repairs can be made in a timely manner.

5.1.b.6.A. The owner or operator shall ensure that any changes to the regulated AST system noted in the monthly inspection that could negatively affect AST system integrity are further assessed by a qualified Professional Engineer, API or STI certified inspector, or by a person holding certification under another program approved by the Secretary as soon as is practical, but in no case more than thirty (30) days from the inspection.

5.1.b.6.B. The owner or operator shall ensure that malfunctioning equipment and appurtenances are repaired, replaced, or removed from service, immediately as possible, but in no case more than thirty (30) days from discovery that the equipment is malfunctioning, in order to prevent releases. The Secretary may specify another reasonable time period for completion of repairs.

5.1.b.6.C. The owner or operator shall ensure weakening equipment and appurtenances that pose an imminent threat of failure that could result in a release are repaired and/or replaced in a timely manner, but no longer than thirty (30) days, after discovering, or being notified by the Secretary, that the equipment is at risk for failure. The Secretary may specify another reasonable time period for completion of repairs.

5.2. Inspection Requirements.

5.2.a. Within one hundred eighty (180) days of the effective date of this Rule, owners or operators of an existing aboveground storage tank shall submit a certification that each regulated AST and its associated secondary containment structure have been evaluated by a qualified individual and meets the standards established in this Rule. The following persons are considered qualified and may inspect a regulated AST and its associated containment structure:

5.2.a.1. A qualified professional engineer as determined by the State Board of Registration for Professional Engineers; or

5.2.a.2. A qualified person working under the direct supervision of a professional engineer; or

5.2.a.3. An individual certified to perform tank inspections by the American Petroleum Institute or the Steel Tank Institute; or

5.2.a.4. A person holding certification under another program approved by the Secretary.

5.2.b. Any person who performs a tank evaluation in accordance with subdivision 5.2.a or a responsible person designated by the owner or operator may certify the regulated AST and secondary containment system; however, the AST owner or operator is responsible for the inspection and subsequent certification submittals. Every owner or operator shall submit, on a form and in a manner prescribed by the Secretary, a certification attesting to the condition of each AST system within one hundred eighty (180) days of the effective date of this Rule, and on or before January 1, 2018 and then on or before January 1 of each year thereafter.

5.2.b.1. For Level 1 AST systems subject to this Rule, the initial inspection under this Rule and subsequent inspections every third year thereafter shall be conducted ~~certified~~ by a ~~Professional Engineer (PE), an API certified inspector or a STI certified inspector,~~ person listed in paragraphs 5.2.a.1 through 5.2.a.4 above, except that any Level 1 AST properly inspected and certified pursuant to the Interpretive Rule (47 CSR 62) will be considered to have met the initial inspection criteria under this Rule.

5.2.b.2. For Level 2 AST systems subject to this Rule, the initial inspection under this Rule and subsequent inspections every fifth year thereafter shall be ~~certified~~ conducted by a ~~PE, an API certified inspector or a STI certified inspector,~~ person listed in paragraphs 5.2.a.1 through 5.2.a.4 above, except that any Level 2 AST properly inspected and certified ~~by a PE, an API certified inspector or a STI certified inspector under~~ pursuant to the Interpretive Rule (47 CSR 62) will be considered to have met the initial inspection criteria under this Rule.

5.2.b.3. For both Level 1 and Level 2 AST systems subject to this Rule, the tank owner or operator shall certify annual inspections in intervening years between ~~the PE, API or STI inspections and certifications, unless the tank in the intervening years is inspected by a PE, API or STI certified inspector~~ the inspections described in paragraphs 5.2.b.1 and 5.2.b.2. ~~who certifies the tank.~~ The owner or operator conducting his or her inspection certification is not ~~inspection certification performed by the tank owner or operator will not be~~ required to certify tank integrity, but must certify whether or not any obvious change occurred to the AST System in intervening years between certifications performed by a PE, API or STI certified inspector or inspections by a person holding certification under another program approved by the Secretary.

5.2.b.4 The certification form shall be submitted to the Secretary within one hundred eighty (180) days of the effective date of this Rule, and on or before January 1, 2018 and then on or before January 1 of each year thereafter for each duly registered regulated AST system.

5.2.b.5. The tank owner, operator, or a qualified representative of the tank owner or operator may perform inspections on tanks in intervening years between inspections by individuals listed in paragraphs 5.2.a.1 through 5.2.a.4. provided that the individual performing the inspection is qualified to perform tank inspections.

5.2.b.5.A. A Fit for Service certification form shall be completed and signed by the applicable certifying person when it is determined that the regulated AST system meets the minimum standards established by this Rule.

5.2.b.5.B. The certifying person shall document in writing any deficiencies found during the inspection of the regulated AST system and provide recommendations, including a proposed schedule, for abating the deficiencies. This documentation shall be attached to and submitted with the Fit for Service certification form.

5.2.b.5.C. A Not Fit for Service certification form shall be completed and signed by the certifying person when it is determined that the regulated AST system does not meet the minimum integrity standards established by this Rule.

5.2.b.5.D The certifying person shall document in writing any deficiencies found during the inspection of the regulated AST system and provide recommendations, including a proposed schedule for abating the deficiencies and including requirements for repairs, replacement or permanent removal from service of the AST, AST system or secondary containment system, until the tank or secondary containment is made fit for continued service. This documentation shall be attached to and submitted with the certification form.

5.2.b.5.E. No regulated AST that was determined to be Not Fit for Service may be returned to service until it has been certified by a Professional Engineer, an API certified inspector or a STI certified inspector as Fit for Service.

5.2.c. In certifying a regulated AST system, the certifying person shall, at a minimum, review all of the following items for each AST system:

5.2.c.1. AST design (determination that the AST meets design standards);

5.2.c.2. AST construction and installation, including but not limited to, assessments of foundation and compatibility of AST system with materials stored in the AST;

5.2.c.3. General maintenance of the AST system to include examination of the tank system exterior surfaces for signs of potential deterioration or degradation, such as flaws, areas of wear, corrosion, distortion, physical damage, discoloration, cracking, spidering, ultraviolet degradation or other conditions that might adversely affect structural integrity and checks of normal and emergency vents, where applicable, to ensure they are operating and free of restrictions;

5.2.c.4. Results of a leak test, internal inspection, ultrasonic test, or other tank integrity tests or examinations used to determine the suitability of the tank for continued use;

5.2.c.5. Corrosion Protection and Maintenance. – Existing and past corrosion protection measures taken to protect the integrity of the regulated AST system over its lifetime including, as applicable, assessment of the galvanic or impressed current systems, external coatings or liners;

5.2.c.6. Release detection method and procedures;

5.2.c.7. Release prevention methods and procedures;

5.2.c.8. Secondary containment structure and design assessment to ensure that the structure meets capacity requirements, including sufficient freeboard for precipitation events; the structure is compatible with the material that may be released into it; and determination of structural integrity or soundness; and

5.2.c.9. Record keeping for the leak detection system, corrosion protection system, and general operation and maintenance, including upgrades and repairs to the regulated AST system that could affect structural integrity.

5.2.d. A certifying person shall not certify a regulated AST system without having direct knowledge of the AST system inspection and records review, as applicable, or having made inquiry of those individuals immediately responsible for obtaining the information.

5.2.e. The owner or operator must immediately remove from service any regulated AST system or secondary containment structure that has been certified as Not Fit for Service. The tank owner or operator may request a waiver from the Secretary for good cause shown.

5.2.f. The AST owner or operator is responsible for the regulated AST System inspection and certification submitted on their behalf by others.

5.3 Internal Inspection Requirements.

5.3.a Formal internal inspection of regulated ASTs installed prior to June 12, 2015 shall be performed in general accordance with requirements of STI SP001 or API 653, as applicable to the AST being inspected, and at a minimum shall include evaluation of the following:

5.3.a.1. Tank bottom integrity;

5.3.a.2. Shell thickness;

5.3.a.3. Weld or seam integrity;

5.3.a.4. Condition of liner, if present; and

5.3.a.5. Overall fitness for service of the AST.

5.3.b. Formal internal inspections for new regulated ASTs subject to this Rule shall be performed at the following intervals:

5.3.b.1. The interval from when a tank is first placed into use to hold a liquid substance until the first internal inspection shall not exceed twenty (20) years for tanks without a Release Prevention Barrier or thirty (30) years with a Release Prevention Barrier; except~~,~~ ASTs of 30,000 gallons or less capacity are not required to have an internal inspection, provided that the AST remains compliant with subsections 10.1. (Spill and Overfill Protection) and 10.3. (Leak

Detection).

~~5.3.b.1.A. Level 1 ASTs that are 5,000 gallons or less in capacity and Level 2 ASTs that are 10,000 gallons or less are not required to have an internal inspection, provided that the AST and associated systems are properly operated, maintained, and the release detection is inspected and documented at least monthly; and~~

~~5.3.b.1.B. The AST is elevated and releases can be visually detected and secondary containment is provided that meets the requirements of subsection 10.2 of this Rule; or~~

~~5.3.b.1.C. The AST is installed with a release prevention barrier, it has a continuous release detection method (CRDM) inherent in its design, and it has secondary containment meeting the requirements of subsection 10.2 of this Rule; or~~

~~5.3.b.1.D. The AST is installed with a double bottom, it has a continuous release detection method (CRDM) inherent in its design, and it has secondary containment meeting the requirements of subsection 10.2 of this Rule; or~~

~~5.3.b.1.E. The AST is a double walled AST, it has a continuous release detection method (CRDM) inherent in its design, and it has secondary containment meeting the requirements of subsection 10.2 of this Rule.~~

5.3.b.2. Subsequent internal inspections required under paragraph 5.3.b.1 shall be performed, at a minimum, every twenty (20) years for tanks without a Release Prevention Barrier or thirty (30) years with a Release Prevention Barrier, unless findings from an inspection reveal that corrosion, deterioration or other specific conditions necessitate a more frequent internal inspection.

5.3.c. As an alternative to the aforementioned intervals for internal inspections, an owner or operator may choose to establish an initial or subsequent internal inspection schedule using the Risk Based Inspection (RBI) assessment methodology in API 653 and API RP 580.

5.3.c.1 The RBI assessment shall be performed by a person or persons who have inspection and engineering expertise and are knowledgeable in the proper application of API RP 580 principles, tank design, construction, and modes of deterioration.

5.3.c.2. An RBI assessment must be tank specific.

5.3.c.3. A person or persons having inspection and engineering expertise must determine the appropriateness of RBI assessments for the tank based upon the level of tank information available. The RBI assessment methodology may not be appropriate if a number of the "likelihood factors" and "consequence factors" described in API 653 and API RP 580 are unknown.

5.3.d. When an internal inspection is due for a regulated AST, it should be scheduled by the tank owner or operator to coincide with the annual inspection required by subsection 5.2

of this Rule in order to collect the maximum amount of data for determining fitness for service of the AST.

5.3.d.1. An internal inspection must be certified by a Professional Engineer, an API certified inspector, a STI certified inspector or by a person holding certification under another program approved by the secretary.

5.3.e. For an existing AST, if an internal inspection of the regulated AST has been conducted in accordance with the schedule recommended by its manufacturer or the American Petroleum Institute or Steel Tank Institute before the effective date of this rule, the internal inspection is acceptable, provided that:

5.3.e.1. The inspection, at a minimum, addresses the required items for assessment from subdivision 5.3.a; and

5.3.e.2. The last internal inspection was performed within the last thirty (30) years of the effective date of this Rule or an alternative time period that was previously determined through a RBI performed in accordance with API 653 and API 580.

5.3.e.3. The internal inspection is reviewed, approved, and certified by a Professional Engineer, an API certified inspector, a STI certified inspector or by a person holding certification under another program approved by the secretary.

5.3.f. If an existing regulated AST has not had an internal inspection, an internal inspection must be performed within:

5.3.f.1. One (1) year of the effective date of the Rule for tanks that are greater than seventy-five (75) years old;

5.3.f.2. Two (2) years of the effective date of the Rule for tanks that are between fifty (50) and seventy-five (75) years old;

5.3.f.3. Three (3) years of the effective date of the Rule for tanks that are between thirty (30) and forty-nine (49) years old;

5.3.f.4. The time intervals specified in paragraph 5.3.b.1 for tanks that are less than thirty (30) years old.

5.3.g. If an internal inspection determines that a regulated AST is not fit for service in its current state, the owner or operator shall:

5.3.g.1. Immediately remove the AST from active service;

5.3.g.2. Empty the AST;

5.3.g.3. Upgrade the AST to meet or exceed the minimum requirements for AST

system integrity and provide a certification that the AST has been made Fit for Service signed by a Professional Engineer, an API certified inspector, a STI certified inspector or by a person holding certification under another program approved by the secretary; or

5.3.g.4. Permanently properly close the AST.

5.4. Damaged Tanks.

5.4.a. An owner or operator shall ensure that a regulated AST system subjected to damage is evaluated by a Professional Engineer, an API certified inspector or a STI certified inspector to determine if the AST system is Fit for Service. Damage conditions include, but are not limited to the following;

5.4.a.1. Fire;

5.4.a.2. Natural disasters such as floods, derecho force winds, lighting strikes, seismic events, and tornados;

5.4.a.3. Excessive foundation settlement;

5.4.a.4 ASTs exposed to excessive internal pressure caused by overfill, failure of venting devices or other reasons;

5.4.a.5. AST systems damaged by vehicular traffic or heavy equipment; or

5.4.a.6. ASTs with evidence of cracks or cracking welds.

