

**335-6-15-.02 Definitions.** The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise:

(a) "Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.

(b) "ADEM" means the Alabama Department of Environmental Management.

(c) "Airport hydrant fuel distribution system" means an UST system which fuels aircraft and operates under high pressure with large diameter underground piping that typically terminates into one or more hydrants (fill stands). The airport hydrant fuel distribution system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier.

(d) "Ancillary equipment" means any devices including, but not limited to, such devices as underground piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

(e) "Belowground release" means any release to the subsurface of the land, including releases to groundwater. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

(f) "Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials.

(g) "Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, an underground storage tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

(h) "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and underground storage tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and underground storage tank systems. Such persons must also be certified, and then recertified every 3 years, as successfully completing in-class and field training from a corrosion expert. Certification may no longer be

recognized by the Department and/or the certifying organization if a certified individual is not recertified within 90 days or another time period approved by the Department after expiration of their certification, there is evidence of fraud, or the tester is determined by the Department to not be capable of properly performing cathodic protection testing. At a minimum, certification training shall encompass all of the following and recertification training shall include the training outlined in subparagraphs (h)3. through 5. of this rule, or be in accordance with NACE International certification and recertification requirements:

1. Basics of corrosion which include the following discussions:
  - (i) What corrosion is;
  - (ii) Significance and costs of corrosion;
  - (iii) Conditions for corrosion to occur;
  - (iv) Electrochemical aspects of corrosion;
  - (v) Environmental effects on UST systems such as oxygen, temperature, corrosivity of the environment, concentration of corrosive element, and galvanic coupling;
  - (vi) Types of corrosion;
  - (vii) Galvanic series and Electromotive Force series; and
  - (viii) Corrosion properties of different metals and nonmetals.
2. Underground corrosion discussion which includes the following:
  - (i) Chemical and physical properties of soils;
  - (ii) Factors affecting underground corrosion such as:
    - (I) Soil particle size and composition; and
    - (II) Electrolyte moisture content, resistivity, and acidity/alkalinity;
  - (iii) Factors in underground corrosion of ferrous metals such as burial depth, area effects, and time buried; and
  - (iv) Behavior of coatings in soils.
3. Corrosion prevention discussion which includes the following:
  - (i) Impressed current cathodic protection system mechanism, economics, continuity and structure-to-soil testing, anode selection, life of anode, anode environment, design and installation of anodes;

- (ii) Sacrificial anode (galvanic) cathodic protection system mechanism, economics, continuity and structure-to-soil testing, anode selection, life of anode, anode environment, design and installation of anodes;
- (iii) Sources of power for cathodic protection;
- (iv) When to use an impressed current cathodic protection system versus a sacrificial anode cathodic protection system;
- (v) Misconceptions about cathodic protection;
- (vi) Purpose of cathodic protection monitoring and testing, criterion used for monitoring steel, and criterion for monitoring other metals;
- (vii) Reference cell purpose, practical test locations, test stations, and maintenance;
- (viii) Stray current sources, detection, testing, and prevention;
- (ix) Use of coatings in underground applications to prevent corrosion; and
- (x) UST internal corrosion problems and prevention.

4. Discussion of regulatory requirements for corrosion protection as follows:

- (i) Federal and state of Alabama corrosion protection requirements;
- (ii) Qualifications required to perform corrosion protection work as a corrosion expert and cathodic protection tester;
- (iii) Integrity assessment prior to addition of cathodic protection such as internal inspection and acceptable alternatives;
- (iv) Corrosion protection upgrading options; and
- (v) Monitoring and recordkeeping requirements.

5. Discussion of standards and recommended practices such as NACE International, American Petroleum Institute, Petroleum Equipment Institute, National Fire Prevention Association, American Society for Testing and Materials, and Steel Tank Institute.

6. Hands-on field inspection and testing session featuring galvanic versus impressed current systems, reference electrodes, rectifiers, instrumentation, test stations, structure-to-soil and continuity testing, what to look for to determine compliance with cathodic requirements, cathodic protection system problems, and what to do if cathodic protection system does not meet minimum criteria.

(i) "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

(j) "Compatible" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the underground storage tank system under conditions likely to be encountered in the UST.

(k) "Connected piping" means all underground piping including valves, elbows, joints, flanges and flexible connectors attached to an underground storage tank system through which regulated substances flow. For the purpose of determining how much underground piping is connected to any individual UST system, the underground piping that joins two UST systems should be allocated equally between them.

(l) "Consumptive use" with respect to heating oil means consumed on the premises.

(m) "Containment sump" means a liquid-tight container that protects the environment by containing leaks and spills of regulated substances from underground piping, dispensers, pumps and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of the UST (UST top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the underground piping run (transition or intermediate sump).

(n) "Contaminant" means a regulated substance which has been released into the environment.

(o) "Continuous interstitial monitoring" means performing interstitial monitoring on an uninterrupted basis.

(p) "Corrective action limits (CAL)" means those contaminant concentrations which must be achieved in order for corrective action to be deemed complete by the Department.

(q) "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 underground storage tanks. Such a person must be accredited or certified as being qualified by NACE International or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal underground storage tanks. Such person is qualified to test cathodic protection systems without becoming certified and recertified as defined in subparagraph (h) of this rule.

(r) "Critical junctures" means the steps taken to install, close, and repair UST systems which, if done improperly, could result in the greatest risk of a release.

(s) "Department" means the Alabama Department of Environmental Management.

(t) "Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., underground storage tank from underground piping).

(u) "Director" means the Director of the Alabama Department of Environmental Management.

(v) "Dispenser" means equipment located aboveground that dispenses regulated substances from the UST system.

(w) "Dispenser system" means the dispenser as defined in paragraph (v) of this rule and the equipment necessary to connect the dispenser to the underground storage tank system.

(x) "Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

(y) "Excavation zone" means the volume containing the underground storage tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

(z) "Existing tank system" means an underground storage tank system used to contain an accumulation of regulated substances or for which installation has commenced before April 5, 1989. Installation is considered to have commenced if:

1. The owner or operator has obtained all federal, state of Alabama, and local approvals or permits necessary to begin physical construction of the site or installation of the underground storage tank system; and if,

2. Either a continuous on-site physical construction or installation program has begun; or,

3. The owner or operator has entered into contractual obligations--which cannot be cancelled or modified without substantial loss--for physical construction at the site or installation of the underground storage tank system to be completed within a reasonable time.

(aa) "Farm tank" is an underground storage tank located on a tract of land devoted to the production of crops or raising animals, including fish, and

associated residences and improvements. A farm tank must be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations.

(bb) "Field-constructed tank" means a tank constructed in the field. For example, a tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed.

(cc) "Flow-through process tank" is an underground storage tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process underground storage tanks do not include underground storage tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

(dd) "Free product" refers to a regulated substance that is present as a non-aqueous phase liquid (e.g., liquid not dissolved in water).

(ee) "Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

(ff) "Groundwater" means water below the land surface in a zone of saturation.

(gg) "Hazard quotient" means a ratio of the level of exposure of a chemical over a specified time period to a "reference dose", as defined in subparagraph (jjj) of this rule, for that chemical of concern derived for a similar exposure period.

(hh) "Hazardous substance" means a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under Division 14 of the ADEM Administrative Code) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

(ii) "Hazardous substance UST system" means an underground storage tank system that contains any substance defined as a hazardous substance in subparagraph (hh) of this rule.

(jj) "Health Advisory Level" or "(HAL)-A" means a level established by the United States Environmental Protection Agency which provides the level of a contaminant in drinking water at which adverse non-carcinogenic health effects would not be anticipated with a margin of safety.

(kk) "Heating oil" means petroleum that is No. 1, No. 2, No. 4--light, No. 4--heavy, No. 5--light, No. 5--heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels

when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

(ll) "Hydraulic lift tank" means an underground storage tank holding hydraulic fluid for a closed-loop mechanical system that used compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

(mm) "~~Individual-Incremental~~ Excess Lifetime Cancer Risk" or "IELCR" means the increase over background in an individual's probability of getting cancer over a lifetime due to exposure to ~~a chemical~~ hazardous substances.

(nn) "Interstitial monitoring" is a method of routinely checking at regular intervals for leaks into the space between the primary wall of an UST or underground piping and an outer secondary barrier.

(oo) "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

(pp) "Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product.

(qq) "Maximum Contaminant Level" or "MCL" means a level established by the United States Environmental Protection Agency which is the maximum permissible level of a contaminant in drinking water that is delivered to any user of a public water system.

(rr) "Motor fuel" means a complex blend of hydrocarbons typically used for combustion in the operation of a motor or engine such as motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, biodiesel, or any blend containing one or more of these substances (for example: motor gasoline blended with alcohol).