5.4.b After evaluation of a damaged regulated AST system, the Professional Engineer or API or STI certified inspector shall certify the tank as Fit for Service or Not Fit for Service.

5.4.b.1. The evaluation shall occur with ten (10) days of discovery of the damage for a Level 1 AST and within thirty (30) days of discovery for a Level 2 AST.

5.4.b.2. The tank owner or operator shall submit to the Secretary a copy of the certification for the damaged regulated AST system within thirty (30) days of completion of the evaluation.

5.5. Spill Prevention and Response Plan. – The owner or operator of all operational regulated ASTs shall have a written Spill Prevention Response Plan approved by the Secretary. Nonoperational tanks are not required to have a Spill Prevention Response Plan. The plan or corrections, modifications or updates to it shall be submitted in a manner prescribed by the Secretary. The plan shall be updated as required by this Rule, and a current copy of the plan shall be readily available at all times at the facility or at a central location, if the AST site is unmanned.

5.5.a. By December 9, 2015, owners or operators of an existing regulated aboveground storage tank facility shall submit a spill prevention and response plan or certification as provided

in paragraph 5.5.b.1 below for all regulated ASTs, unless the plan has already been submitted pursuant to the Interpretive Rule (47CSR62). The Spill Prevention and Response Plan shall at a minimum:

5.5.a.1. Be updated no less frequently than every five (5) years for Level 1 and Level 2 AST systems. ~~and no less frequently than every seven (7) years for Level 2 AST systems.~~ The owner or operator shall ensure that updated plans are submitted to the Secretary for review and approval in accordance with this schedule. Alternatively, the Secretary may develop a form or procedure to allow the tank owner or operator to certify that the previously approved plan was reviewed and no changes were necessary to update the plan.

5.5.a.2. Each owner or operator of a regulated aboveground storage tank with an approved Spill Prevention and Response Plan shall submit to the Secretary a revised plan or addendum within thirty (30) days if any of the following occur:

5.5.a.2.A. There is a major modification in design, construction, operation or maintenance of any regulated aboveground storage tank system or associated AST system equipment or there are other circumstances that increase the potential for fires, explosions or releases of fluids;

5.5.a.2.B. There is a major modification in emergency equipment at the facility;

5.5.a.2.C. There are substantial changes in emergency response protocols at the aboveground storage tank facility;

5.5.a.2.D. The plan fails in an emergency;

5.5.a.2.E. The removal or the addition of any regulated aboveground storage tank; or

5.5.a.2.F. Other circumstances occur about which the Secretary requests an update.

5.5.b. If the Plan is rejected, the Secretary will require modification as may be necessary and reasonable to protect human health or the environment and comply with the AST Act requirements. The owner or operator of the aboveground storage tank shall submit a revised plan in a manner prescribed by the Secretary for approval within thirty (30) days of receipt of notification of the Secretary's decision.

5.5.b.1. In lieu of a Spill Prevention and Response Plan developed in accordance with the requirements of W. Va. Code § 22-30-9, the owner or operator of a regulated aboveground storage tank may certify to the Secretary that the AST system is subject to:

5.5.b.1.A. A groundwater protection plan approved by the Secretary; or

5.5.b.1.B. A spill prevention control and countermeasures plan that complies with the requirements of 40 C. F. R. Part 112 or 35 C.S.R. 1, Miscellaneous Water Pollution Control Rules.

5.5.b.1.C. Those plans shall be made available for review or submitted in a manner prescribed by the Secretary upon request.

5.5.b.1.D. If the tank owner or operator is seeking to have its site-specific permits or plans amended to include conditions pertaining to the management and control of regulated tanks, then the tank owner or operator must submit documentation required by subsection 4.2 of this Rule and cannot certify the plan as described in paragraph 5.5.b.1 of this Rule.

5.5.b.2. The Secretary shall conduct an administrative review to determine if the Spill Prevention Response Plan meets the requirements of the AST Act and this Rule.

5.5.b.3. For those entities subject to site-specific permits or plans which seek to have their permits or plans amended to include conditions pertaining to the management and control of regulated tanks in lieu of adhering to the AST Rule, the Secretary shall perform a technical review of the Plan to ensure that the conditions in the Plan are protective of human health and the environment and are consistent with specific permit conditions as applicable.

5.5.c. The Spill Prevention Response Plan shall specifically address the following elements, at a minimum:

5.5.c.1. Describe the activity that occurs at the site and provide an inventory of the types and amounts of fluids stored in regulated aboveground storage tanks at the facility. The plan shall provide a reference to the location of the safety data sheets (SDS) required by the Occupational Safety and Health Administration for all fluids stored in regulated aboveground storage tanks at the facility. A single plan may be submitted to address multiple tanks located at a facility.

5.5.c.2. Identify all facility-related positions with duties and responsibilities for overseeing the implementation of the facility's plan and list all facility emergency coordinators;

5.5.c.3. Describe the preventive maintenance program, monitoring and inspection procedures, and employee training programs;

5.5.c.4. Describe the general release response procedures that the aboveground storage tank facility and contract emergency personnel shall employ upon the occurrence of any release;

5.5.c.5. Provide contact information for the State, county, and municipal emergency management agencies and the nearest downstream public water supply intake and designate the person or persons to be notified in the event of a release from a regulated aboveground storage tank that could reach waters of the State; and

5.5.c.6. Provide the Secretary with any other information that he or she may reasonably request.

5.5.c.7. For those entities subject to site-specific permits and plans who seek to have their permits or plans amended to include conditions pertaining to the management and control of regulated tanks in lieu of adhering to the AST Rule, they shall provide the specific details required in paragraph 4.2.a.2 of this Rule in their SPRP, SPCC or GPP.

5.5.d. The owner or operator of a regulated aboveground storage tank located in a zone of critical concern shall annually obtain and annually update the contact information required under paragraph 5.5.c.5 of this Rule.

5.5.d.1. The owner or operator shall ensure that the updated contact information is readily available in case of an emergency at the facility.

5.5.d.2. The update to contact information alone does not require a resubmittal of the Spill Prevention Response Plan for approval by the Secretary.

5.5.e. Nothing contained in this subsection relieves the owner or operator of an aboveground storage tank from his or her obligation to immediately report any confirmed ~~reportable~~ release from an AST to the Department's emergency notification telephone number (1.800.642.3074).

5.6. Labeling and Signage Requirements for ASTs. – The owner or operator shall ensure that all aboveground tank systems are labeled or marked in accordance with the AST Act.

5.6.a. At a minimum, the following information shall be labeled or otherwise marked on all ASTs or signs ~~next to~~ near the ASTs that have not undergone permanent closure:

5.6.a.1. Tank registration number;

5.6.a.2. Owner or operator emergency contact number; and

5.6.a.3. DEP Spill Reporting Hotline number (1.800.642.3074).

5.6.b. Tank labels or markings shall be placed at least three feet above ground level, clearly visible and legible from a public roadway, public right-of-way or from outside the containment area. The requirements for AST signage are:

5.6.b.1. Letter size shall be at least one and one-half inches (1½"). Larger letter size ~~may be appropriate~~ is permissible in order for the information to be legible at a distance.

5.6.b.2. High contrast colors must be used.

5.6.b.3. Signs, if used, must be at least 18 inches ~~two feet~~ by twenty four inches ~~o feet (2' x 2'~~18" x 24").

5.6.b.4. Labels or marking shall be kept clearly visible and legible at all times.

5.6.c. The owner or operator shall be capable of readily identifying the substances transferred in the regulated piping system and be able to determine flow control points, including pumps, valves, and dispensers up to the first point of isolation through labeling or other suitable means.

5.6.d. ASTs that have undergone permanent closure and left onsite shall be labeled or marked in accordance with requirements of subdivision 5.6.b. with the date of closure and the words "Permanently Closed".

5.7. Security Requirements for Regulated ASTs. – Owners or operators are responsible to assure that appropriate security measures and procedures based on the facility location are established and implemented to protect the environment and human health and safety. These security measures and procedures may include, but are not limited to, monitoring, fencing, lighting, access control, locked entrances, and securing of valves and dispensers.

§47-63-6. Reporting and Recordkeeping Requirements

6.1 Owners or operators of regulated AST systems must cooperate fully with inspections, monitoring, and testing conducted by the Secretary, as well as requests for document submission for AST testing, monitoring results, AST system records, and other AST system related documentation or information requested by the Secretary that may be needed to determine compliance with applicable requirements.

6.1.a. Owners or operators must maintain, at a minimum, the following records and make them readily available to the Secretary upon request:

6.1.a.1. Proof of financial responsibility for taking corrective actions for each regulated AST system.

6.1.a.2. The current leak detection records for each regulated AST system. At a minimum, twelve (12) continuous months of leak detection records must be maintained at the facility, or an alternative location, and readily available for review.

6.1.a.3. Appropriate documentation that each regulated AST system is properly protected from corrosion. This documentation should include, but is not limited to, information on protective coatings, AST construction utilizing materials that are not subject to corrosion or cathodic protection test, as applicable.

6.1.a.4. Documentation that reasonably establishes substances currently stored in each regulated AST system are compatible with all AST system components.

6.1.a.5. Documentation that the secondary containment system has been checked as required by subdivision 5.1.a of this Rule. At a minimum, twelve (12) continuous months of

checks of the secondary containment records must be maintained by the owner or operator and readily available for review.

6.1.a.6. A copy of the annual certification and associated inspection that each regulated AST system is either Fit for Service or Not Fit for Service.

6.1.a.7. Any internal inspections that are performed on the regulated AST.

6.1.a.8. Documentation of the regulated AST system repairs performed.

6.1.a.9. Original installation and modification of tank system design specifications, including applicable manufacturer's documentation for the tank system and any regulated ancillary equipment.

6.1.a.10. Floor and wall or shell thickness measurements for regulated metallic ASTs shall be kept on file by the owner or operator for the life of the AST and shall be made available to the Secretary upon request.

6.1.a.11. All manufacturer's instructions, performance claims, and their manner of determination described in writing by the equipment manufacturer or installer shall be retained by the owner or operator for the life of the regulated AST and made available to the Secretary upon request.

6.1.a.12. A properly completed closure report and results of the site assessment conducted at permanent closure or change-in-service, when applicable.

6.1.b. Owners or operators must maintain records and keep them available either:

6.1.b.1. At the AST facility and immediately available for inspection by the Secretary upon request; or

6.1.b.2. At a readily available alternative site and be provided for inspection to the Secretary upon request;

6.1.b.3. In the case of permanent closure records, owners or operators are also provided with the additional alternative of mailing closure records to the Secretary, if they cannot be maintained at a closed facility or an alternative site as indicated above.

6.2. Reporting of Confirmed, Threatened or Suspected Releases.

6.2.a. Upon the occurrence of a confirmed release from an aboveground storage tank system, the owner or operator shall immediately notify the county or municipal emergency management agencies in the county where the AST is located and the Department's emergency notification telephone number (1.800.642.3074).

6.2.b. Upon the occurrence of a suspected or threatened release, owners or operators of AST systems must report the suspected or threatened release to the Department within twenty-four (24) hours, unless the owner or operator is able to determine within that time period that the suspected or threatened release was actually a false alarm. The procedures in subsection 6.3 of this Rule shall be followed for any of the following suspected or threatened release conditions:

6.2.b.1. Unusual operating conditions observed by owners or operators (such as, but not limited to, the erratic behavior of product dispensing equipment, the sudden loss of product from the regulated AST system, discovery of holes in a storage tank or piping or the unexplained presence of water in the tank), unless system equipment is found to be defective but not leaking and is immediately repaired or replaced; and

6.2.b.2. Testing, sampling, inspection or monitoring results from a release detection method which indicate a release may have occurred, unless the monitoring device is found to be defective and is immediately repaired, recalibrated or replaced and additional monitoring or testing does not confirm the initial result; and

6.2.b.3. Weakening of regulated AST system equipment (such as, but not limited to, swelling of piping, thinning of AST structural material below the minimum design standard or cracks in welds or steel plates) that pose an imminent threat of failure, unless the owner or operator takes immediate action to repair or replace the equipment or immediately remove substances from the AST system to prevent a release.

6.2.c. Immediately upon determination that a suspected or threatened release is a confirmed release, the owner or operator shall immediately report the confirmed release to the Department in accordance with subdivision 6.2.a. of this Rule and follow the procedures outlined in Section 7 of this Rule.

6.2.d. No person shall knowingly allow any unintentional release from an AST to continue without taking immediate actions to mitigate the release. Owners or operators shall take immediate action to contain any release so as to minimize the impact to human health and safety or the environment.

6.2.e. Actions to prevent a reoccurrence of a release and the actions to mitigate future releases shall be initiated immediately by the owner or operator.

6.2.f. When required by the Secretary, owners or operators of AST systems must follow the procedures in subsection 6.3 or section 7 of this Rule, as appropriate, to determine if the AST system is the source of off-site impacts. These impacts may include the discovery of substances (such as the presence of free product or vapors in soils, basements, sewer and utility lines or waters of the State) that has been observed by the Department or brought to its attention by another party.

6.3. Release Investigation and Confirmation Steps

6.3.a. After the notification required by subsection 6.2 above, unless corrective action is

initiated in accordance with section 7 of this Rule, owners or operators must immediately investigate all suspected or threatened releases of substances from the AST system and provide findings to the Secretary within seven (7) days for Level 1 ASTs and within fourteen (14) days for Level 2 ASTs. An extension of the reporting period may be allowed by the Secretary for good cause shown.