(ss) "New dispenser system" is either a newly manufactured or operational dispenser and the equipment necessary to connect the dispenser to the underground storage tank system, which includes check valves, shear valves, unburied risers, flex connectors, or other transitional components which connect the dispenser to the underground piping, which is installed for the first time or at a new location on August 6, 2007 and thereafter.

(tt) "New UST system" means an underground storage tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced on or after April 5, 1989. See also "Existing tank system" in subparagraph (z) of this rule.

(uu) "Noncommercial purposes" with respect to motor fuel means not for resale.

(vv) "On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

(ww) "Operational life" refers to the period beginning when installation of the underground storage tank system has commenced until the time the underground storage tank system is properly closed under rules 335-6-15-.34 through 335-6-15-.37.

(xx) "Operator" means any person in control of, or having responsibility for, the daily operation of the UST system.

(yy) "Operator, Class A" means any person who is, or is employed by, the underground storage tank owner, underground storage tank facility owner, or lessee, who has primary responsibility to operate and maintain underground storage tank systems. The Class A operator's responsibilities include managing resources and personnel, such as establishing work assignments to achieve and maintain compliance with Department underground storage tank regulatory requirements. In general, this person focuses on the broader aspects of the regulations and standards necessary to operate and maintain underground storage tank systems in accordance with this chapter. For example, this person typically ensures that responsible person(s):

1. Are trained to operate and maintain underground storage tank systems and keep records in accordance with the requirements in this chapter;
2. Operate and maintain underground storage tank systems in accordance with the requirements in this chapter;
3. Maintain records in accordance with the requirements of this chapter;
4. Respond to emergencies caused by releases or spills from underground storage tank systems in accordance with the requirements of this chapter; and
5. Make financial responsibility documents available to the Department as required by rules 335-6-15-.13 and 335-6-15-.43.

(zz) "Operator, Class B" means any person who is, or is employed by, the underground storage tank owner, underground storage tank facility owner, or lessee, who implements underground storage tank regulatory requirements and standards in the field in accordance with this chapter. This person implements day-to-day aspects of operating, maintaining, and recordkeeping for underground storage tank systems at one or more facilities. For example, this person typically monitors, maintains, and ensures:

1. Compliance with release detection, recordkeeping, and reporting requirements;



2. Compliance with release prevention, recordkeeping, and reporting requirements;

3. Compliance with performance standards for all relevant equipment; and

4. Training of responsible persons to respond to emergencies caused by releases or spills in accordance with the requirements of this chapter.

(aaa) "Operator, Class C" means any person who is, or is employed by, the underground storage tank owner, underground storage tank facility owner, or lessee, who is generally the first line of response to events indicating emergency conditions. This person is responsible for responding to alarms or other indications of emergencies caused by spills or releases from underground storage tank systems, and for notifying the Class B or Class A operator and appropriate emergency responders when necessary. Not all employees of the facility are necessarily Class C operators. This person typically:

1. Controls or monitors the dispensing or sale of regulated substances; or

2. Is responsible for initial response to alarms or releases.

(bbb) "Overfill release" is a release that occurs when an underground storage tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

(ccc) "Owner" means: in the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and in the case of any UST system in use before November 8, 1984, but no longer in use on that date, the present owner of the underground storage tank and any person who owned such underground storage tank immediately before the discontinuation of its use.

(ddd) "Person" means an individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government.

(eee) "Petroleum" means crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), petroleum-based substances comprised of a complex blend of hydrocarbons or a mixture of petroleum with de minimis concentrations of other regulated substances such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

(fff) "Petroleum UST system" means an underground storage tank system that contains "petroleum" as defined in subparagraph (eee) of this rule.

(ggg) "Pipe" or "Piping" means a hollow cylinder or tubular conduit that is constructed of non-earthen materials that routinely contains and conveys regulated substances from the underground storage tank(s) to the dispenser(s) or other end-use equipment. Such "pipe" or "piping" includes any elbows, couplings, unions, valves, or other in-line fixtures that contain and convey regulated substances from the underground storage tank(s) to the dispenser(s). This definition excludes vent, vapor recovery, or fill lines that do not routinely contain regulated substances.

(hhh) "Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

(iii) "Red tag" means a tamper resistant device or mechanism which can be placed on an underground storage tank's fill pipe that clearly identifies the underground storage tank as being prohibited from accepting regulated substance delivery. The device or mechanism is easily visible to the regulated substance deliverer and clearly conveys that it is unlawful to deliver to, or accept product into the underground storage tank.

(jjj) "Reference dose" means an estimate of a daily exposure to the general human population that is likely to be without an appreciable risk of deleterious effects during a lifetime of exposure.

(kkk) "Regulated substance" means any substance defined as a hazardous substance in subparagraph (hh) of this rule or any substance defined as petroleum in subparagraph (eee) of this rule.

(lll) "Regulated substance deliverer" means any person who delivers a regulated substance to an underground storage tank.

(mmm) "Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into groundwater, surface water or subsurface soils.

(nnn) "Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or a leak has occurred into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

(ooo) "Repair" means to restore to proper operating condition an underground storage tank, underground pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment, or other UST system component that has caused or could cause a release of product from the UST system or has failed to function properly, that is not "routine maintenance" as defined in subparagraph (qqq) of this rule.

(ppp) "Residential tank" is an underground storage tank located on property used primarily for dwelling purposes.

(qqq) "Routine maintenance" means an activity designed to maintain an UST system that is completed without breaking concrete, asphalt, or other paved surface and/or ground, and that is not a "repair" as defined in subparagraph (ooo) of this rule, installation, or closure. This includes work on or replacing spill catchment basins, automatic line leak detectors, automatic tank gauge probes, suction or submersible pumps, overflow prevention devices, drop tubes, check valves, underground storage tank fill adaptors, caps, lids, and manhole covers, fuses, dispenser components above shear valve, all without breaking concrete, asphalt or other paved surface, and/or ground.

(rrr) "SARA" means the Superfund Amendments and Reauthorization Act of 1986.

(sss) "Secondary containment" or "Secondarily contained" means a release prevention and release detection system for an underground storage tank or underground piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring of underground piping.

(ttt) "Septic tank" is a water-tight covered underground receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the underground tank are pumped out periodically and hauled to a treatment facility.

(uuu) "Significant noncompliance requiring delivery prohibition" means a failure of an owner or operator to comply with any of the following requirements of this chapter that will result in the Department prohibiting delivery of regulated substances to an underground storage tank facility, after being given notice: installation of spill prevention, overflow prevention, leak detection, or corrosion protection equipment on an underground storage tank system as required by rules 335-6-15-.03, 335-6-15-.04, 335-6-15-.06, 335-6-15-.07, 335-6-15-.09 through 335-6-15-.12, and 335-6-15-.14 through 335-6-15-.18.

(vvv) "Significant noncompliance subject to delivery prohibition" means a failure of an owner or operator to comply with any of the following requirements of this chapter that may result in the Department prohibiting delivery of regulated substances to an underground storage tank facility, after being given notice and appropriate time by the Department to comply:

1. Notification requirements for an underground storage tank system with the Department in accordance with rule 335-6-15-.05;

2. Operation and/or maintenance of spill prevention, overflow prevention, leak detection, or corrosion protection equipment on an underground storage tank system as required by rules 335-6-15-.03, 335-6-15-.04, 335-6-15-.06, 335-6-15-.07, 335-6-15-.09, 335-6-15-.10, and 335-6-15-.14 through 335-6-15-.18;

3. Installation, operation and/or maintenance of under dispenser containment or submersible pump containment on an underground storage tank system as required by rules 335-6-15-.03, 335-6-15-.06, and 335-6-15-.09;

4. Compatibility, and repair requirements on an underground storage tank system as required by rules 335-6-15-.11 and 335-6-15-.12;

5. Submittal of documentation or reports relating to spill prevention, overfill prevention, leak detection, corrosion protection, under dispenser containment, submersible pump containment, compatibility and repairs for an underground storage tank system within the time frame required by this chapter or within a reasonable time frame upon request by the Department;

6. Payment of the yearly underground storage tank regulation fee in accordance with rule 335-6-15-.42;

7. Taking appropriate action in response to a release or suspected release of product as outlined by rules 335-6-15-.20 through 335-6-15-.25; or

8. Investigation, and/or clean up a release from an underground storage tank system in a timely manner, in accordance with rules 335-6-15-.26 through 335-6-15-.30 and 335-6-15-.35.

9. Training of operators of UST systems in accordance with rule 335-6-15-.46.

10. Use of an individual or individuals certified by a Department approved certifying organization to exercise supervisory control over installation, closure, and repair of UST systems in accordance with rule 335-6-15-.47.