6.3.b. The suspected or threatened release investigation shall include a sufficient number of the procedures outlined in this subsection and be sufficiently detailed to confirm whether a release of a substance has occurred or not. The owner or operator shall investigate and fully document the indication of a release by one or more of the following procedures:

6.3.b.1. A check of product dispensing or other similar equipment;

6.3.b.2. A check of release detection monitoring devices;

6.3.b.3. A check of inventory records to detect discrepancies;

6.3.b.4. A visual inspection of the storage tank and the area immediately surrounding the storage tank;

6.3.b.5. Testing of the storage tank for tightness or structural soundness;

6.3.b.6. Testing of the piping for tightness;

6.3.b.7. Sampling and analysis of soil, surface water or groundwater. Owners or 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, the type of initial indication of contamination, type of backfill and soil, the depth of groundwater, proximity of surface water, and other factors appropriate for identifying the presence and source of the release shall be considered; or

6.3.b.8. Other investigation procedures which may be necessary to determine whether a release from the AST system has occurred.

6.3.c. If the investigation confirms that a release has occurred, the owner or operator shall immediately report the confirmed release to the Secretary and initiate corrective action.

6.3.d. If the investigation confirms that a release has not occurred, further investigation by the owner or operator is not required.

§47-63-7. Corrective Action

7.1 Owners and operators of ASTs must, in response to any confirmed release or threatened release from an AST, comply with the requirements of this section unless directed otherwise by the Secretary.

7.1a Secretary Authority to Assume Control of Releases

7.1.a.1 The Secretary reserves the right to assume control of any release or threatened release from an AST to address threats to human health, safety, water resources or the environment when the Secretary makes one of the findings set forth in W. Va. Code § 22-30-8(c). In such cases, all liability, including payment to the Department of response costs, will remain with the owner or operator and its guarantors in accordance with W. Va. Code §§ 22-30-8(e) and (f).

7.1.a.2 To protect human health, safety, and the environment, the Secretary reserves the right for the Department or its contractors to enter and take appropriate actions on affected properties to investigate, abate, and remediate contamination as provided in W. Va. Code § 22-30-8.

7.2 Initial Release Response Requirements

7.2.a. In response to a confirmed release from an AST, owners or operators shall promptly take the following steps to prevent or address an immediate threat to human health or the environment while at the same time initiating, as necessary, one or more of the tasks identified in subsection 7.4:

7.2.a.1 If a faulty AST component is determined to be the cause of a release, take the component or, if necessary, the entire AST system out of service and remove all substance contained in the AST or AST compartment to prevent further release to the environment. The faulty AST shall not be returned to service until the AST ~~meets the~~ is certified as Fit for Service ~~requirements~~ following the procedures outlined in subsection 5.2 .b-e of this rule. ~~as certified by a qualified person.~~

7.2.a.2 Determine an estimate of the amount and type of substance released.

7.2.a.3 Identify and sample affected water supplies and water supplies with the potential to be affected in a reasonable and systematic manner, in accordance with subdivision 7.3.a.

7.2.a.4 Contain the release:

7.2.a.5 Identify, mitigate, and continue to monitor and mitigate fire, explosion, and safety hazards posed by vapors and free product.

7.2.a.6 If non-aqueous phase liquids (NAPL) are present, owners or operators shall formulate a NAPL Conceptual Site Model (NCSM) to determine the most efficient and environmentally protective remedial approach for addressing the release. NAPL shall be removed and remediated to the maximum extent practicable.

7.2.a.7 If contaminated soil exists at the site, the interim remedial action may include excavation of the soils for treatment or disposal. Soils may be stored on site temporarily, in accordance with subsection 7.6.

7.2.a.8 At sites where free product recovery, ~~regulated~~ substance removal or contaminated soil excavation is performed, owners and operators must:

7.2.a.8.A Conduct recovery, removal, storage, treatment, and disposal activities in a manner that prevents the spread of contamination into previously uncontaminated areas.

7.2.a.8.B Minimize the amount of soil and subsurface material affected by a release of a ~~regulated~~ substance by segregating the unaffected soil and subsurface material from the material affected by a release of a regulated substance.

7.2.a.8.C Obtain required State and local permits or approvals for treatment and disposal activities.

7.2.a.8.D Where soil and subsurface material affected by a release are removed from the site, the person removing the material shall provide a receipt documenting acceptance of the material at a permitted treatment or disposal facility to the owner or operator. In the case that the owner or operator is not the landowner, and the landowner requests a receipt, a receipt must be provided to the landowner.

7.3 Affected or Diminished Water Supplies

7.3.a Where the Secretary determines that a public water supply is affected or diminished or potentially affected or diminished due to a release from a regulated AST, sampling shall be done in cooperation and coordination with the public water supplier, the Secretary, and the West Virginia Bureau of Public Health. Where a private water supply is affected or diminished or potentially affected or diminished due to a release, sampling shall be coordinated with the private supply owner(s) and the Secretary. A copy of the sample results shall be provided to the water supplier or supply owner and the Secretary within five (5) days of receipt of the sample results from the laboratory. A water supply affected or diminished by the release shall be restored or replaced with an alternate water supply in accordance with this subsection and in coordination with the water supplier or water supply owner and the Department.

7.3.b Owners or operators who affect or diminish a water supply as a result of a release shall restore the water supply to pre-release condition or replace the affected or diminished supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply at no cost to the public water supplier or owner of the affected or diminished water supply.

7.3.b.1. A temporary water supply shall be provided as soon as practicable but not later than forty-eight (48) hours after one of the following:

7.3.b.1.A The owner or operator receives information which establishes that the release has affected or diminished the water supply.

7.3.b.1.B The owner or operator is notified by the Secretary that the release has affected or diminished the water supply.

7.3.b.2 A permanent water supply shall be provided within ninety (90) days, or within an alternative timeframe as determined by the Secretary, after one of the following:

7.3.b.2.A The owner or operator receives information which establishes that the release has affected or diminished the water supply.

7.3.b.2.B The owner or operator is notified by the Secretary that the release has affected or diminished the water supply.

7.3.b.3 The total time for providing a permanent water supply may not exceed two (2) years. ~~When owners or operators restore or replace an affected or diminished public water supply by providing access to a public water system, the owners or operators will not be required to pay for the quantity of water supplied to existing customers of the public water system being replaced. When owners and operators restore or replace an affected or diminished private water supply by providing access to a public water system, the owners or operators shall pay for the quantity of water supplied for a period of no less than three (3) years.~~

7.4 Site Characterization Requirements

7.4.a Upon confirming that a release has occurred or upon notification by the Department that a release has been confirmed, unless directed otherwise by the Secretary, owners or operators shall perform site characterization to:

7.4.a.1 Determine whether additional initial response actions are necessary to abate an imminent hazard to human health or the environment.

7.4.a.2 Determine whether additional site investigation work is required upon completion of initial response actions that may have been implemented.

7.4.a.3 Provide sufficient information to allow for completion of a corrective action plan (CAP) based on the site characterization results.

7.4.b Site characterization shall include the following activities, as necessary, based on the nature, extent, type, volume or complexity of the release:

7.4.b.1 Assess the physical characteristics of the site as appropriate to the nature of the release in consultation with the Secretary.

7.4.b.2 Determine the nature of the release and extent of contamination.

7.4.b.3 Evaluate the condition of the ASTs.

7.4.b.4 Develop a conceptual site model that describes the sources of contamination, fate and transport of contaminants, and potential receptors.

7.4.b.5 Prepare and implement site-specific plans for worker health and safety; identification, management, and disposition of wastes generated; and quality assurance/quality control during site characterization activities.

7.4.c Site Characterization Report

7.4.c.1 Owners or operators shall prepare and submit to the Secretary within 120 days of reporting a confirmed release, or within an alternative timeframe as determined by the Secretary, two (2) hard copies and one (1) electronic copy of a site characterization report which describes the activities undertaken in accordance with this section. The site characterization report shall be prepared in accordance to guidance provided by the Office of Environmental Remediation and include the following:

7.4.c.1.A Site Description;

7.4.c.1.B Contaminant Information;

7.4.c.1.C AST System Information;

7.4.c.1.D Initial Response Actions Performed;

7.4.c.1.E Site Specific Plans Prepared and Implemented;

7.4.c.1.F Methods and Results of Investigation; and

7.4.c.1.G Conclusions and Recommendations.

7.4.d If owners or operators determine, after completion of initial response or interim actions, that further site characterization is not required, that soil is the only media of concern, and that these actions have remediated the site, owners or operators may submit a site characterization report to the Secretary that contains the following elements, in lieu of the elements required in subdivision 7.4.c:

7.4.d.1 A concise statement that describes the release, including information such as the amount of the substance that was released, the extent of contamination, and initial release response or interim remedial actions taken pursuant to subsection 7.2.

7.4.d.2 Data demonstrating that the initial release response or interim remedial actions have attained the standard for the site as determined based on the nature of the substance released, as well as standards as set forth in the Water Pollution Control Act, W. Va. Code § 22-11-1, et seq.; the Groundwater Protection Act, W. Va. Code § 22-12-1, et seq.; the Solid Waste

Management Act, W. Va. Code § 22-15-1, et seq.; or the Hazardous Waste Management Act, W. Va. Code § 22-18-1, et seq. and the rules promulgated thereunder.

7.4.d.3 Additional information as necessary to fully describe the release, the extent of contamination, and the interim remedial actions taken to address the release.

7.4.e Following submission and review of a complete site characterization report, the Secretary may:

7.4.e.1 Approve the site characterization report as submitted;

7.4.e.2 Require additional information or clarification from the owners or operators; or

7.4.e.3 Disapprove the site characterization report, citing deficiencies, and direct, require or order the owners or operators to perform other tasks or make modifications as necessary to meet the requirements of this section of the rule.

7.4.f At any point after reviewing the information contained in the site characterization report, the Secretary may require the owners and operators to submit additional information or to develop and submit a corrective action plan to address contaminated soils, groundwater or surface water. Additional investigation information or corrective action ~~work~~ plans requested by the Secretary shall be submitted within ninety (90) days or within an alternative time frame approved by the Secretary upon request by the owner or operator and for good cause shown.

7.4.g If data can justify site closure, owners or operators may request site closure in accordance with the requirements of subsection 7.8. Corrective action will be considered complete only upon the Secretary's evaluation and approval of a satisfactory request that no further action be taken.

7.5 Corrective Action Plan Requirements

7.5.a. The Secretary may waive the requirement of an investigation under subsection 7.4 when owners or operators have taken the appropriate initial response steps to eliminate imminent dangers and to prevent any further release, and the owners or operators choose to submit a corrective action plan (CAP) to remediate contaminated soil, groundwater or surface water.

7.5.b. Owners or operators may, in the interest of minimizing environmental contamination and promoting more effective corrective action, begin remediation of contaminated soil, groundwater or surface water before the CAP is approved, provided that they:

7.5.b.1 Notify the Secretary of their intention to begin remediation;

7.5.b.2 Comply with any conditions imposed by the Secretary, including halting remediation or mitigating adverse consequences from cleanup activities;

7.5.b.3 Incorporate these self-initiated remediation measures in the CAP that is submitted to the Secretary for approval; and

7.5.b.4 Recognize that any actions they take without prior approval by the Secretary is at the risk of the owners or operators and do not absolve them of the obligation to comply with the corrective action requirements of this section.

7.5.c The CAP shall:

7.5.c.1 Address the contamination of soils, groundwater, and surface water; vapor intrusion concerns; all occurrences of NAPL resulting from a release; and impacts or potential impacts to water supplies.

7.5.c.2 Provide for adequate protection of human health, safety, water resources, and the environment.

7.5.c.3 Be of specific design and based on the results of the hydrogeologic investigation or contain appropriate investigatory steps if submitted without a prior hydrogeologic investigation having been completed.

7.5.c.4 Include sufficient design information to demonstrate that the remedial technology meets the cleanup goals approved by the Secretary.

7.5.d The CAP may propose a phased approach to site remediation.

7.5.e Corrective Action Plan

7.5.e.1 Owners and operators shall prepare and submit to the Secretary within ninety (90) days of the approval of a site characterization report, or within an alternative timeframe as determined by the Secretary, two (2) hard copies and one (1) electronic copy of a CAP. The CAP shall be prepared in accordance with guidance provided by the Department's Office of Environmental Remediation, submitted in a report form, and contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:

7.5.e.1.A A brief summary of the site characterization report conclusions.

7.5.e.1.B A summary of past efforts and a description of any new or continued efforts to effectively remove NAPL where NAPL is present.

7.5.e.1.C Cleanup goals for the site.

7.5.e.1.D A proposed corrective action method for the site that will:

7.5.e.1.D.1. Reduce contaminant levels at the site to meet the cleanup goals proposed in the CAP and approved by the Secretary; or

7.5.e.1.D.2. Reduce contaminant levels to achieve the cleanup goals established by the Secretary.

7.5.e.1.E The results of treatability, bench scale or pilot scale studies or other data collected to support the remedial action.

7.5.e.1.F A discussion of how the remedial action will attain the remediation standard for the site.

7.5.e.1.G Design and construction details for the remedial action, including expected effectiveness.

7.5.e.1.H Operation and maintenance details for the corrective action.

7.5.e.1.I A list of required federal, State, and local permits or approvals to conduct the remedial action.

7.5.e.1.J A site map showing the location of buildings, roads, property boundaries, remedial equipment locations, and other information pertinent to the remedial action.

7.5.e.1.K A description of the media and parameters to be monitored or sampled during the remedial action.