(www) "Storm-water or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

(xxx) "Surface impoundment" is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.

(yyy) "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.

(zzz) "Training program" means any program that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator through testing, practical demonstration, or another approach acceptable to the Department regarding requirements for UST systems that meet the requirements of rule 335-6-15-.46.

(aaaa) "Under dispenser containment" means containment underneath a dispenser system designed to prevent leaks from the dispenser and underground piping within or above the under dispenser containment from reaching soil or groundwater.

(bbbb) "Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

(cccc) "Underground release" means any belowground release.

(dddd) "Underground storage tank" or "UST" means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

1. Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

2. Tank used for storing heating oil for consumptive use on the premises where stored;

3. Septic tank;

4. Pipeline facility (including gathering lines):

(i) Which is regulated under chapter 601 of Title 49, or

(ii) Which is an intrastate pipeline facility regulated under state laws as provided in chapter 601 of Title 49, and which is determined by the Secretary of Transportation to be connected to a pipeline, or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline, or

(iii) State of Alabama laws comparable to the provisions of law in subparagraph (dddd)4.(i) or (ii) above;

5. Surface impoundment, pit, pond, or lagoon;

6. Storm-water or wastewater collection system;

7. Flow-through process tank;

8. Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

9. Storage tank situated in an underground area (such as a basement cellar, mine working, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

10. Other tanks exempted by the administrator of the United States Environmental Protection Agency; and

11. Piping connected to any of the above exemptions.

(eeee) "Underground storage tank facility" is a single site or location containing one or more underground storage tank systems.

(ffff) "Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overflow controls to improve the ability of an underground storage tank system to prevent the release of product.

(gggg) "UST system" or "Underground Storage Tank system" means an underground storage tank, connected to and including underground piping, underground ancillary equipment, and containment system, if any, as well as underground vent, vapor recovery, or fill lines.

(hhhh) "Wastewater treatment tank" means an underground tank that is designated to receive and treat an influent wastewater through physical, chemical, or biological methods.

(iiii) "Waters" means all waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state of Alabama, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce.

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**335-6-15-.03 Applicability.**

(1) The requirements of this chapter apply to all owners and operators of an UST system as defined in rule 335-6-15-.02 except as otherwise provided for in paragraphs (2) and (3) of this rule.

(a) Previously deferred UST systems. UST systems with field-constructed tanks, UST systems with airport hydrant fuel distribution systems, and UST systems that store fuel solely for use by emergency power generators must meet the requirements of this part as follows:

1. UST systems with field-constructed tanks and UST systems with airport hydrant fuel distribution systems must meet the requirements in rule 335-6-15-.48.

2. UST systems that store fuel solely for use by emergency power generators installed before August 6, 2007 must meet rules 335-6-15-.14 through 335-6-15-.19 on or before December 8, 2020.

3. UST systems that store fuel solely for use by emergency power generators installed on or after August 6, 2007 must meet all applicable requirements of rules 335-6-15-.14 through 335-6-15-.19 at installation.

4. If UST systems installed before August 6, 2007 that store fuel solely for use by emergency power generators have new underground piping installed on or after August 6, 2007, the new underground piping is subject to all the rules in this chapter.

(2) Exclusions. The following UST systems are excluded from the requirements of this chapter:

(a) Any UST system holding hazardous wastes listed or identified under Division 14 of the ADEM Administrative Code, or a mixture of such hazardous wastes and other regulated substances.

(b) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under chapter 335-6-5 or 335-6-6 of the ADEM Administrative Code.

(c) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(d) Any UST system whose capacity is 110 gallons or less.

(e) Any UST system that contains a de minimis concentration of regulated substances.

(f) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(3) Partial Exclusions. The following UST systems are only subject to rules 335-6-15-.04, 335-6-15-.20 through 335-6-15-.32, and 335-6-15-.43:

(a) Wastewater treatment tank systems not covered in subparagraph (2)(b) of this rule;

(b) Aboveground storage tanks associated with:

1. UST systems with airport hydrant fuel distribution systems regulated under rule 335-6-15-.48; and

2. UST systems with field-constructed tanks regulated under rule 335-6-15-.48;

(c) Any UST system containing radioactive materials that are regulated under the Atomic Energy Act of 1954 (42 USC 2011 and following); and

(d) Any UST system that is part of an emergency generator system at nuclear power generation facilities licensed by the Nuclear Regulatory Commission and subject to Nuclear Regulatory Commission requirements regarding design and quality criteria, including but not limited to 10 CFR part 50.

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**335-6-15-.07 Upgrading of Existing UST Systems.** Owners and operators must permanently close (in accordance with rules 335-6-15-.34 through 335-6-15-.39) any UST system that does not meet the new UST system performance standards in rule 335-6-15-.06 or has not been upgraded in accordance with subparagraphs (b) through (d) of this rule. This does not apply to previously deferred UST systems described in rule 335-6-15-.48 and where an upgrade is determined to be appropriate by the Department.

(a) Alternatives Allowed. All existing UST systems must comply with one of the following requirements:

1. New UST system performance standards under rule 335-6-15-.06;
2. The upgrading requirements in subparagraphs (b) through (d) of this rule; or
3. Closure requirements under rules 335-6-15-.34 through 335-6-15-.39, including applicable requirements for corrective action under rules 335-6-15-.25 through 335-6-15-.32~~±~~.

(b) Underground Storage Tanks Upgrading Requirements. Metal underground storage tanks must have been cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory that meet the requirements of rule 335-6-15-.06(a)2.(ii), (iii) and (iv), and have the integrity of the underground storage tank ensured using one of the following methods:

1. The underground storage tank was internally inspected and assessed to ensure that the tank was structurally sound and free of corrosion holes prior to installing the cathodic protection system; or
2. The underground storage tank had been installed for less than 10 years and is monitored for releases at least every 30 days in accordance with rule 335-6-15-.17(d) through (i); or
3. The underground storage tank had been installed for less than 10 years and was assessed for corrosion holes by conducting two tightness tests that meet the requirements of rule 335-6-15-.17(c). The first tightness test must have been conducted prior to installing the cathodic protection system. The second tightness test must have been conducted between three and six months following the first operation of the cathodic protection system; or
4. The underground storage tank was assessed for corrosion holes by a method that is determined by the Department to prevent releases in a manner that is no less protective of human health and the environment than the requirements of subparagraphs (b)1. through 3. of this rule.

(c) Piping Upgrading Requirements. Metal underground piping that routinely contains regulated substances and is in contact with the ground, as well as the metal outer wall of double wall underground piping which is in contact with the ground, must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory, and must meet the requirements of rule 335-6-15-.06(b)2.(ii), (iii), and (iv).

(d) Spill and Overfill Prevention Equipment. To prevent spilling and overfilling associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in rule 335-6-15-.06(c).

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** August 6, 2007; **Amended:** January 16, 2012; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.08 Plans and Specifications.**

(1) Submission of Plans. The Department may require the submission of plans, specifications, and other technical data pursuant to rule 335-6-15-.06, 335-6-15-.07, or any other requirement by the Department relating to the construction of UST systems, upgrading of UST systems, installation of release detection equipment, corrosion protection measures, or engineering design related to the implementation of a corrective action plan.

(a) Plans and specifications shall be submitted at least 30 days prior to the anticipated date of construction or installation.

(b) Where plans and specifications are not required, a notification of installation shall be submitted 30 days prior to the anticipated date of installation.

(c) Plan and specification submissions shall be in a form which is acceptable to the Department.

(d) The Department may require modification of submitted plans and specifications, where necessary, to demonstrate compliance with applicable requirements.

(2) Preparation of Plans, Specifications, and Technical Data. Plans, specifications, and technical data submitted to the Department for review shall be signed and sealed by an Alabama licensed professional engineer or an Alabama licensed professional geologist, as appropriate, bear the seal or number of a professional engineer, in accordance with StateAlabama law concerning engineering-these practices, and who is competent to perform work in thesethis fieldsof engineering.

(3) Plans and specifications submitted for construction and upgrading of UST systems shall, where applicable, adequately describe:

(a) Site sketch with boundaries and structures approximately to scale.

(b) Underground storage tank excavation dimensions and location.

(c) Underground storage tank capacity, dimensions, materials of construction, and material to be stored, and whether of single or double wall construction.

(d) Type and size of backfill material.

(e) Depth of backfill to be placed under the underground storage tank.

(f) Water table data for the site, including the annual high and low water table elevations as determined from nearby water supply wells, piezometers, or other available hydrogeologic data.

(g) Supports and anchorage design if applicable.

(h) Underground piping dimensions, materials of construction, layout, location of dispensers, and slope of underground piping for suction systems.

(i) Release detection method to be used, to include:

1. Number, location and construction details for any monitoring wells, whether for groundwater monitoring, vapor monitoring or monitoring of an interstitial space.

2. Description of and manufacturer's performance specifications for any continuous monitoring equipment to be used where required by the Department.

3. For non-continuous monitoring, (other than manual sampling of groundwater monitoring wells), a description of and manufacturer's performance specifications for the type of equipment to be used where required by the Department.

4. Manufacturer specifications for any secondary barrier to be used in interstitial monitoring.

(j) Wiring and conduit associated with monitoring systems.

(k) Information regarding the cathodic protection method to be used, to include:

1. Design plans and specifications for field installed cathodic protection systems shall be submitted to the Department for approval at least 30 days prior to the anticipated date of installation and must include, at a minimum:

(i) Type of cathodic protection, galvanic or impressed current.

(ii) Test or monitoring station for cathodic protection system.

(iii) Location and weight of sacrificial anodes.

(iv) The corrosion expert responsible for the design of a field installed cathodic protection system.

(v) Calculations of the:

(I) Surface area to be protected,

(II) Current required,

(III) Number of anodes required, and

(IV) Rectifier rating.

(vi) Material list including a description of the:

- (I) Rectifier,
- (II) Anodes,
- (III) Anode wiring,
- (IV) Negative ground wires,
- (V) Grounding mechanism,
- (VI) Shunt box, and
- (VII) Other materials to be used.
- (vii) Drawing providing the location of the:
  - (I) Tanks,
  - (II) Anodes,
  - (III) Anode wiring,
  - (IV) Ground wiring,
  - (V) Rectifier box, and
  - (VI) Shunt box.
  - (l) Spill and overflow containment devices.
- (m) For groundwater monitoring well systems, the hydraulic conductivity of the soils in which the monitoring wells will be placed.
- (n) Type of secondary containment, where applicable.
- (o) Whether or not the UST system will be within 300 feet of a private domestic water supply or 1000 feet of a public water supply well.
- (p) Any other information that may be required by the Department.
- (4) Existing Systems. When plans and specifications are submitted for existing systems, all available information should be submitted regarding the above items.
- (5) Modifications or Alterations. Any proposed modification or alteration of plans, specifications, or technical data previously submitted to and reviewed by the Department which could affect the UST system's compliance with this chapter must also be forwarded to the Department for review.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, David Batchelor, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, §§ 22-36-3, 22-36-4.

**History:** April 5, 1989.

**Amended:** August 6, 2007; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.09 Operation, Maintenance, and Testing or Inspection of Spill and Overfill Prevention Equipment and Containment Systems; and Walkthrough Inspections.**

(1) Owners and operators of UST systems must comply with the following operation, maintenance, and testing or inspection requirements for spill prevention equipment, overfill prevention equipment, and containment sumps and sensors to ensure that releases due to leaking, spilling or overfilling do not occur; submit testing and inspection results in accordance with rule 335-6-15-.13(a)5.; and keep testing and inspection records in accordance with rule 335-6-15-.13(b)5.; unless a UST system is temporarily closed in accordance with rule 335-6-15-.33.

(a) Spill Prevention Equipment. Spill prevention equipment must be periodically checked in accordance with the walkthrough inspection requirements in paragraph (2) of this rule and meet the following requirements:

1. Single walled spill prevention equipment shall be tested for leakage to ensure the equipment is liquid tight by using vacuum, pressure, or liquid testing at least once every three years, or upon repair or replacement, using one of the following options:

(i) Testing requirements developed by the manufacturer (Note: Owners and operators may use this option only if the manufacturer has developed requirements);

(ii) Test methods from a code of practice developed by a nationally recognized association or independent testing laboratory; or

(iii) Testing requirements determined by the Department to be no less protective of human health and the environment than the testing requirements listed in subparagraphs (1)(a)1.(i) and (ii) of this rule.

2. Double walled spill prevention equipment with an interstitial space shall have the integrity of both walls periodically checked in accordance with the walkthrough inspection requirements in paragraph (2) of this rule. If this periodic checking is discontinued, owners and operators must begin using one of the testing options provided for single walled spill catchment basins in subparagraph (1)(a)1. of this rule and conduct a test within 30 days.

3. Spill prevention equipment must be emptied before the transfer of regulated substance to the underground storage tank so that all the volume is available to contain a spill. If a breach in the spill prevention equipment is visible or if a spill prevention equipment leak test fails, it must be repaired or replaced, and retested prior to receiving any further deliveries of a regulated substance.

4. When a regulated substance is being released or is suspected to have been released from spill prevention equipment to the surrounding surface or subsurface, notify the Department of a suspected release in accordance with rule 335-6-15-.20.

(b) Overfill Prevention Equipment. Overfill prevention equipment in use before December 8, 2017, shall be inspected not later than December 8, 2020 and at least once every three years thereafter; when brought into use on or after December 8, 2017, shall be inspected upon installation and at least once every three years thereafter; and must meet the following inspection requirements:

1. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in rule 335-6-15-.06(c)2. and will activate when regulated substance reaches that level. Inspections must be conducted using one of the following options:

(i) Inspection requirements developed by the manufacturer (Note: Owners and operators may use this option only if the manufacturer has developed requirements);

(ii) Inspection methods from a code of practice developed by a nationally recognized association or independent testing laboratory; or

(iii) Inspection requirements determined by the Department to be no less protective of human health and the environment than the inspection requirements listed in subparagraphs (1)(b)1.(i) and (ii) of this rule.

2. Owners and operators must ensure that the volume available in the underground storage tank is greater than the volume of product to be transferred to the underground storage tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

(c) Under Dispenser, Submersible Pump, and Other UST System Containment Sumps. These containment sumps must be periodically checked in accordance with the walkthrough inspection requirements in paragraph (2) of this rule and meet the following requirements:

1. When a regulated substance is discovered in a containment sump:

(i) Remove the regulated substance within 24 hours; any regulated substance which is removed must be disposed of in accordance with all state of Alabama requirements; and

(ii) Repair or replace any necessary equipment to prevent further leakage of regulated substance into the containment sump within a time period acceptable to the Department, and immediately after repair or replacement, test the sump for leakage to ensure it is liquid tight in accordance with one of the vacuum, pressure, or liquid testing options provided in subparagraphs (1)(a)1.(i),(ii), (iii) of this rule within a time period acceptable to the Department.

2. When a regulated substance is being released or is suspected to have been released from a containment sump to the surrounding surface or subsurface:

(i) Shut off the submersible pump; and



(ii) Notify the Department of a suspected release in accordance with rule 335-6-15-.20.

3. Containment sumps used for interstitial monitoring of underground piping must be maintained so that they continuously remain free of water, regulated substance and debris,

4. The operation of any liquid sensors in a containment sump used for interstitial monitoring of underground piping must be tested annually to ensure that they are working properly. Beginning December 8, 2017, testing must be conducted in accordance with one of the testing options provided in subparagraphs (1)(a)1.(i),(ii), (iii) of this rule.

5. Breaches discovered in a containment sumps used for interstitial monitoring of underground piping which may result in a release of a regulated substance must immediately be repaired or the containment sump replaced. After repair or replacement, the containment sump must be tested using a vacuum, pressure or liquid method in accordance with one of the options provided in subparagraphs (1)(a)1.(i), (ii), or (iii) of this rule to ensure the sump is liquid tight.

6. Beginning December 8, 2020 for UST systems in use before December 8, 2017 and beginning upon installation for UST systems brought into use on or after December 8, 2017, all containment sumps used for interstitial monitoring of underground piping must prevent releases to the environment by meeting one of the following:

(i) To ensure single walled containment sumps used for interstitial monitoring of underground piping are liquid tight, those installed prior to December 8, 2017 must have an initial test not later than December 8, 2020 and must be tested at least once every three years thereafter, and those brought into use on or after the December 8, 2017 must be tested upon installation and be tested at least once every three years thereafter. Testing must be conducted using a vacuum, pressure, or liquid method in accordance with one of the options provided in subparagraphs (1)(a)1.(i), (ii), or (iii) of this rule; or

(ii) When containment sumps used for interstitial monitoring of underground piping are double walled, the integrity of both walls must be periodically checked in accordance with the walkthrough inspection requirements in subparagraph (2) of this rule. If this periodic checking is discontinued, owners and operators must begin using one of the testing options provided for single walled containment sumps in subparagraph (1)(c)6.(i) of this rule and conduct a test within 30 days.