7.5.e.1.L A description of the analytical methods to be utilized and an appropriate reference for each.

7.5.e.1.M A description of the methodology for post-remediation monitoring that will be utilized to demonstrate attainment of the remediation standard.

7.5.e.1.N A description of additional items necessary to develop the CAP.

7.5.e.1.O Copies of the site-specific plans for worker health and safety; identification, management, and disposition of wastes generated; and quality assurance/quality control during implementation of the CAP.

7.5.f The Secretary shall approve the CAP when satisfied that implementation of the CAP provides for measures considered adequate to protect human health, safety, water resources, and the environment.

7.5.f.1 Upon approval of the CAP by the Secretary, owners or operators shall implement the CAP, including any modifications to the CAP, according to the schedule contained therein.

7.5.f.1.A Owners or operators must notify the Secretary in writing of any proposed changes to the schedule.

7.5.g ~~Remedial~~ Corrective Action Progress Reports

7.5.g.1 During implementation of the CAP, remedial action progress reports shall be submitted to the Secretary quarterly or at an alternative interval as determined by the Secretary upon request and for good cause shown. Each corrective action progress report shall provide the data generated during the reporting period and shall show the progress to date toward attainment of the remediation standard. Corrective action progress reports shall be prepared in accordance to the guidance provided by the Office of Environmental Remediation and shall contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:

7.5.g.1.A A summary of site operations and remedial progress made during the reporting period.

7.5.g.1.B Quantitative analytical results from media sampling, including laboratory reports and tables summarizing cumulative data.

7.5.g.1.C Sufficient information from monitoring data to establish whether the plume is stable, shrinking or expanding.

7.5.g.1.D Reporting period and cumulative amounts of free product recovered, groundwater treated, and soil and sediment treated or disposed.

7.5.g.1.E Treatment and disposal documentation for waste generated during the reporting period.

7.5.g.1.F Recommendations for optimization and improvement as needed to achieve the cleanup goals established in the CAP.

7.5.g.2 The first corrective action progress report shall be submitted to the Secretary within 120 days following the date of CAP implementation. Subsequent reports shall be submitted within thirty (30) days of the end of the quarterly monitoring period. Owners or operators shall submit two (2) hard copies and one (1) electronic copy of each progress report.

7.5.g.3 The final corrective action progress report shall be submitted to the Secretary as part of a corrective action completion report.

7.5.g.4 At least once per twelve (12) month period, the corrective action progress report shall include an evaluation of the effectiveness of the corrective action to determine whether additional measures must be implemented to meet the cleanup goals established in the CAP. The evaluation shall include an estimate of time to corrective action completion.

7.5.g.5. Should the evaluation indicate the corrective action is no longer effective, or the Secretary notifies the owner or operator that the remedy is no longer effective, the owner or operator shall submit a revised CAP to propose a more effective remedy.

7.5.h. If, during implementation of the CAP, the owner or operator decides to change the CAP, the owner or operator shall prepare and submit to the Secretary a new or modified CAP for approval.

7.5.i. If, during implementation of the CAP, the owner or operator determines that continued implementation of the CAP will cause additional environmental harm, the owner or operator shall suspend corrective action and notify the Secretary within twenty-four (24) hours of suspension. The owner or operator shall prepare and submit a new or modified CAP in accordance with this subsection within ninety (90) days.

7.5.j. If the Secretary determines that the implementation of corrective actions are not achieving adequate protection of human health or the environment, the Secretary may require additional responses to be taken.

7.5.k. Upon completion of corrective action activities, the owner or operator shall perform four (4) consecutive quarters of groundwater sampling and surface water sampling, or other sampling schedule as approved by the Secretary, to ensure the remediation standard has been met.

7.6 Onsite Storage of Contaminated Soil

7.6.a Onsite storage of contaminated soil is prohibited unless performed in accordance with this subsection of the Rule and all other applicable federal, State, and local regulations. The owner or operator must notify the Secretary of its intent to temporarily store contaminated soils at the site and submit a brief written plan to the Secretary prior to storing any soils.

7.6.b Onsite storage of contaminated soil may be performed if the soil does not present a threat to human health, safety, water resources or the environment and one of the following applies:

7.6.b.1 Soil excavation is necessary to perform a removal from service.

7.6.b.2 Soil excavation is performed as part of an interim remedial action.

7.6.b.3 Soil excavation is performed as part of remedial action.

7.6.c Where excavated contaminated soil is stored onsite in accordance with subdivision 7.6.b, the excavated soil shall be disposed of or active treatment of the excavated soil shall be initiated within ninety (90) days from the first day of storage or within an alternative timeframe authorized by the Secretary in writing upon request of the owner or operator and for good cause shown.

7.6.d If contaminated soil is stored onsite, the owner or operator shall manage the soil in accordance with applicable federal regulations, legislative rules, and Departmental policies relating to solid and hazardous wastes. In addition to these requirements, unless otherwise specified in applicable federal regulations, legislative rules or Departmental policies, contaminated soil shall be completely and securely covered for the duration of the storage period with an impermeable material of sufficient strength, thickness, anchoring or weighting to prevent tearing or lifting of the cover, infiltration of precipitation or surface water, discharge of any leachate, exposure of the soil to the atmosphere, and runoff. Contaminated soil shall not be stored in such proximity to adjacent properties, public areas or residences as to cause nuisance odor. Appropriate steps shall be taken to deter public access to the storage area, which steps may include fencing or similar barriers, security patrols or warning signs.

7.6.e The Secretary may require immediate removal of contaminated soil if the soil is not being properly stored or managed in accordance with subdivisions 7.6.c. or 7.6.d. above or if the Secretary determines that storage poses a threat to human health, safety, water resources or the environment.

7.7 No Further Action

7.7.a Request for No Further Action Determination

7.7.a.1 After all remedial action goals have been achieved, the owner or operator shall submit a written request to the Secretary for no further action (NFA) status. NFA documentation shall include, but not be limited to, the following:

7.7.a.1.A A demonstration that the site does not threaten human health, safety, water resources or the environment based on current conditions at the site and surrounding areas.

7.7.a.1.B A demonstration that NAPL has been addressed in accordance with subsection 7.~~3~~5.c.1.

7.7.a.1.C A demonstration that all contaminated soils previously stored at the site have been properly disposed in accordance with subsections 7.2 and 7.6~~7~~.

7.7.a.1.D Copies of all documents, permits, certificates, approvals, etc. relating to the transportation of impacted environmental media and materials from the site, including ASTs, the substances contained in the ASTs, soils, and water, that have not been previously submitted to the Secretary. Documentation shall include tipping fees, waste receipts, bills of lading or any other documentation verifying that all waste has been properly disposed.

7.7.b The Secretary shall issue a letter requiring NFA and documenting that site cleanup objectives have been met. The NFA letter does not absolve the owner or operator from previously incurred or potential future liability.

7.7.c The NFA letter applies to known site conditions at the time that the NFA request is made. If the risk posed by the site changes in the future or the presence of contamination related to the release in question is discovered at a later date, the Secretary reserves the right to reopen the release case and require the owner or operator to perform additional investigation and remediation to eliminate the risk to human health, safety, water resources or the environment.

7.8 Alternative Corrective Action

7.8.a The owner or operator has the option to remediate releases from ASTs to risk-based standards through the Voluntary Remediation and Redevelopment Program (VRRP) as authorized by the Voluntary Remediation and Redevelopment Act, W. Va. Code § 22-22-1, et seq., and the Voluntary Remediation and Redevelopment Rule (60 C.S.R.3). If the owner or operator chooses this option, it shall inform the Secretary in writing and make application to the VRRP within thirty (30) days of the notification. Subsequent corrective action activities will be governed by the requirements of the Act and its associated legislative rule until a Certificate of Completion is issued, or until either party (the owner or operator or the Secretary) withdraws from the voluntary remediation agreement. If remediation is not completed under the VRRP, the owner or operator must meet the requirements of this section of this Rule.

7.9 Violations. – Owners and operators who fail to comply with the requirements for investigation and corrective action of releases from ASTs shall be subject to the enforcement provisions of W. Va. Code § 22-30-17.

§47-63-8. AST Design, Construction, and Installation.

8.1 Performance standards for regulated aboveground storage tanks

8.1.a. New regulated aboveground storage tank systems shall be constructed and installed in accordance with manufacturer's or fabricator's specifications and with applicable industry standards or codes of practice (relating to new aboveground tank installations and reconstructions) and requirements of this Rule.

8.1.b. Regulated aboveground storage tank system modifications or upgrades shall be performed in accordance with manufacturer's or fabricator's specifications and with applicable industry standards or codes of practice and requirements of this Rule.

8.1.c. In the absence of such standards or codes, construction, installation, modifications or upgrades shall be performed in accordance with the manufacturer's or fabricator's recommendations and utilizing good engineering practices.

8.1.d. Underground storage tanks shall not be used as an AST unless the manufacturer has certified that the tank was also designed for use as an AST.

8.2 New regulated AST ~~aboveground tank~~ installations and reconstructions.

8.2.a. The owner or operator shall ensure that all regulated tanks installed at facilities

have been designed, constructed, and installed according to the manufacturer's or fabricator's instructions, this Rule, industry standards, and in accordance with the appropriate, most current Code of Practice developed by nationally recognized associations such as API, ASME, NACE, NFPA, PEI, STI or UL following applicable engineering specifications. An owner or operator must keep documentation for new tanks in the form of a label on the tank, certificate from the manufacturer, documentation on or attached to an invoice describing the tank's construction or any other method accepted by the Secretary.

8.2.b. A regulated AST must have a stable foundation, capable of supporting the total weight of the tank when full of product without movement, rolling or unacceptable settling:

8.2.b.1. The foundation design and construction must be based on sound engineering practices.

8.2.b.2. The foundation must minimize corrosion of the tank bottom and meet or exceed the specifications of the tank manufacturer.

8.2.b.3. The foundation design shall provide positive drainage of water away from the base.

8.2.b.4. Aboveground storage tanks located in areas subject to flooding must be protected from floatation.

8.2.c. Regulated aboveground storage tanks shall be tested for tightness at installation and reconstruction in accordance with industry standards and current Codes of Practice developed by nationally recognized associations and manufacturer's specifications:

8.2.c.1. If a pneumatic test is used for manufactured (shop fabricated) tanks, the fittings, welds, joints, and connections shall be coated with a soap solution and checked for leaks.

8.2.c.2. Aboveground field-erected storage tanks shall be hydrostatically tested.

8.2.c.3. Deficiencies shall be remedied prior to tanks being placed into service.

8.2.c.4. Hydrostatic test fluids shall be discharged or disposed of in accordance with State and federal requirements.

8.2.c.5. If testing is done with a vacuum on the interstice of a double wall or double bottom aboveground tank, the vacuum must remain on the tank until it is set in place where it is to be permanently installed. The vacuum must remain above the minimum level set by the tank manufacturer

8.2.c.6. Testing performed in accordance with Section 8.2.c.1 through 8.2.c.5 shall be documented by the tester and testing documents must be retained by the owner or operator.

8.2.d. Reconstruction of regulated aboveground storage tanks must follow the current Codes of Practice developed by a nationally recognized association and be accomplished in accordance with sound engineering practices.

8.2.d.1 Reconstructed regulated aboveground storage tanks must be inspected and hydrostatically tested before being placed into service. Double wall and double bottom tanks may be tested using a vacuum method.

8.2.d.2. Hydrostatic test fluids shall be discharged or disposed of in accordance with State and federal requirements.

8.2.e. The owners or operator shall ensure that regulated mobile aboveground storage tanks that are relocated to another facility are checked by a qualified person before being placed into service to ensure that no damage to the tank occurred during transportation or installation at the new site. Documentation of the checks must be maintained for two (2) years and made available to the Secretary for inspection upon request.

8.2.e.1. The owner or operator shall ensure that any regulated mobile aboveground storage tank that has been damaged in the transportation or installation is inspected for fitness for service prior to placing the tank into service.

8.2.e.2. The owner or operator shall ensure that ASTs are empty prior to relocation.

8.2.e.3. Regulated mobile tanks that are relocated from facility to facility are not subject to the installation documentation requirements of subdivision 8.2.f of this Rule, but remain subject to the registration amendment requirements of subdivision 3.1.d of this Rule.

8.2.e.4. Regulated mobile tanks that are made stationary tanks are subject to the installation documentation requirements of subdivision 8.2.f of this Rule.

~~8.2.f. The tank owner or operator must submit to the Secretary documentation of new construction design criteria and engineering specifications approved by a professional engineer or by an individual certified by API or STI to perform installations or by a person holding certification under another program approved by the Secretary.~~

~~8.2.f.1. The installation documentation must be submitted for review at least thirty (30) days prior to the new regulated AST system construction or relocation of a stationary AST system.~~

~~8.2.f.2. A review of the installation paperwork will be performed by the Secretary to ensure compliance with the regulatory requirements for regulated AST system installations and relocations.~~

~~8.2.f.3. If deficiencies are noted in the installation paperwork, the owner or operator will need to address the deficiencies noted by the Secretary prior to performing installation of a regulated AST system.~~

8.2.g. All regulated AST system components, including piping and ancillary equipment up to the first point of isolation, installed after the effective date of this Rule shall have baseline data including:

8.2.g.1. Floor and wall or shell thickness measurements for regulated metallic ASTs shall be kept on file by the owner or operator for the life of the AST and shall be made available to the Secretary upon request.