(2) Walkthrough Inspections. To properly operate and maintain UST systems, owners and operators of UST systems must conduct walkthrough inspections beginning not later than October 13, 2018 and thereafter. Conduct walkthrough inspections in accordance with either subparagraphs (2)(a), and

(2)(b) or (c) of this rule and keep inspection records in accordance with rule 335-6-15-.13(b)11., unless a UST system is temporarily closed in accordance with rule 335-6-15-.33.

(a) Conduct a walkthrough inspection that, at a minimum, checks the following equipment as specified in subparagraphs (2)(a)1. and 2. of this rule:

1. Every 30 days (Exception: spill prevention equipment at UST systems receiving deliveries at intervals greater than every 30 days may be checked prior to each delivery):

(i) Visually check spill prevention equipment for damage; remove liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to make sure it is securely on the fill pipe; and for double walled spill prevention equipment with interstitial monitoring, also check the integrity of both walls by checking for leakage in the interstitial space, and

(ii) Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present; and ensure records of release detection testing are reviewed, passing and current, and

2. Annually:

(i) Visually check all containment sumps for damage or leaks to the containment area, or releases to the environment, and remove liquid or debris; and for double walled sumps with interstitial monitoring, also check the integrity of both walls by checking for leakage in the interstitial space, and

(ii) Check hand held release detection equipment devices such as tank gauge sticks or groundwater bailers for operability and serviceability;

(b) Conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that checks equipment comparable to that indicated in subparagraph (2)(a) of this rule; or

(c) Conduct operation and maintenance walkthrough inspections developed by the Department that checks equipment comparable to that indicated in subparagraph (2)(a) of this rule.

(3) The owner and operator must report, investigate, and clean up any leaks, spills and overfills in accordance with rule 335-6-15-.23.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Latoya Hall](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** Effective: April 5, 1989; **Amended:** Effective: August 6, 2007;

**Amended:** Effective: January 16, 2012; **Amended:** Effective: April 1, 2014;

**Amended:** Effective: December 8, 2017; **Amended:** Filed: October 23, 2018;  
Effective: December 7, 2018 **Proposed:** November 18, 2021.

**335-6-15-.10 Operation and Maintenance of Corrosion Protection.** All owners and operators of metal UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented until the UST system is permanently closed or undergoes change-in-service in accordance with rule 335-6-15-.34:

(a) All corrosion protection systems must be operated, maintained, inspected and tested to continuously provide and demonstrate corrosion protection of the metal components of that portion of the underground storage tank and underground piping that routinely contain regulated substances and are in contact with the ground, as well as the metal outer wall of double wall underground storage tanks and underground piping which are in contact with the ground. Operating UST systems for which impressed current cathodic protection has not been adequately operated and maintained to provide corrosion protection for a continuous period of 12 months must be either:

1. Internally inspected and found to be structurally sound in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory, or
2. Permanently closed within 90 days from the end of this 12-month period in accordance with rules 335-6-15-.34 and 335-6-15-.35.

(b) All UST systems equipped with cathodic protection systems must be inspected and tested for proper operation by a qualified cathodic protection tester who maintains current certification in accordance with the requirements in rule 335-6-15-.02(hg), in accordance with the following requirements:

1. Frequency. All cathodic protection systems must be inspected and tested within 30 days of installation and at least every three years thereafter; and
2. Inspection and Testing Criteria. The criteria that are used to determine that cathodic protection is adequate as required by subparagraphs (a) and (b) of this rule must be in accordance with the most current version of codes of practice established by NACE International and STI/SPFA (Steel Tank Institute/Steel Plate Fabricators Association).

(c) UST systems with impressed current cathodic protection systems must also be inspected every 60 days to ensure the equipment is operating properly.

(d) For UST systems using cathodic protection, records of the operation of the cathodic protection must be maintained in accordance with rule 335-6-15-.13 to demonstrate compliance with the performance standards in this section. These records must provide the following:

1. The results of the last three inspections or checks required in subparagraph (c) of this rule; and

2. The results of testing from the last two tests required in subparagraph (b) of this rule.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** November 24, 2009; **Amended:** January 16, 2012; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.12 Repairs Allowed.** Owners and operators of UST systems must ensure the repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory and in accordance with the requirements in rule 335-6-15-.47.

(b) Repairs to fiberglass-reinforced plastic underground storage tanks must be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

(c) Metal underground pipe sections and fittings that have released product as a result of corrosion or other damage must be permanently closed in accordance with rules 335-6-15-.34 through 335-6-15-.37 and new underground piping installed in accordance with rule 335-6-15-.06(b). Repairs to nonmetallic fiberglass-reinforced plastic (rigid) or nonmetallic thermoplastic (flexible) underground piping and fittings must be made in accordance with the manufacturer's specifications. Materials used to repair the underground piping must be in accordance with rule 335-6-15-.06(b)1.

(d) Repairs may be made to existing underground piping only if one repair of less than 5 ft can be made to one run of underground piping within a 30 day period. Otherwise, for a given underground piping run, underground piping must be installed in accordance with rule 335-6-15-.06(b).

(e) Repaired underground storage tanks and underground piping must be tightness tested in accordance with rules 335-6-15-.17(c) and 335-6-15-.18(b) prior to returning the underground storage tanks or underground piping to service or within 30 days following the date of the completion of the repair, whichever comes first.

(f) Repairs to secondary containment areas of underground storage tanks and underground piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of underground piping must have the secondary containment tested for tightness in accordance with the manufacturer's instructions or a code of practice developed by a nationally recognized association or independent testing laboratory within 30 days following the date of completion of the repair.

(g) Within 30 days following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with rule 335-6-15-.10(b) and (c) to ensure that it is operating properly.

(h) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or

inspected, as appropriate, in accordance with rule 335-6-15-.~~09(1)(a) and (b)13(b)2~~. to ensure it is operating properly.

(i) UST system owners and operators must maintain records in accordance with rule 335-6-15-.13(b)2. for each repair until the UST system is permanently closed or undergoes a change-in-service in accordance with rules 335-6-15-.34 through 335-6-15-.37.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** January 10, 2006; **Amended:** August 6, 2007; **Amended:** January 16, 2012; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.14 General Release Detection Requirements for All UST Systems.**

(1) Owners and operators of UST systems must provide a method, or combination of methods, of release detection that:

(a) Can detect a release from any portion of the underground storage tank and the connected underground piping that routinely contains product;

(b) Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition;

(c) Is operated and maintained, and electronic and mechanical components are tested for proper operation, in accordance with one of the following: manufacturer's instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements determined by the Department to be no less protective of human health and the environment than the two options listed above. A test of the proper operation must be performed at least annually and must cover the following components and criteria:

1. Automatic Tank Gauge and Other Controllers. Beginning on October 13, 2018 and thereafter; test alarm, verify system configuration, test battery backup;

2. Probes and Sensors. Beginning on October 13, 2018 and thereafter; inspect for residual buildup, ensure floats move freely, ensure shaft is not damaged, ensure cables are free of kinks and breaks, test alarm operability and communication with controller, ensure that they are positioned properly;

3. Automatic Line Leak Detector. Test operation to meet criteria in rule 335-6-15-.18(a) by simulating a leak;

4. Vacuum Pumps and Pressure Gauges. Beginning on October 13, 2018 and thereafter; ensure proper communication with sensors and controller; and

5. Hand-held Electronic Sampling Equipment Associated with Groundwater and Vapor Monitoring. Beginning on October 13, 2018 and thereafter; ensure proper calibration and operation.

6. Any release detection component that fails an operational test must be repaired or replaced and retested within 30 days of the repair.

(d) Meets the performance requirements in rules 335-6-15-.17, 335-6-15-.18, or 335-6-15-.48, as applicable, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, the methods must be capable of detecting the leak rate or quantity specified for that method in rules 335-6-15-.17(b), (c), (d), (h) and (i),



335-6-15-.18(a) and (b), and 335-6-.48 with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(2) When a release detection method operated in accordance with the performance standards in rules 335-6-15-.17, 335-6-15-.18, or 335-6-15-.48 indicates a release may have occurred, owners and operators must notify the Department in accordance with rule 335-6-15-.20.

(3) Any UST system that cannot apply a method of release detection that complies with the requirements of this chapter must temporarily close the UST system in accordance with rule 335-6-15-.33 and must permanently close the UST system in accordance with rules 335-6-15-.34 through 335-6-15-.37 except as follows:

(a) For UST systems storing fuel solely for the use of emergency power generators installed before August 6, 2007, paragraph (3) of this rule applies beginning on December 8, 2020 and thereafter. For UST systems with field-constructed tanks, and UST systems with airport hydrant fuel distribution systems, paragraph (3) of this rule applies beginning on October 13, 2018 and thereafter.

(4) Owners or operators of UST systems storing fuel solely for the use of emergency power generators installed before August 6, 2007, UST systems with airport hydrant fuel distribution systems, and UST systems with field-constructed tanks shall submit to the Department a description of the type of release detection method or methods which will be used at each site at which the UST system is located. This description and any required plans and specifications required by rule 335-6-15-.08 shall be submitted 30 days prior to the implementation of release detection requirements for these systems as described in rules 335-6-15-.03(1)(a)1. and 2.

(5) Release detection on UST systems employing vapor monitoring, groundwater monitoring, or interstitial monitoring using a secondary barrier, shall be installed in accordance with the plans and specifications required by rule 335-6-15-.08.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** Effective: April 5, 1989. **Amended:** Effective: October 2, 2003;

**Amended:** Effective: April 25, 2008; **Amended:** Effective: December 8, 2017;

**Amended:** Filed: October 23, 2018; Effective: December 7, 2018; **Proposed:** November 18, 2021.

**335-6-15-.17 Methods of Release Detection for Underground Storage Tanks.** Each method of release detection for underground storage tanks used to meet the requirements of rule 335-6-15-.15 must be conducted in accordance with the applicable requirements (a) through (i) of this rule. The Department may make a determination as to the capability of release detection equipment to meet the requirements of this rule.

(a) Inventory Control. Product inventory control (or another test of equivalent performance) must be conducted at least every 30 days to detect a loss or gain of at least 1.0 percent of flow-through plus 130 gallons on a 30 day basis in the following manner:

1. Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the underground storage tank are recorded each operating day;

2. The equipment used is capable of measuring the level of product over the full range of the underground storage tank's height to the nearest one-eighth of an inch;

3. The regulated substance inputs are reconciled with delivery receipts by measurement of the underground storage tank inventory volume before and after delivery;

4. Deliveries are made through a drop tube that extends to within one foot of the underground storage tank bottom;

5. Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and

6. The measurement of any water or phase separated entrained water level in the bottom of the underground storage tank is made to the nearest one-eighth of an inch at least once every 30 days.

(b) Manual Tank Gauging. Manual tank gauging must meet the following requirements:

1. Underground storage tank liquid level measurements are taken at the beginning and ending of a period using the appropriate minimum duration of test value in the table shown in subparagraph (b)4. of this rule, during which no liquid is added to or removed from the underground storage tank;

2. Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;

3. The equipment used is capable of measuring the level of product over the full range of the underground storage tank's height to the nearest one-eighth of an inch;

4. A release is suspected and subject to the requirements of rules 335-6-15-.20 through 335-6-15-.23 if the variation between beginning and ending measurements exceed the weekly or 30 day standards in the following table:

<b>Nominal Underground Storage Tank Capacity</b>	<b>Minimum Duration of Test</b>	<b>Weekly Standard (one test)</b>	<b>30 day Standard (average of 4 tests)</b>
up to 550 gallons	36 hours	10 gallons	5 gallons
551-1,000 gallons (when underground storage tank diameter is 64")	44 hours	9 gallons	4 gallons
551-1,000 gallons (when underground storage tank diameter is 48")	58 hours	12 gallons	6 gallons
<u>551-1,000 gallons (also requires periodic tank tightness testing)</u>	<u>36 hours</u>	<u>13 gallons</u>	<u>7 gallons</u>
<u>1,001-2,000 gallons (also requires periodic tank tightness testing)</u>	<u>36 hours</u>	<u>26 gallons</u>	<u>13 gallons</u>

5. ~~5.001] Tanks of 550 gallons or less nominal capacity and tanks with a nominal capacity of 551 to 1,000 gallons that meet the tank diameter criteria in the table in paragraph (b)4 of this rule may use this as the sole method of release detection. All Emergency Power Generator tanks with a nominal capacity of 551 to 2,000 gallons may use the method in place of inventory control in paragraph (a) of this rule. Only underground storage tanks of 550 gallons or less nominal capacity, and underground storage tanks with a nominal capacity of 551 to 1,000 gallons that meet the underground storage tank diameter criteria in the table in above subparagraph (b)4. of this rule, may use this as a method of release detection.~~

(c) Tank Tightness Testing. Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the underground storage tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, underground storage tank deformation, evaporation or condensation, and the location of the water table.

1. The test must be performed by an individual having current certification of training from the manufacturer of the test method.

2. Unless waived by the Department the report of tightness testing of an underground storage tank must state whether or not the water table was

above the base of the underground storage tank excavation pit at the time of testing and the method by which this determination was made. If it is above the base, the specific elevation of the water table shall be determined and recorded in the test report.

(d) Automatic Tank Gauging. Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

1. The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the underground storage tank that routinely contains product;

2. The automatic tank gauging equipment must meet the inventory control requirements of subparagraph (a)6. of this rule (or other test of equivalent performance); and

3. The test must be performed with the equipment operating in one of the following modes:

(i) In-tank static testing conducted at least once every 30 days; or

(ii) Continuous in-tank leak detection operating on an uninterrupted basis or operating within a process that allows the equipment to gather incremental measurements to determine the leak status of the underground storage tank at least once every 30 days.

(e) Vapor Monitoring. Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following technical and procedural requirements:

1. A vapor monitoring plan with any required plans and specifications, must be submitted to the Department for review by the Department. The plan must be sufficient to demonstrate compliance with the requirements of subparagraphs (e)2. through 8. of this rule or modifications may be required by the Department.

2. The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

3. The stored regulated substance, or a tracer compound placed in the UST system, is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the underground storage tank. The Department may require testing of a vapor monitoring system with a tracer compound where a system's reliability is in question.

4. The measurement of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

5. The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the UST system based upon information, to include volatile hydrocarbon concentrations, collected throughout the excavation zone where this method is proposed for use.

6. The vapor monitors and vapor monitoring wells are designed and operated in a manner sufficient to: detect any significant increase in concentration above background of the regulated substance stored in the UST system, a component or components of that substance, or a tracer compound placed in the UST system, and provide a vapor sample to the vapor monitor that is representative of the concentration in the excavation zone. Construction details shall comply with subparagraphs (e)7. through 13. of this rule.

7. The well casing shall be constructed of a material which is compatible with the substance stored; and which has sufficient strength to prevent structural failure.

8. The well casing shall be a minimum of 2 inches in diameter and shall be large enough for the chosen monitoring device to be installed or operated properly in the well. A low permeability backfill may require the use of larger diameter casing.

9. The length and slot size of the slotted portion of the casing should be sufficient to obtain a representative vapor sample in accordance with the depth of excavation zone and site hydrogeology.

10. The well screen should be surrounded by a clean filter pack which allows for passage of vapors while preventing passage of materials which could clog the well screen. The filter pack should extend 1 to 2 feet above the well screen.

11. An annular seal shall extend up from the top of the filter pack for 1 to 2 feet.

12. The well annulus shall be grouted from the top of the bentonite to the ground surface.

13. Monitoring wells shall have a watertight cap or enclosure at the ground surface.

14. In the UST excavation zone, the site is assessed to ensure compliance with the requirements in subparagraphs (e)2. through 5. of this rule and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the underground storage tank that routinely contains product;

15. Vapor monitoring wells are clearly marked with the wording "NOT FOR DELIVERIES" or other sufficient language and locked to avoid unauthorized access and tampering. Monitoring wells which are located in an area subject to traffic must be equipped with enclosures which will not be damaged by normal traffic.

16. In the event of permanent closure of the UST system, all monitoring wells shall be closed according to a method acceptable to the Department, unless otherwise directed by the Department.

17. If a monitoring well is determined to be improperly constructed, closure may be required according to a method acceptable to the Department.

(f) Groundwater Monitoring. Testing or monitoring for liquids on the groundwater must meet the following technical and procedural requirements:

1. A groundwater monitoring plan with any required plans and specifications must be submitted for review. The plan must be sufficient to demonstrate that the requirements of subparagraphs (f)2. through 20. of this rule will be complied with or modifications may be required by the Department.