8.2.g.2. Material certifications shall be kept on file by the owner or operator for the life of the AST and shall be made available to the Secretary upon request.

8.2.g.3. All manufacturer's instructions and performance claims and their manner of determination described in writing by the equipment manufacturer or installer shall be retained by the owner or operator for the life of the regulated AST and made available to the Secretary upon request.

8.2.h. All regulated metallic ASTs installed after the effective date of this Rule that have tank bottoms in contact with soil or an electrolyte including, but not limited to, water, shall be protected from corrosion in accordance with section 9 of this Rule.

8.2.i. All new Level 1 ASTs installed after the effective date of this Rule shall be double walled, double bottomed or 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 a released substance. The following are acceptable Release Prevention Barriers:

8.2.i.1. An impervious soil layer or geosynthetic clay liner with a permeability of 10^{-7} cm/sec or less; or

8.2.i.2. An impervious geosynthetic liner with a permeability of 10^{-7} cm/sec or less installed in accordance with the manufacturer's recommendations, such as a 60 millimeter unreinforced liner, a 40 millimeter reinforced liner or a material of similar or more stringent specifications and that is compatible with the substances being stored; or

8.2.i.3. A double bottom or double walled tank with a leak detection system; or

8.2.i.4. An impervious concrete slab foundation with a permeability of 10^{-7} cm/sec or less.

8.3 General Upgrade Requirements for Existing AST Systems. – The owner or operator shall ensure that upgrades to all existing regulated AST systems are performed in accordance with the manufacturer's or fabricator's instructions and appropriate industry standards.

8.3.a. All existing regulated ASTs storing flammable or combustible liquids shall be upgraded with normal and emergency venting to meet the requirements of subsection 8.6 of this Rule and any standards mandated by the West Virginia Fire Marshal. All existing regulated

ASTs storing other liquids required by the applicable industry standard to have normal and emergency venting shall be upgraded to meet the requirements of subsection 8.6 of this Rule.

8.3.b. All existing regulated metallic ASTs ~~and piping~~ in direct contact with soil or other electrolytes which are not equipped with cathodic protection shall be upgraded to meet the requirements of Section 9 of this Rule.

8.3.c. All existing regulated metallic ASTs ~~and piping~~ not in direct contact with soil that are utilizing exterior coatings as a means of corrosion protection shall have an appropriate external coating to meet the requirements of subsection 9.4.

8.3.d. All existing regulated ASTs shall be upgraded with a gauge or other measuring device used that accurately shows the volume of material being stored in the AST to meet the requirements of subsection 10.1.

8.3.e. All existing regulated ASTs shall be upgraded with overfill prevention protection to meet the requirements of subsection 10.1.

8.4 Aboveground tank modifications. – The owner or operator shall ensure that modifications to all regulated AST systems are performed in accordance with the manufacturer's or fabricator's instructions, appropriate industry standards, and this Rule.

8.4.a. Regulated Aboveground tanks that are modified shall be inspected and tested according to industry standards before being put into service when a major modification has been performed on the tank shell, tank roof or tank bottom. Deficiencies shall be remedied before returning the AST system to service.

8.4.b. The owners or operator shall maintain records of major modifications to the regulated AST for the life of the AST and make those documents available to the Secretary upon request.

8.5 New Aboveground storage tanks in underground vaults. – The owner or operator shall ensure that the following requirements are met for all new regulated ASTs installed in an underground vault:

8.5.a. The vault shall completely enclose the tank and must be constructed of materials compatible with the substance to be stored in the AST.

8.5.b. A tank must be in its own vault. Adjacent vaults may share a common wall.

8.5.c. Vaults shall be designed according to sound engineering practices.

8.5.d. There may be no backfill around the tank, and there shall be sufficient space between the tank and the vault to allow inspection of the tank and ancillary equipment.

8.5.e. Tanks installed in vaults shall be designed for aboveground use.

8.5.f. A vault and its tank must be suitably anchored to withstand uplifting by either water or released substance, including when the tank is empty.

8.5.g. A suitable means to admit a fire suppression agent shall be provided for each vault that contains a flammable or combustible substance.

8.5.h. When a vault is used as the form of secondary containment for an AST system, the owner or operator shall ensure that the vault is adequately designed, constructed, and maintained to be sufficiently impervious to prevent a released substance from penetrating the vault until the release can be detected and recovered, but in no case will that time be less than seventy-two (72) hours.

8.5.i. At installation of a new tank or reconstruction or relocation of an existing regulated tank in a vault, the requirements of this subsection shall be met before placing the AST in service.

8.6 Ancillary Equipment For ASTs. – The owner or operator shall ensure that ancillary equipment up to the first point of isolation utilized in all regulated AST systems is constructed, designed, installed, and operated in accordance with the manufacturer's or fabricator's instructions, fire codes, and appropriate industry standards.

8.6.a. Ancillary equipment up to the first point of isolation is regulated and may include, but is not limited to, the following:

8.6.a.1. Normal and emergency vents;

8.6.a.2. Sumps, spill buckets, and overfill equipment;

8.6.a.3. Dispensers, dispenser hoses, and filters;

8.6.a.4. Connectors, valves, flanges, vent lines, swing lines, piping, and gauges;

8.6.a.5. Roofs, hatches, and manways;

8.6.a.6. Submersible turbine pump;

8.6.a.7. Grounding and bonding for AST systems containing flammable and combustible liquids.

8.6.b. The owner or operator shall ensure that ancillary equipment is compatible with the stored substance(s). No owner or operator shall allow storage of any liquid that is not compatible with the AST system.

8.6.c. Ancillary equipment shall be in good working order and maintained according to the manufacturer's specifications and accepted industry practices.

8.6.d. Tank connections through which fluids can flow shall be equipped with an operating valve adjacent to the tank to control flow of substance.

8.6.e. Regulated ASTs storing flammable liquids, combustible liquids or other liquids required by industry standards or the manufacturer to have normal or emergency vents shall be so equipped to protect the tank from over-pressurization and excessive vacuums and provide relief from excessive internal pressure caused by exposure to fire. All regulated ASTs, as applicable, shall be equipped with normal and emergency vents in accordance with API 2000, NFPA 30, UL 142, UL2583, or UL 2085. Nothing in this subdivision supersedes any requirements placed on these types of tanks by the West Virginia Fire Marshal.

8.6.e.1. Regulated ASTs shall be equipped with normal vents in order to allow the tank to breathe when transferring product.

8.6.e.2. Regulated ASTs shall be equipped with emergency vents to ensure that the safe pressure for the tank is not exceeded.

8.6.e.3 Normal and emergency vents must be of adequate size and capacity in accordance with the manufacturer's requirements and industry standards, such as API 2000, NFPA 30, UL 142, or UL 2085, as applicable.

8.6.e.4. The requirement for venting shall apply to each compartment of a compartmented tank and the interstitial space (annulus) of a secondary containment-type double walled tank.

8.6.e.5. For vertical tanks, the emergency relief venting construction shall be permitted to be a floating roof, a lifter roof, a weak roof-to-shell seam, or another approved pressure-relieving construction in accordance with NFPA guidance. ~~Weak roof-to-shell tank designs are not allowed for new ASTs, because they are prohibited under UL 142.~~

8.6.e.6. The normal and emergency vents must be operable and in good condition, with all components moving freely and vent passageways kept unobstructed.

8.6.e.7. Normal and/or emergency vents shall not be disabled for any reason.

8.6.f. For existing regulated AST systems certified as Fit for Service but having normal or emergency vent deficiencies, the vents shall be upgraded to meet minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

8.6.f.1. For existing Level 1 ASTs, normal and emergency vents shall be installed by December 31, 2016.

8.6.f.2. For existing Level 2ASTs normal and emergency vents shall be installed by June 30, 2017.

8.6.f.3. An existing regulated tank system that is taken out of service for internal inspection or major modification or that has been temporarily out of service and being returned to service shall be upgraded with normal and emergency vents, as applicable, prior to being put back in service.

8.7 Piping for regulated aboveground storage tanks. — The owner or operator shall ensure that regulated piping (piping up to the first point of isolation) that is installed in the regulated AST system is compatible with the substance stored and properly designed to protect against corrosion and physical damage, including damage from stresses arising from settlement, expansion, contraction, vibration, and shock.

8.7.a. New and replacement piping shall be designed, fabricated, and tested in accordance with current codes of practice developed by nationally recognized associations such as API, ASME, NACE, NFPA, PEI, STI or UL.

8.7.a.1. Installation of piping shall meet or exceed current codes of practice and be in strict accordance with the manufacturer's specifications.

8.7.a.2. Piping shall be tested for tightness at installation and after repairs. Any deficiencies found must be remedied prior to placing the piping into service.

8.7.b. All regulated metal piping conveying fluids shall be protected from corrosion and deterioration in accordance with section 9 of this Rule.

8.7.c Aboveground piping shall be adequately supported and be protected from physical damage caused by freezing, frost heaving, and vehicular traffic.

8.7.d. Piping that passes through or pierces a dike wall or the wall of a structure shall be designed to prevent damaging stresses and leakage due to settlement or fire exposure.

8.7.e. Regulated underground piping shall have an annual tightness test, unless the piping is double walled and interstitial monitoring reveals no releases found during monthly monitoring checks. If the underground piping conveys a substance under pressure, the piping must be equipped with automatic line leak detectors or other equipment that will alert the operator to the presence of a leak by restricting or shutting off the flow of substances.

8.7.e.1. The tank owner or operator shall establish leak detection performance rates for the annual piping tightness test and automatic line leak detector test.

8.7.e.2. Leak detection performance rates shall be retained for the life of the regulated AST and made available to the Secretary upon request. Leak detection performance rates shall be established utilizing best available technology or best engineering practices.

8.7.e.3. Alternatively, nondestructive examination in accordance with API 570 may be utilized in lieu of a pressure test, where appropriate. The tank owner or operator must be able

to demonstrate the capability of the nondestructive examination method to identify potential damage to the piping or release from the piping.

8.7.e.4. A tank owner or operator may provide the manufacturer's leak detection rate performance claims and their manner of determination as described in writing by the equipment manufacturer. Alternatively, leak and performance rates determined for leak detection equipment evaluated by the third party, National Work Group on Leak Detection Evaluations (NWGLDE), are acceptable provided their protocols are followed.

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

8.7.g. Each regulated AST connection through which a substance can normally flow shall be equipped with ~~an operating~~ a shutoff 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.

8.7.h. Galvanized pipe shall not be used to convey diesel fuel, biodiesel fuel, kerosene or jet fuel.

8.7.i. Regulated aboveground piping shall be tested in accordance with requirements of API 570, except when any leaks from the piping can be visibly observed.

§47-63-9. Corrosion and Deterioration Prevention.

9.1 General corrosion requirements. – The owner or operator shall ensure that all regulated ASTs ~~systems~~ are maintained with those corrosion prevention measures that are necessary ~~in order~~ to prevent releases.

9.1.a. The owner or operator shall ensure that regulated AST systems are maintained with corrosion and deterioration prevention measures until the AST system has undergone permanent closure.

9.1.b. Acceptable corrosion and deterioration protection methods may include any one or a combination of various methods, such as cathodic protection systems (galvanic or impressed current), external and internal coatings, internal tank liners, storage in a manner that prevents metal contact with an electrolyte, construction out of noncorrodible material or metal construction with a noncorrodible material coating.

9.2 Cathodic Protection Systems. – To the extent that a cathodic protection system is used as corrosion prevention, the owner or operator shall ensure that cathodic protection systems are designed by a National Association of Corrosion Engineers (NACE) certified (or equivalent) corrosion expert and maintained to provide protection against external corrosion for the operational life of the regulated tank system (tank, tank bottoms, piping) or have provisions to

allow for the periodic rehabilitation of the cathodic protection system as needed to affect repairs of failing or defective systems.

9.2.a. For new, reconstructed or relocated regulated tanks, the owner or operator shall ensure that special consideration for monitoring the cathodic protection status of the underside of the AST bottom shall be provided for in the cathodic protection system designed by the corrosion expert.

9.2.b. Regulated metallic AST systems with tank bottoms in direct contact with soil or other electrolytes shall be protected from corrosion, unless the tank is installed at a site that is determined by a NACE certified or equivalent corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life.

9.2.c. The cathodic protection system for the external bottom of a new or existing regulated metallic AST must be designed, installed, inspected, and maintained to meet or exceed the requirements for cathodic protection required by NACE Standards RP01-93, RP0169 or API 651.

9.2.d. Each cathodic protection system shall have an access point that enables the owner or operator to check on the adequacy of cathodic protection. The cathodic protection systems shall be monitored in accordance with subsection 9.3 of this Rule.

9.2.e. After installation of a sacrificial anode system, measurements of AST-to-soil potential must be made no sooner than 60 days and no later than 180 days after installation of the cathodic protection system by a person who, at a minimum, is NACE certified as a cathodic protection tester. If inadequate cathodic protection is indicated, the cause shall be determined, and the owner or operator shall ensure that necessary repairs are made within 90 days or another time period approved by the Secretary upon request of the owner or operator and for good cause shown.

9.2.f. AST and piping connections of two dissimilar metals which create a galvanic cell are prohibited.

9.2.g. For existing regulated AST systems certified as Fit for Service but having cathodic protection deficiencies, the cathodic protection system shall be upgraded to meet the minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

9.2.g.1. For Level 1ASTs, the AST system component not meeting cathodic protection standards must be upgraded or repaired and tested by June 30, 2017.