2. The regulated substance stored is immiscible in water and has a specific gravity of less than one;

3. The level of background contamination in or near the excavation zone will not interfere with the method used to detect releases from the UST system based upon information collected throughout the excavation zone and in the proposed area of well placement if not in the excavation zone;

4. Groundwater is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

5. Monitoring wells used for the purpose of release detection by groundwater monitoring shall be constructed according to the requirements of subparagraphs (f)6. through 15. and 20. of this rule;

6. The well casing shall be a minimum of 2 inches in diameter when used for release detection. Monitoring wells installed for investigations may range from 1" to 2" and wells, but shall be 4 inches in diameter if installed for corrective action. All wells shall be constructed with only threaded connections between sections;

7. The well casing shall be constructed of a material which is compatible with the substance stored; and which has sufficient strength to prevent structural failure;

8. The well casing shall be slotted from the bottom to at least two feet above the normal annual high water table where the depth to water will allow, and shall be designed to prevent migration of natural soils or filter pack into the well and to allow entry of a regulated substance on the water table into the well under both high and low groundwater conditions;

9. The well casing shall extend at least five feet below the water level at the time of drilling but no deeper than 25 feet;

10. The well annulus shall be backfilled with an appropriate clean filter pack adjacent to the slotted casing;

11. An annular seal shall extend from the top of the filter pack for 2 to 5 feet, where the depth to water will allow;

12. The well annulus shall be grouted from the top of the bentonite seal to the ground surface;

13. Monitoring wells shall have a watertight enclosure or cap with a grouted collar at the ground surface;

14. Monitoring wells shall be developed upon drilling until the water is clear and relatively sand free by over pumping, bailing, or surging with compressed air;

15. Monitoring wells shall be as close to the excavation zone as is technically feasible. If a monitoring well is located within the excavation zone, the base of the excavation zone shall not be penetrated;

16. If a continuous monitoring device is not used, manual monitoring shall consist of removal of fluid from the well, using a bailer, or a sampler of similar design. The fluid shall be taken from the surface of the water table. The fluid shall:

(i) Be poured into a clean, clear glass container kept for the purpose, and examined for signs of an oily layer or odor of pollutant; or

(ii) Be tested at the site; or

(iii) Be sent to a laboratory and tested.

17. A monitoring well must contain at least 6 inches of water or a sufficient depth to allow a sample to be obtained using a sampler selected in accordance with subparagraph (f)16. of this rule. If this requirement cannot be met for more than 30 days, the Department may require the monitoring well to be replaced, or another method of monitoring to be proposed to the Department for review;

18. The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the groundwater in the monitoring wells;

19. Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in subparagraphs (f)2. through 15. of this rule and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the UST system that routinely contains product. This is to include an evaluation of the direction of the groundwater gradient at a site;

20. Monitoring wells are clearly marked with the wording "NOT FOR DELIVERIES" or other sufficient language and locked to avoid unauthorized access and tampering. Monitoring wells which are located in an area subject to traffic must be equipped with enclosures which will not be damaged by normal traffic;

21. In the event of permanent closure of the UST system, all monitoring wells shall be closed according to a method acceptable to the Department; and

22. If a monitoring well is determined by the Department to be improperly constructed, closure may be required according to a method acceptable to the Department.

23. Existing groundwater monitoring wells which were completed prior to April 5, 1989 will be authorized for continued use if the Department determines that the minimum criteria of the federal UST regulations for monitoring wells are satisfied and the existing wells do not pose a threat of groundwater contamination due to poor construction.

(g) Interstitial Monitoring. Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the underground storage tank that routinely contains product and also meets one of the following requirements:

1. For double walled UST systems, the sampling or testing method can detect a leak through the inner wall in any portion of the underground storage tank that routinely contains product;

2. For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can in the determination of the Department, detect a leak between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least  $10^{-6}$  cm/sec for the regulated substance stored) to direct a leak to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a leak from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;



(iii) For cathodically protected underground storage tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The groundwater, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions;

(vi) Monitoring wells are clearly marked with the wording "NOT FOR DELIVERIES" or other sufficient language and locked to avoid unauthorized access and tampering; and when located in areas which are subject to traffic must be equipped with enclosures which will not be damaged by normal traffic; and

(vii) Monitoring wells extend to within 6 inches of the secondary barrier but shall not contact the barrier.

3. For underground storage tanks with an internally fitted liner, an automated device can detect a leak between the inner wall of the underground storage tank and the liner, and the liner is compatible with the substance stored.

(h) Statistical inventory reconciliation. Release detection methods based on the application of statistical principles to inventory data similar to those described in paragraph (a) of this rule must meet the following requirements:

1. Report a quantitative result with a calculated leak rate;
2. Be capable of detecting a leak rate of 0.2 gallon per hour or a release of 150 gallons within 30 days;
3. Use a threshold that does not exceed one-half the minimum detectible leak rate; and
4. Meet the inventory control requirements of subparagraphs (a)1. through 6. of this rule.

(i) Other methods. Any other type of release detection method, or combination of methods may be approved by the Department if:

1. It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within 30 days with a probability of detection of 0.95 and a probability of false alarm of 0.05; or
2. The owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in subparagraphs (c) through (h) above. In comparing methods, the Department 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 and operator must comply with any conditions imposed by the Department on its use to ensure the protection of human health and the environment.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Latoya Hall](#), [Dorothy Malaier](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** August 6, 2007; **Amended:** April 25, 2008; **Amended:** January 16, 2012; **Amended:** April 1, 2014; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.22 Release Investigation and Confirmation Steps.** Unless corrective action is initiated in accordance with rules 335-6-15-.24 through 335-6-15-.32~~1~~, owners and operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under rule 335-6-15-.20 within 7 days and submit the results to the Department within 10 days, or another reasonable time period specified by the Department, using either the following steps or another procedure approved by the Department:

(a) System test. Owners and operators must conduct tests (according to the requirements for tightness testing in rules 335-6-15-.17(c) and 335-6-15-.18(b) or as appropriate, secondary containment testing described in rule 335-6-15-.12(f)).

1. The test must determine whether:

(i) A leak exists in that portion of the underground storage tank, or the attached underground delivery piping; or

(ii) A breach of either wall of the secondary containment has occurred.

2. If the UST system test confirms a leak into the interstice or a release, owners and operators must immediately temporarily close the UST system in accordance with rule 335-6-15-.33(1)(c), repair the UST system in accordance with rule 335-6-15-.12, or permanently close the UST system in accordance with rules 335-6-15-.34 through 335-6-15-.37. In addition, owners and operators must begin corrective action if the test results for the system (underground storage tank, and/or underground delivery piping) indicate that a release exists.

3. The Department may release an owner or operator from any further investigation requirements if the underground storage tank tests tight after minor repairs to that portion of the underground storage tank that does not routinely contain product.

4. Further investigation is not required if the test results for the system (underground storage tank, and/or underground delivery piping) do not indicate that a release exists and if environmental contamination is not the basis for suspecting a release.

5. Owners and operators must conduct a preliminary investigation as described in subparagraph (b) of this rule if the test results for the system (underground storage tank, and/or underground delivery piping) do not indicate that a release exists but environmental contamination is the basis for suspecting a release.

(b) Preliminary investigation. Owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST system site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill,

the depth of groundwater, and other factors appropriate for identifying the presence and source of the release. Specific requirements for a preliminary investigation are included in rule 335-6-15-.26.

1. If in the determination of the Department the results of the preliminary investigation indicate that a release has occurred, owners and operators must initiate corrective action in accordance with rules 335-6-15-.24 through 335-6-15-.3~~2~~<sup>4</sup>. The Department may require a secondary investigation to be performed.

2. If in the determination of the Department the results of the preliminary investigation do not indicate that a release has occurred, further investigation is not required.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** April 1, 2014; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.23 Reporting and Cleanup of Spills and Overfills.**

(1) Owners and operators of UST systems must contain and immediately clean up a spill or overfill and report to the Department within 24 hours, or another reasonable time period specified by the Department, and begin corrective action in accordance with rules 335-6-15-.24 through 335-6-15-.~~341~~- in the following cases:

(a) Spill or overfill of petroleum that results in a release to the environment that exceeds 25 gallons or another reasonable amount specified by the Department, or that causes a sheen on nearby surface water; and

(b) Spill or overfill of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR 302).

(2) Owners and operators of UST systems must contain and immediately clean up a spill or overfill of petroleum that is less than 25 gallons or another reasonable amount specified by the Department, and a spill or overfill of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, or another reasonable time period established by the Department, owners and operators must immediately notify the Department.

**Author:** Sonja Massey, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Proposed:** November 18, 2021.

### **335-6-15-.24 Initial Release Response.**

(1) Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of rules 335-6-15-.24 through 335-6-15-.32~~4~~ except for UST systems excluded under rule 335-6-15-.03(2) and UST systems subject to corrective action requirements under [eDivision](#) 14 of the ADEM Administrative Code.