9.2.g.2. For Level 2 ASTs, the AST system component not meeting cathodic protection standards must be upgraded or repaired and tested by December 31, 2017.

9.2.g.3. An existing regulated tank system that is taken out of service for internal inspection or major modification of the tank or that has been temporarily out of service and being

returned to service shall have the cathodic protection upgraded or repaired and tested prior to placing the AST back into service.

9.3 Operation and Maintenance of Cathodic Protection Systems. – The owner or operator of a regulated AST system with cathodic protection shall ensure compliance with the following requirements to ensure that releases due to corrosion are prevented for as long as the AST system is used to store fluids.

9.3.a. All cathodic protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the regulated tank and piping that routinely contain fluid substances and are in contact with soil or an electrolyte.

9.3.b. All regulated AST systems equipped with galvanic or impressed current cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

9.3.b.1. Cathodic protection systems must be tested within six months of installation and every three years thereafter by a person who, at a minimum, is NACE certified as a cathodic protection tester. However cathodic protection systems on tank bottoms in direct contact with soil or other electrolytes shall be tested within six months of installation and annually thereafter; and

9.3.b.2. The owner or operator must maintain the results of the last two (2) cathodic protection tests and provide those to the Secretary upon request.

9.3.c. The owner or operator of a regulated AST system with impressed current cathodic protection systems must have the rectifier inspected every sixty (60) days to ensure the equipment is operating properly. The owner or operator must maintain the results of the last six (6) rectifier readings from the impressed current system and make those available to the Secretary for inspection upon request.

9.3.d. All impressed current systems shall be checked by the owner or operator and tested by a NACE certified cathodic protection tester every twelve (12) months as part of a preventative maintenance program to minimize in-service failure. The check 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.

9.3.e. 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 regulated AST, underground piping or impressed current system). The impressed current source shall be equipped with a continuously operating meter or meters that display voltage, amperage, and run time to show that the system is working.

9.3.f. If any inspection, monitoring or testing indicates that the cathodic protection system is not functioning properly, the owner or operator shall determine the cause and

immediately initiate the necessary repairs.

9.3.f.1. If a cathodic protection system on a Level 1 AST system is found to be defective and the cathodic protection system is not repairable within ninety (90) days, the owner or operator shall take immediate action to remove substances from the affected AST or underground piping, as applicable, in order to protect human health or the environment.

9.3.f.2. Substances shall not be returned to any affected part of the regulated AST system until the defective cathodic protection system has been repaired and passed a cathodic protection test.

9.3.g. The criteria for determining the effectiveness of cathodic protection shall be a negative (cathodic) potential of at least 850 millivolts (mV) with the cathodic protection current applied. Alternatively, a negative potential of at least 850 millivolts from instant off reading or a 100 mV shift from the instant off position is acceptable for impressed current systems. This potential shall be measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte.

9.3.h. Corrosion protection testing required by this section shall be performed by a person having, at a minimum, NACE certification (or equivalent) to perform corrosion testing.

9.4 Exterior Coatings. – For regulated metallic ASTs and piping, corrosion protection may consist of an appropriate external coating as specified in a nationally recognized standard or practice of a nationally recognized association, such as the Society for Protective coatings, or an independent testing laboratory.

9.4.a. When exterior coatings are used as a means of corrosion protection, the owner or operator shall ensure that the exterior surfaces of all regulated aboveground tanks and piping are protected by a suitable coating that prevents corrosion and deterioration in accordance with the requirements of this section.

9.4.~~b~~a.1. The owner or operator shall ensure that the coating is able to permanently bond to the regulated AST or piping and be of sufficient thickness, density, and strength to resist corrosion, deterioration, and degradation of the exterior of the AST or piping.

9.4.~~e~~a.2. The owner or operator shall ensure that the exterior tank and piping surfaces are properly prepared prior to the application of a coating, so that visible rust, moisture or foreign matter is not present immediately prior to the application of the coating.

9.4.~~d~~a.3. The owner or operator shall ensure that the exterior coating system is maintained in good condition to prevent corrosion throughout the entire operational life of the tank or piping.

9.4.~~e~~b. In order to prevent AST system deterioration, the owner or operator shall ensure that the regulated AST system is repaired when the following types of painting or coating failures are detected. Repairs may be made at the next scheduled maintenance activity, but in no

case shall the time for repairs exceed twelve (12) months from the date of discovery for Level 1 ASTs and twenty-four (24) months for Level 2 ASTs.

9.4.~~e~~.b1. Rust spots;

9.4.~~e~~b.2. Blisters;

9.4.~~e~~b.3 Peeling;

9.4.~~e~~b.4. Cracking;

9.4.~~e~~b.5. Coating bond failure.

9.4.~~f~~c. For existing regulated AST systems certified as Fit for Service but having corrosion deficiencies of their coating, the corrosion protection shall be repaired or upgraded to meet minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

9.4.~~f~~c.1. For Level 1 ASTs, the AST system component not meeting corrosion protection standards for coatings must be repaired or upgraded by June 30, 2017.

9.4.~~f~~c.2. For Level 2 ASTs, the AST system component not meeting corrosion protection standards for coatings must be repaired or upgraded by December 31, 2017.

9.4.~~f~~.c.3. An existing regulated tank system that is taken out of service for internal inspection or major modification to the tank or that has been temporarily out of service and is being returned to service shall have deficiencies in the coatings upgraded or repaired prior to placing the regulated AST back into service.

9.5 Interior Linings and Coatings. – Coating or lining systems may be used, as applicable, to protect tank interiors from corrosion and to meet requirements of compatibility of the AST with substances stored within the regulated AST.

9.5.a. The owner or operator shall ensure that coating or lining systems that are used in the regulated ASTs are designed in accordance with current codes of practices such as API 652 or associations such as NACE. Any appropriate coating that is bonded firmly to the interior surfaces may be used to protect a tank from corrosion. Specific requirements are as follows:

9.5.a.1. Coatings and linings shall be chemically compatible with the substance to be stored. No owner or operator shall allow storage of any liquid that is not compatible with the AST system.

9.5.a.2. Coating material shall be applied and cured in strict accordance with the manufacturer's specifications.

9.5.a.3. Surfaces shall be prepared and inspected in accordance with applicable

nationally-recognized codes and standards.

9.5.a.4. Coatings used to protect the bottom of a tank shall extend up the side of the tank a minimum of 18 inches, while some forms of lining may cover the entire tank interior.

9.5.a.5. Coatings shall be examined for blisters and air pockets and tested for pinholes. The coating thickness shall be checked to assure compliance with the manufacturer's specifications and industry standards.

9.5.a.6. Defects in coating or lining systems shall be repaired or corrected prior to putting the tank or system into service.

9.5.b. The owner or operator shall ensure that interior linings or coatings are inspected by an API or STI certified aboveground storage tank inspector, NACE certified corrosion technician or other qualified individual:

9.5.b.1. At installation;

9.5.b.2. When the regulated AST undergoes a major modification;

9.5.b.3. As warranted or recommended by the manufacturer or design engineer;

9.5.b.4. At a minimum, at least every ten years after installation of the internal lining.

9.5.c. For existing regulated systems certified as Fit for Service but having known corrosion deficiencies of their internal lining noted during inspections performed to meet requirements of subdivision 9.5.b of this Rule, the corrosion protection shall be repaired or upgraded, as applicable, to meet the minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

9.5.c.1. For Level 1 ASTs, the AST system component not meeting corrosion protection standards for internal lining must be repaired or upgraded by June 30, 2017.

9.5.c.2. For Level 2 ASTs, the AST system component not meeting corrosion protection standards for internal lining must be repaired or upgraded by December 31, 2017.

9.5.c.3. A regulated existing tank system that is taken out of service for internal inspection or major modification to the tank or that has been temporarily out of service and is being returned to service shall have deficiencies in the internal lining upgraded or repaired prior to placing the AST back into service.

§47-63-10. Release Prevention, Leak Detection and Secondary Containment.

10.1 Spill and Overfill Prevention General Requirements. – The owner or operator must ensure that releases from regulated ASTs due to spilling and overfilling do not occur. Regulated

ASTs that do not receive deliveries of substances (e.g. an AST at an oil or gas site that is connected directly to a pipeline or well) are only subject to the spill and overfill prevention requirements of subsection 10.1 through subdivision 10.1.b. of this section.

10.1.a. The owner or operator must ensure that the volume of storage capacity available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly by the owner's or operator's personnel to prevent overfilling and spilling, if there are no mechanical means to prevent overfilling.

10.1.a.1. For regulated ASTs that do not receive deliveries of substances (e.g. an AST at an oil or gas site that is connected directly to a pipeline or well), the requirement for constant monitoring of transfer operations is not applicable; however, the owner or operator must ensure that the AST is monitored in a manner so as to prevent spills and overfills.

10.1.a.2. Immediate action shall be taken by the owner or operator to stop the flow of fluids prior to exceeding tank capacity or in the event that an equipment failure occurs.

10.1.b. The owner or operator shall report, investigate, and clean up spills and overfills in accordance with the requirements of sections 6 and 7 of this Rule.

10.1.c. To prevent spilling associated with product transfer, the owner or operator shall ensure that the regulated AST systems have spill prevention equipment (such as a spill catchment basin or spill containment bucket) that will prevent a release of product to the environment.

10.1.d. The owner or operator must ensure that releases due to overfilling do not occur by ensuring that new regulated ASTs are installed with the following:

10.1.d.1. A gauge or monitoring device that accurately indicates the level or volume in the tank and is visible to the individual responsible for the transfer of the product. The monitoring device shall be installed, calibrated, and maintained in accordance with the manufacturer's specifications; or

10.1.d.2. A high-level alarm with an automatic high-level cut-off device or a high-level alarm with a manned operator shutdown procedure in operation; or

10.1.d.3 Any overfill device approved by the Secretary in writing. The owner or operator must utilize an overfill protection device that meets the current industry standards for the AST.

10.1.e. The owner or operator must ensure that releases due to overfilling do not occur by ensuring that existing regulated ASTs without overfill protection meeting the requirements of paragraphs 10.1.d.1, 10.1.d.2, and 10.1.d.3 are upgraded on the following schedule if they receive deliveries:

10.1.e.1. For existing regulated AST systems certified as Fit for Service but having

overfill or spill protection deficiencies, the overfill or spill protection system shall be upgraded to meet the minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

10.1.e.1.A. For Level 1 ASTs, the AST system component not meeting overfill or spill requirements must be upgraded by June 30, 2017.

10.1.e.1.B. For Level 2 ASTs, the AST system component not meeting overfill or spill requirements must be upgraded by December 31, 2017.

10.1.e.1.C. A regulated existing tank system that is taken out of service for internal inspection or major modification to the tank or that has been temporarily out of service and is being returned to service shall have the overfill or spill protection upgraded prior to placing the AST back into service.

10.1.f. Prior to receiving deliveries, the owner or operator shall ensure that fill valves are properly labeled with the product stored, all AST fill valves that are not in use are secured, and only the ASTs designated are receiving deliveries. The owner or operator shall ensure the transfer operation is monitored either by manual or automatic means to prevent overfilling.

10.1.g. The owner or operator shall ensure that immediate action is taken to stop the flow of the substance being transferred when the capacity of the tank has been reached or in the event of an equipment failure or emergency.

10.1.h. Overfill prevention devices that are designed for use with gravity deliveries must not be used when a pump is used to fill the tank.

10.1.i. Overfill and spill equipment must be properly installed, operated, inspected, tested, and maintained in accordance with the manufacturer's specifications.

10.2 Secondary Containment Requirements for Regulated ASTs ~~Systems~~

10.2.a. The owner or operator shall ensure that all regulated ASTs ~~systems~~ have a secondary containment system that collects and contains an unintentional release from an AST and its ancillary equipment up to the first point of isolation.

10.2.b. All secondary containment structures shall be compatible with all substance(s) stored within the containment structure.

10.2.c. The owner or operator shall ensure that secondary containment for existing regulated AST systems shall be adequately designed and constructed to be sufficiently impervious to prevent the released substance from penetrating the containment structure until the release can be detected and recovered, but in no case will that time be less than seventy-two (72) hours.

10.2.d. The owner or operator shall ensure that secondary containment structures for

Level 1 ASTs are visually inspected for the presence of released fluids from the AST system at least once every ~~seven (7)~~ fourteen (14) days and Level 2 ASTs are visually inspected, at a minimum, at the time of the monthly inspection required in subdivision 5.1.b of this Rule. If liquids are found in the secondary containment area, the owner or operator shall take action as required under paragraphs 5.1.a.2 and 5.1.a.3 of this Rule.

10.2.e. Secondary containment structures shall be designed, constructed, and maintained in accordance with sound engineering practices adhering to nationally-recognized standards, such as API, NFPA, and STI, as applicable.

10.2.e.1. For regulated ASTs containing flammable or combustible materials, the walls of the diked area shall be of earth, steel, concrete or solid masonry and be designed, built, and maintained to withstand a full hydrostatic head.

10.2.e.2. Alternatively, the Secretary may approve other construction materials that are shown to be appropriate for use with flammable or combustible materials.

10.2.f. The owner or operator shall ensure that new secondary containment systems for Level 1 ASTs installed after the effective date of this Rule are designed to direct any release to a monitoring point to meet leak detection requirements on a new tank at installation, reconstruction or relocation of an existing tank or when any part of the tank floor is replaced. Permeability of the secondary containment must be less than 1×10^{-7} cm/sec at anticipated hydrostatic head and shall be verified at the time of installation.

10.2.g. The owner or operator must take action to correct deficiencies found in secondary containment areas in order to prevent releases to the environment.

10.2.g.1. The owner or operator shall make contact with the Department within seventy-two (72) hours of discovery of the deficiency.

10.2.g.1.A. If a secondary containment structure for a Level 1 AST is found to be defective and the structure is not repairable within seventy-two (72) hours, the owner or operator shall take immediate action to remove substances from the AST system(s) affected in order to protect human health or the environment. Alternatively, the tank owner or operator may request an extension from the Secretary for good cause shown.

10.2.g.1.B. Substances shall not be returned to the regulated AST system until the defective secondary containment structure has been repaired and is certified by a professional engineer, an API certified inspector or a STI certified inspector as meeting the minimum requirements of this Rule.

10.2.g.1.C. Transfers of substances to and from a regulated AST within secondary containment shall be monitored by personnel designated by the owner or operator for the duration of the transfer.

10.2.h. Double walled ASTs serve as secondary containment so long as substance

transfer and the interstitial space are continuously monitored. Therefore, a separate secondary containment basin is not required for the AST, but single walled piping, dispenser, and ancillary equipment up to the first point of isolation would require secondary containment.

10.2.i. The owner or operator shall ensure that secondary containment areas, such as dikes and curbing or paving, shall be designed and certified by a professional engineer or other qualified person to prevent the discharge from the containment area of the entire capacity of the largest single tank, assuming a full tank, and sufficient freeboard to contain all collected precipitation until the secondary containment is inspected in accordance with requirements of subsection 5.1 of this Rule. When determining the largest AST in a containment area, the combined capacity of manifolded tanks must be considered if a leak from one tank or the piping is capable of emptying the other tanks.

10.2.i.1. Calculations for dike capacity must consider the volume of the largest AST within the dike, the displacement volumes from other ASTs and other items within the dike, if present, and account for sufficient freeboard for precipitation events.

10.2.i.2. Factors to be considered in determining the appropriate capacity for the secondary containment area shall be documented and include:

10.2.i.2.A. Size of largest AST;

10.2.i.2.B. Size of other ASTs and their effect on the overall capacity of the secondary containment area;

10.2.i.2.C. Local precipitation conditions;

10.2.i.2.D. Height of existing containment area;

10.2.i.2.E. Frequency of containment drainage and inspections;

10.2.i.2.F Site safety considerations; and

10.2.i.2.G. The appropriateness of using a twenty-five (25) year, twenty-four (24) hour storm event precipitation design criteria for determining containment freeboard.

10.2.i.3. The secondary containment system containing flammable or combustible ASTs shall not be used to store combustible materials, empty or full drums, or barrels.

10.2.i.4. ~~For dikes in existence prior to the effective date of this Rule, the area within the dike~~ Dikes shall be kept free of woody or other deep rooted vegetation, debris, and any other material not necessary to the operation of the facility. ~~For dikes installed after the effective date of this Rule, the area within the dike must be kept free of all vegetation, debris, and any other material not necessary to the operation of the facility.~~

10.2.i.5. Drains on secondary containment systems shall be kept in good operating

condition, closed, and secured. Flapper-type drain valves shall not be utilized on secondary containment systems unless the discharge to a wastewater treatment system.

10.2.i.6. Drains and drain valves constructed of low melting point materials, such as brass or PVC, shall not be utilized in secondary containment systems.

10.2.j. An external liner is a liner that is installed inside an existing secondary containment structure, such as a dike, to provide additional assurance of impermeability. External liners must be compatible with the substance(s) stored in the regulated AST system.

10.2.k. Stormwater shall be removed from secondary containment areas as soon as possible or when the water is in contact with the tank or piping and prior to the capacity of containment being reduced by ten percent (10%) or more. Manually operated pumps or siphons and manually operated gravity drains may be used to empty the containment. ~~A written log of discharge events shall be kept for one (1) year.~~ If drain valves are used, they shall be secured in the closed position at all times except during controlled drainage events. Accumulated stormwater must be inspected prior to discharge to ensure no substance other than stormwater is present. Discharge or disposal of substances from the containment structure must comply with applicable State and federal requirements.

10.2.l. For existing regulated AST systems certified as Fit for Service but having secondary containment deficiencies, the secondary containment system shall be upgraded, repaired or otherwise brought into compliance to meet the minimum requirements of this Rule and industry standards on the schedule provided by the certifying person, but in no case later than the following:

10.2.l.1. For Level 1 ASTs, the AST system component not meeting secondary containment requirements must be upgraded to meet secondary containment requirements for existing ASTs within three (3) months of the effective date of this Rule.

10.2.l.2. For Level 2 ASTs, the AST system component not meeting secondary containment requirements must be upgraded to meet secondary containment requirements for existing ASTs within six (6) months of the effective date of this Rule.

10.2.l.3. A regulated existing tank system that is taken out of service for internal inspection or major modification of the tank or that has been temporarily out of service and is being returned to service shall meet the secondary containment requirements prior to placing the AST system back into service.

10.3 Leak Detection Requirements. – The owner or operator shall ensure that regulated aboveground storage tank systems are monitored for leak detection at least once per calendar month, using a method or combination of methods that are capable of detecting a release from any portion of the AST.

10.3.a. The leak detection method or equipment, other than visual, shall be installed, calibrated, operated, and maintained in accordance with applicable ~~the~~ manufacturer's

specifications, including routine maintenance checks for operability to ensure that the device is functioning as designed.

10.3.a.1. All manufacturer's instructions, performance claims, and their manner of determination described in writing by the equipment manufacturer or installer shall be retained by the owner or operator for the life of the AST and made available to the Secretary upon request.

10.3.a.2. The owner or operator, using a leak detection method other than visual, shall establish leak detection performance rates for each in accordance with paragraphs 10.3.a.3 or 10.3.a.4. The owner or operator shall retain leak detection performance rates for the life of the regulated AST and made available to the Secretary upon request. Leak detection performance rates shall be established utilizing best available technology or best engineering practices.

10.3.a.3. A tank owner or operator may establish leak detection performance rates by providing the manufacturer leak detection rate performance claims and their manner of determination described in writing by the equipment manufacturer.

10.3.a.4. Alternatively, leak detection performance rates determined for leak detection equipment evaluated by the third party, National Work Group on Leak Detection Evaluations (NWGLDE), are acceptable provided their protocols are followed.

10.3.b. The owner or operator shall ensure that the area beneath the tank bottom is monitored for leakage by visual, mechanical or electronic leak detection methods.

10.3.c. Visual testing is ~~only~~ an acceptable form of leak detection for regulated AST systems so long as the entire area of concern (e.g. the ~~entire~~ AST itself~~, including the AST bottom or~~ and its aboveground piping, flanges, valves, etc. and its secondary containment) ~~must be~~ is readily accessible for view and properly illuminated by natural or artificial light (minimum of 50-foot candles or 100 lumens) at the time of the visual testing. If either of the methods listed in Sections 10.3.c.1 and 10.3.c.2 are utilized, the area for observation of any fluids must be readily accessible for view and properly illuminated. Visual tests may be performed remotely by using mirrors, cameras or other suitable instruments.

10.3.c.1. A double-bottomed or double-walled tank that is designed and constructed to channel fluids to an area for observation is an acceptable form of visual testing.

10.3.c.2. A release prevention barrier that is designed and constructed to channel fluids to an area for observation is an acceptable form of visual testing.

10.3.c.3. Liquids discovered in a double-bottomed or double walled tank or release prevention barrier structures must be immediately removed in order to continue using visual testing of these systems for leak detection.

10.3.d. New Level 1 ASTs shall be double-walled, double-bottomed or installed with a release prevention barrier that allows for releases from all parts of the AST to be visually

observed.

10.3.e. Acceptable forms of leak detection for all regulated AST systems include any one or a combination of the following methods:

10.3.e.1. Visual inspection subject to the requirements of subdivision 10.3.c.;

10.3.e.2. Automatic tank gauging;

10.3.e.3. Statistical inventory reconciliation;

10.3.e.4. Interstitial monitoring;

10.3.e.5. Soil vapor monitoring within secondary containment;

10.3.e.6. Volumetric or mass measurements;

10.3.e.7. Acoustic measurement; or

10.3.e.8. Inventory control with tank tightness testing; or

10.3.e.9. Other forms approved by the Secretary upon request and for good cause shown.

10.3.f. A tank tightness test must follow a nationally recognized procedure that is based on a volumetric or mass measurement or an acoustic measurement, such as those addressed in API Publication 334 "Guide to Leak Detection in Aboveground Storage Tanks."

10.3.f.1. The test shall be performed by a third-party inspector or third-party technician who has experience with the selected method and is qualified by the test equipment manufacturer or certified by the relevant industry association and is not an employee of the tank owner.

10.3.f.2. The tank tightness test report must provide information on the leak rate that is detectable by the method for the given tank tested and provide information on the probability of detection and probability of false alarm for the given leak rate.

10.3.g. Any interstitial spaces, including without limitation those located in double-walled ASTs, double-walled piping, and double bottomed tanks that are installed as part of a new or upgraded regulated AST system, shall be equipped with interstitial monitoring equipment capable of detecting a discharge of a substance into the interstitial space under all operating conditions, and the interstitial space shall be monitored once every calendar month.

10.3.h. The Secretary may approve other leak detection methods if the owner or operator can demonstrate that the method can detect a release as effectively as any of the methods listed above. In comparing methods, the Secretary shall consider the size of release that

the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner or operator must comply with any conditions imposed by the Secretary on its use to ensure the protection of human health or the environment. Alternatively, leak and performance rates determined for leak detection equipment evaluated by the third party, National Work Group on Leak Detection Evaluations (NWGLDE), are acceptable provided their protocols are followed.

10.3.i. When a combination of leak detection methods is utilized to meet the monthly leak detection requirement, a failure of any one method (e.g. an automatic tank gauge indicates a failure during monthly test) is considered a failure of the leak detection equipment or test method for the component being tested.

10.3.j. Two consecutive months of inconclusive results or three non-consecutive months of inconclusive results in a twelve (12) month period is considered a failure of the leak detection method for automatic tank gauge and statistical inventory reconciliation methods.

10.3.k. Regulated underground piping shall be tested in accordance with the requirements of subsection 8.7 of this Rule.

10.3.l. All leak detection records shall be kept at the facility for a minimum of twelve (12) continuous months and made available to the Secretary upon request.

10.3.l.1. The records should clearly demonstrate and document that the leak detection monitoring performed was capable of detecting an unintentional release from any portion of the AST system; and

10.3.l.2. Leak detection was performed at least every calendar month for the regulated AST system; and

10.3.l.3. The person performing the monitoring activity shall document the following:

10.3.l.3.A. Name of the person doing the monitoring;

10.3.l.3.B. Monitoring method or methods used; and

10.3.l.3.C. Monitoring date and results;

10.3.m. For existing regulated AST systems certified as Fit for Service but having leak detection deficiencies, the leak detection system shall be upgraded or repaired to meet the minimum requirements of this Rule and industry standards by the owner or operator on the schedule provided by the certifying person, but in no case later than the following:

10.3.m.1. For Level 1 ASTs, the AST system component not meeting the requirements for leak detection must be upgraded, repaired or otherwise brought into compliance by June 30, 2017, except that leak detection by visual means must have begun no later than the

effective date of this Rule.

10.3.m.2. For Level 2 ASTs, the AST system component not meeting the requirements for leak detection must be upgraded, repaired or otherwise brought into compliance by June 30, 2018, except that leak detection by visual means must have begun no later than the effective date of the this Rule.

10.3.m.3. A regulated existing tank system that is taken out of service for internal inspection or major modification to the tank or that has been temporarily out of service and is being returned to service shall have to meet the leak detection requirements prior to placing the AST system back into service.

§47-63-11. Nonoperational, Change in Service, and Closures of AST Systems.

11.1 Nonoperational ASTs. – An AST is considered nonoperational when the tank is empty and will not have fluids deposited in or dispensed out of the tank on or after June 6, 2014. Nonoperational ASTs cannot be returned to service.

11.1.a. Nonoperational ASTs must be registered and labeled in accordance with requirements of §22-30-11. ~~When a regulated AST system becomes nonoperational, the owner or operator shall:~~

~~11.1.a.1. Complete and submit a registration form to the Secretary showing the status of the tank as nonoperational;~~

~~13.1.a.2. Ensure that the AST has been emptied and cleaned by removing all liquids and accumulated sludge;~~

~~11.1.a.3. Protect the AST against flotation if it is in an area subject to potential flooding;~~

~~11.1.a.4. Secure the AST against unauthorized entry and cap or blind flange all piping entering or exiting the tank, excluding vents;~~

~~11.1.a.5. Ensure that the AST is not placed back into service; and~~

~~11.1.a.6. Maintain records at the facility documenting information concerning the nonoperational status of the tank (i.e. date tank was placed in nonoperational status, dates of product removal, tank contents and cleaning material disposal records, etc.).~~

11.1.b. The owner or operator must permanently close AST systems located within the zone of critical concern that have been in nonoperational status for seven (7) years, unless the time frame for retaining the AST system in nonoperational status is extended by the Secretary upon request of the owner or operator and for good cause shown.

~~11.2 Temporarily Out of Service~~

~~11.2.a. When a regulated AST system is temporarily out of service, the owner or operator must:~~

~~11.2.a.1. Complete and submit an amended registration form to the Secretary within one hundred eighty (180) one (1) year days of the change in tank status.~~

~~11.2.a.2. Continue operation and maintenance of the corrosion protection system.~~

~~11.2.a.3. Empty the AST and reuse, treat or dispose of the AST system contents in accordance with State and federal requirements.~~

~~11.2.a.34. Perform monthly leak detection, if the AST has not been cleaned by removing all liquids and accumulated residues.~~

~~11.2.a.45. Perform required annual inspections, including certification of AST system integrity.~~

~~11.2.a.56. Protect the AST system against flotation if it is in an area subject to potential flooding.~~

~~11.2.a.67. Secure the AST against unauthorized entry if it is TOS for one year hundred eighty (180) days or more and cap or blind flange all piping entering or exiting the tank, excluding vents.~~

~~11.2.a.78. Maintain records at the facility documenting when the AST was placed in TOS status (i.e. dates of product removal, dates of returning to service, tank inspections, etc.).~~

~~11.2.b. Prior to returning a regulated AST system that was in TOS status back into service, the owner or operator must:~~

~~11.2.b.1. Conduct or cause to be conducted an annual inspection of the AST to ensure that the secondary containment for the AST meets or exceeds the minimum standards of this rule.~~

~~11.2.b.12. Conduct or cause to be conducted an annual inspection and certification in accordance with subsection 5.2 of this Rule if it has been more than one (1) year since the last inspection was certified by a Professional Engineer, an API certified inspector or a STI certified inspector.~~

~~11.2.b.3. Conduct or cause to be conducted a tightness test on the AST and piping that is part of the AST system.~~

~~11.2.b.4. Conduct or cause to be conducted a functionality check on any automatic line leak detector installed on piping.~~

~~11.2.c. Regulated AST systems that have been TOS for seven (7) years must be cleaned~~

~~by removing all liquids and accumulated residues by the end of the seven (7) year period.~~

11.2~~3~~ Changes In Service for ASTs. – A change in service to a registered aboveground storage tank includes, but is not limited to, a change in nature of contents, relocation, or permanent closure. ~~or change in status from either currently in use (CIU) or temporarily out of service (TOS).~~

11.2~~3~~.a. The owner or operator shall amend its registration in accordance with subdivision 3.1.d of this Rule when performing a change in service.

11.2~~3~~.b. The owner or operator shall document that any new substance to be placed in the AST is compatible with the AST system components and with the secondary containment measures for the AST system.

11.2~~3~~.c. The owner or operator shall ensure proper handling, storage, and disposal procedures of all of the AST system contents and cleaning materials during a change in service procedure. These materials must be reused, treated or disposed of in accordance with State and federal requirements.

11.2~~3~~.d. The owner or operator shall submit a modified Spill Prevention Response Plan for regulated ASTs, if required, by subsection 5.5 of this Rule.

11.3~~4~~ Permanent Closure of Regulated AST Systems

11.3~~4~~.a. To place a regulated AST system in permanent closure, the owner or operator must empty and clean the AST, piping, and any associated equipment by removing all liquids and accumulated residues. All tanks permanently taken out of service must be either dismantled and removed from the site or rendered unusable for the storage of any substance.

11.3~~4~~.b. At least thirty (30) days before beginning a permanent closure, the owner or operator shall notify the Secretary in writing of its intent to permanently close the regulated AST system, unless the action is in response to a corrective action ordered by the Secretary. A waiver of the thirty (30) day notice may be granted by the Secretary upon request of the owner or operator and for good cause shown.

11.3~~4~~.c. Closure activities must be performed in accordance with industry standards (such as API, NFPA, and STI) and closure guidance documents developed by the Secretary.

11.3~~4~~.d. Closure activities must be performed by a professional engineer, a person certified by API or STI or a person holding certification under another program approved by the Secretary.

11.3~~4~~.e. The owner or operator shall submit a closure plan for review and approval by the Secretary at least thirty (30) days prior to closure. The owner or operator must measure for the presence of a release where contamination is most likely to be present at the AST site and consider the method of closure, the nature of the stored substance, the analytical methods to be

performed, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release.

11.34.f. The tank owner or operator shall submit a minimum of three (3) copies of the closure report to the Secretary no later than sixty (60) days after the closure has been completed. The closure report shall describe the regulated AST system closure procedures, including findings of any closure sampling required as part of the closure. The owner or operator shall retain a copy of the closure report for a minimum of three (3) years. If records cannot be maintained at a closed facility or an alternative site, the tank owner or operator may transmit the permanent closure records to the Secretary.

11.34.g. If contaminated soil, sediment, surface water or groundwater or free product is discovered outside of secondary containment or confirmed by either direct observation or indicated by the analytical results of the closure sampling, the owner or operator shall report the release immediately and comply with section 7 of this Rule.

11.34.h. Tanks that undergo permanent closure and left onsite shall be rendered unusable for the storage of any substance and shall be secured against unauthorized entry. The regulated AST is to be legibly marked by placing a stencil in a readily visible location that states the name of the last substance stored in the AST, the date of closure, and the words "Permanently Closed".

~~**§47-63-12. Delivery Prohibition.**~~

~~12.1. Product deliverers or transporters, including any person who approves a delivery order or delivers or deposits fluids into a regulated aboveground storage tank, shall not deliver product into a regulated aboveground storage tank unless the owner or operator provides proof to the product deliverers or transporters of compliance with the following:~~

~~12.1.a. Registration requirements;~~

~~12.1.b. Payment of annual registration fee assessments; and~~

~~12.1.c. Proof of financial responsibility requirements set forth in section 13 of this Rule.~~

~~12.2 Ineligibility to Receive Product for Compliance Related Violations~~

~~12.2.a. In addition to the delivery prohibition requirements of subsection 124.1 above, the Secretary may classify a regulated aboveground storage tank as ineligible to receive product if the AST is found to be in violation of one or more of the following requirements, and the owner or operator has failed to resolve the violation in a timely manner.~~

~~12.2.a.1. Leak detection has not been performed in accordance with the requirements of subsection 10.3 of this Rule.~~

~~12.2.a.2. Corrosion protection equipment has not been installed, properly operated, maintained or tested in accordance with the requirements of section 9 of this Rule.~~

~~12.2.a.3. Required secondary containment has not been installed or maintained in accordance with the requirements of subsection 10.2 of this Rule.~~

~~12.2.a.4. Required financial responsibility has not been maintained in accordance with the requirements of section 13 of this Rule.~~

~~12.2.a.5. Spill prevention and overfill prevention equipment have not been installed or properly operated or maintained in accordance with the requirements of subsection 10.1 of this Rule.~~

~~12.2.b. All ASTs registered as noneperational are prohibited from receiving deliveries of substances.~~

~~12.2.c. The Secretary shall notify the owner or operator in writing that a regulated aboveground storage tank is in violation of the requirements of subdivision 12.2.a. and is ineligible to accept deposit or delivery. The Secretary may affix a tag, notice or locking device to the aboveground storage tank until compliance with the requirements of subdivision 12.2.a is achieved.~~

~~12.2.d. Product deliverers or transporters shall not deliver or deposit into a regulated aboveground storage tank, nor shall an aboveground storage tank accept or allow delivery or deposit to an AST that does not meet the requirements of subsection 12.1 or for an AST which the Secretary has identified as ineligible to receive product per requirements of subdivision 12.2.a.~~

~~12.2.e. If an eligible regulated AST is connected or manifolded to an ineligible AST, the Secretary may determine that both ASTs are ineligible to receive delivery, deposit or acceptance of fluid substances for purposes of this Rule, unless the eligible regulated AST tank meets both of the following requirements:~~

~~12.2.e.1. The eligible AST is designed to receive fluids through a means not connected, manifolded or otherwise dependent on the ineligible AST; and~~

~~12.2.e.2. The eligible AST is prevented from delivering or receiving fluids to or from the ineligible AST.~~

~~12.2.f. For a multiple compartment regulated AST, the tag notice or locking device shall only be attached to the fill pipe of the compartment associated with the condition or violation that resulted in the compartment being determined ineligible for the delivery, deposit or acceptance of fluid substances.~~

~~12.2.g. The Secretary may choose to classify a regulated AST as ineligible to receive product but then authorize delivery in an emergency situation.~~

~~12.2.h. Any product deliverer or transporter or owner, or operator who violates the provisions of this section is subject to the enforcement provisions of W. Va. Code § 22-30-17.~~

§47-63-~~13~~12. Financial Responsibility Requirements.

1~~3~~2.1. General Financial Assurance Requirements

1~~3~~2.1.a. The owner or operator of a regulated AST must demonstrate financial responsibility for taking corrective action caused by accidental releases arising from the operation of aboveground storage tank systems. All forms of financial assurance must be submitted in accordance with the AST Act and this Rule in a manner prescribed by the Secretary and must remain in effect for the operational life of the tank or tank facility.

1~~3~~2.1.b. The mechanisms used to demonstrate financial assurance under this section must be conditioned upon the owner or operator complying with the Aboveground Storage Tank Act, any rules promulgated thereunder, any order of the Secretary, and the terms and conditions of the certificate to operate and ensure that the funds necessary to meet the costs of containment and corrective action for known releases will be available whenever they are needed.

1~~3~~2.1.c. The owner or operator shall demonstrate financial responsibility in an amount calculated as follows:

1~~3~~2.1.c.1. For Level 1 ASTs, an amount equal to twenty cents per gallon (20¢/gal.) of the aggregate storage capacity for the tank or tank facility, at a minimum of five thousand dollars ($5,000).

1~~3~~2.1.c.2. For Level 2 ASTs, an amount equal to ten cents per gallon (10¢/gal.) of the aggregate storage capacity for the tank or tank facility, at a minimum of five thousand dollars ($5,000).

1~~3~~2.1.d. The financial assurance mechanisms must be legally valid, binding, and enforceable under State and federal law.

1~~2~~3.1.e. If, for any reason, an owner or operator fails to maintain proper financial assurance for taking corrective action, the Secretary shall issue a cease and desist order and revoke the certificate to operate, and the owner or operator may not operate the regulated AST until appropriate financial assurance has been obtained for the AST system.

1~~3~~2.1.f. If the owner and operator of an aboveground storage tank are separate entities, only one entity is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance.

1~~3~~2.2. Allowable Mechanisms of Financial Assurance or Bonding

1~~3~~2.2.a. Surety bond;

1~~3~~2.2.b. Collateral bond, including:

1~~3~~2.2.b.1. Cash deposits, certified checks, cashiers' checks or treasurer's checks that are issued, drawn on or certified by a bank or banking institution authorized to do business in this State;

1~~3~~2.2.b.2. Collateral securities;

1~~3~~2.2.b.3. Certificates, including:

1~~3~~2.2.b.3.A. Bonds of the United States or its possessions;

1~~3~~2.2.b.3.B. Bonds of the Farm Credit Bank;

1~~3~~2.2.b.3.C. Full Faith and General Obligation bonds of the State of West Virginia or other states and of any West Virginia county, district or municipality, or any county, district or municipality of other states;

1~~3~~2.2.b.3.D. Letters of credit from banks or banking institutions authorized to do business in this State and that are automatically renewable and irrevocable;

1~~3~~2.2.b.3.E. Certificates of deposit from banks or banking institutions authorized to do business in this State and that are automatically renewable and assignable; or

1~~3~~2.2.b.3.F. Negotiable bonds of the United States or its possessions; the Farm Credit Bank; or Full Faith and General Obligation bonds of the State of West Virginia or other states and of any West Virginia county, district or municipality, or any county, district or municipality of other states.

1~~3~~2.2.c. Escrow account;

1~~3~~2.2.d. Performance bonding fund participation as established by the Secretary;

1~~3~~2.2.e. Trust fund;

1~~3~~2.2.f. Tank insurance for performing corrective action;

1~~3~~2.2.g. The financial test of self-insurance;

1~~3~~2.2.h. Proof of assets; ~~or~~

12.2.i. Bonds or other surety alternatives issued in accordance with Articles 3, 6, and 6A of Chapter 22 of the West Virginia Code satisfies the financial responsibility requirements of the Act and this Rule, provided that the operator provides proof that the bond will cover tank-related costs of corrective action up to the amount of the bond; or

1~~3~~2.2.j~~h~~. Other forms approved by the Secretary upon request and for good cause shown.

1~~3~~2.3. Use of Multiple Financial Mechanisms.

1~~3~~2.3.a. If the owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for taking corrective action caused by accidental releases; the amount of financial responsibility provided by the combination of mechanisms must be in the full amounts specified in Section 13.1.c.

1~~3~~2.3.b. 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 such order and priority shall be consistent with all regulatory requirements for demonstrating financial responsibility.

1~~3~~2.3.c. The Secretary may refuse to accept the combination of financial assurance mechanism if it is determined that the financial guarantee is unacceptable or for any other reason, does not meet the purposes of the Act, this Rule, or orders of the Secretary, or other relevant financial, insurance, or bonding laws of the State of West Virginia.

1~~3~~2.3.d. The financial test and a guarantee provided by a corporate parent, sibling or grandparent may not be combined if the financial statements of the two firms are consolidated.

1~~3~~2.3.e. Mechanisms used to demonstrate financial assurance with the Aboveground Storage Tank Act, any rules promulgated thereunder, or any order of the Secretary, must adhere to the relevant financial, insurance, or bonding laws of the State of West Virginia.

1~~3~~2.4 Releases From the Requirements of Financial Responsibility

1~~3~~2.4.a. An owner or operator is no longer required to maintain financial responsibility for an AST after the tank has been properly closed, or if corrective action is required, after corrective action has been completed and the tank has been properly permanently closed.