(2) Upon confirmation of a release in accordance with rule 335-6-15-.22 or after a release is identified in any other manner, owners and operators must perform the following initial response actions within 24 hours of a release or within another reasonable period of time determined by the Department:

(a) Report the release to the Department (notification by telephone is acceptable);

(b) Take immediate action to prevent any further release of the regulated substance into the environment; and

(c) Identify and mitigate fire, explosion, and vapor hazards.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** April 25, 2008; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.25 Initial Abatement Measures and Preliminary Investigation.**

(1) Upon confirmation of a release in accordance with rule 335-6-15-.22 or after a release is identified in any other manner, unless directed to do otherwise by the Department, owners and operators must perform the following abatement measures:

(a) Remove as much of the regulated substance from the UST system as is necessary to prevent further release to the environment;

(b) Visually inspect any aboveground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater;

(c) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements);

(d) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable ADEM and local requirements;

(e) Perform a preliminary investigation in accordance with rule 335-6-15-.26;

(f) Investigate to determine the possible presence of free product, and if found, begin free product removal as soon as practicable and in accordance with rule 335-6-15-.27. Where free product is present, investigative and corrective actions must be initiated in accordance with rules 335-6-15-.24 through 335-6-15-.~~34~~;

(g) Where dissolved groundwater contamination is determined to occur, for example, the contamination of an on-site well with a regulated substance, investigative and corrective actions must be initiated in accordance with rules 335-6-15-.24 through 335-6-15-.~~34~~.

(2) Within 20 days after release confirmation, or within another reasonable period of time determined by the Department, owners and operators must submit a report of initial response to the Department summarizing the initial abatement steps taken under paragraph (1) of this rule, the nature and estimated quantity of the regulated substance lost, information regarding the presence of free or dissolved product, tightness testing results where applicable, or any other resulting information or data.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.



### **335-6-15-.26 Preliminary Investigation Requirements.**

(1) Unless directed to do otherwise by the Department, or under the conditions identified in paragraph (2) of this rule, owners and operators required to perform a preliminary investigation must obtain and provide information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in rule 335-6-15-.25. This information must include, but is not necessarily limited to the following:

(a) Type of current and most likely future land use for the tank property and any likely affected properties, surrounding population, e.g., urban, rural, residential, commercial, agricultural;

(b) Results of a well inventory within 1000 feet of the site which includes the location, and where available, information on the depth and elevation and ownership of each well;

(c) Location of any public water supply wells, springs or reservoirs which are within one mile of the site;

(d) A description of the hydrogeologic environment, including type and nature of geologic materials, location of surface waters, surrounding land and water users, and the location of all underground utilities, water lines, sewers or other conduits;

(e) A determination of the uppermost aquifer and an initial evaluation of the potential for hydraulic interconnection with lower aquifers. This evaluation at this stage may be made based upon the results of site soil sampling and borings and available literature data;

(f) Results of soil sampling collected from the area which is most likely to have been affected by a release of a regulated substance:

1. A sufficient number of soil samples shall be collected to accurately represent the area and depths affected by a release;

2. Soil sampling shall be performed to a depth which adequately represents the zone most likely to have been contaminated by a release; and

3. Soil sampling shall be sufficient to determine if free product is present on the water table.

(g) Where soils are encountered which have a total petroleum hydrocarbon concentration of greater than 100 ppm and such soils extend to within 5 feet of the seasonal high water table, groundwater samples shall be collected and analyzed at a minimum of one up-gradient and three down-gradient locations unless directed to do otherwise by the Department.

(2) Upon approval by the Department, the following procedures may be used in satisfying the requirement for a preliminary investigation or closure assessment when the underground storage tank excavation pit is completely open and available for representative sample collection. If the conditions identified in subparagraph (2)(d)1. and 2. of this rule cannot be met; however, the preliminary investigation requirements of paragraph (1) of this rule must be complied with, unless directed to do otherwise by the Department.

(a) Soil samples shall be collected from the sides and base of the underground storage tank pit. At least one sample shall be collected from each side of the pit and at least one sample from the pit bottom for every underground storage tank that was present in the excavation. Side samples shall be collected from the lowest one-third of the underground storage tank wall. One sample per 10 lineal feet shall be collected from the base of underground piping trenches. Samples from the underground storage tank pit sides, base, and underground piping trenches shall be representative of the area being sampled.

(b) Analyze soil samples for the presence of total petroleum hydrocarbons.

(c) Determine the elevation of the groundwater table. Information on the elevation of the water table may be obtained from a boring located adjacent to the underground storage tank pit or from a nearby location. Water table elevation data may also be obtained when topographical features provide surface indications of the water table, and this data is substantiated by literature values.

(d) If the conditions identified in 1. and 2. in the table below are met, the Department may consider the investigation to be complete and no further action will be required. If the conditions identified in 1. and 2. in the table below cannot be met, the Department may require additional investigative actions or a preliminary investigation, in accordance with paragraph (1) of this rule, to be conducted.

<b><u>Total Petroleum Hydrocarbon Concentration</u></b>	<b><u>Depth to Groundwater</u></b>
1. 100 ppm or less for each sample	5 feet or more below base of underground storage tank excavation
2. 10 ppm or less for every sample	No restrictions

(3) Monitoring wells must be constructed in a manner acceptable to the Department or the Department may require them to be properly closed. Except where cross-contamination of aquifers is of concern, general construction details for monitoring wells should conform to the requirements of rules 335-6-15-.17(f)6. through 8., 10. through 14. and 20., and where cross-contamination is of concern, monitoring well construction details must be reviewed in advance by the Department. The Department may require modification of proposed construction details.

(4) All samples shall be analyzed for parameters which are appropriate to the nature of the stored substance and according to the methods specified in rule 335-6-15-.32.

(5) Within 60 days of release confirmation, or notification by the Department that a Preliminary Investigation is required, under the conditions of paragraph (1) of this rule, the owners and operators must submit the information collected in compliance with this rule to the Department in a manner that demonstrates its applicability and technical adequacy, ~~or~~and in a format and according to a schedule required by the Department. If the procedures under paragraph (2) of this rule apply, the results of the investigation must be submitted within 45 days of release confirmation or notification by the Department that an investigation is required.

(6) Preliminary investigation and closure site assessments must be performed in accordance with accepted geologic practices by a licensed professional geologist or registered professional engineer experienced in hydrogeologic investigations.

(7) Upon review of the results of the Preliminary Investigation, the Department may require a Secondary ~~i~~nvestigation to be completed in accordance with rule 335-6-15-.28.

(8) The Department may require additional sampling and analyses to be performed if it is determined that the number or location of samples, or methods used in the analysis of such samples are not sufficient to characterize the area and soil depths most likely to have been contaminated by a release.

(9) Management, treatment and disposal of soils, purge water and free product must comply with applicable local, state and federal requirements.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, Dorothy Malaier.

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** August 6, 2007; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.27 Free Product Removal.** At sites where investigations indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the Department while continuing, as necessary, any actions initiated under rules 335-6-15-.24 through 335-6-15-.26 or preparing for actions required under rules 335-6-15-.28 and 335-6-15-.29. In meeting the requirements of this section, owners and operators must:

(a) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state of Alabama and federal regulations;

(b) Use abatement of free product migration and removal of free product in a reasonable period of time as a minimum objective for the design of the free product removal system;

(c) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(d) Unless directed to do otherwise by the Department, prepare and submit to the Department, within 45 days after confirming ~~a release~~the presence of free product, a free product removal report that provides at least the following information:

1. The name of the person(s) responsible for implementing the free product removal measures;

2. The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

3. The type of free product recovery system used;

4. Whether any discharge ~~will take~~will or has taken place on-site or off-site during the recovery operation and where this discharge will be located;

5. The type of treatment applied to, and the effluent quality expected from, any discharge;

6. The steps that have been or are being taken to obtain necessary permits for any discharge; and

7. The disposition of the recovered free product.

(e) The Department may require additional measures to be taken to achieve free product recovery, if it is determined that the objectives of subparagraphs (a) through (c) of this rule are not being accomplished. A plan for continued free product removal shall be submitted for review and approval by the Department.

(f) Free product removal activities shall continue under this rule unless released from these requirements by the Department or a Corrective Action Plan is approved for authorization under Rule 335-6-15-.29.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Dorothy Malaier](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** April 1, 2014; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.28 Secondary Investigation Requirements.**

(1) When required in order to determine the full lateral and vertical extent and location of: soils contaminated by the release; the presence of free product; and the presence and concentrations of dissolved product contamination in the groundwater, the Department may require owners and operators to conduct a secondary investigation of the release site. This investigation must include the surrounding area possibly affected by the release if any of the following conditions exist:

(a) There is evidence that groundwater wells have been affected by the release (e.g., as found during release confirmation or previous corrective action measures);

(b) Free product is found to need recovery in compliance with rule 335-6-15-.27;

(c) There is evidence that contaminated soils may be in contact with groundwater (e.g., as found during conduct of the initial response measures or investigations required under rules 335-6-15-.24 through 335-6-15-.26); and

(d) The Department requests an investigation, based on the potential effects of contaminated soil or groundwater on nearby surface water and groundwater resources.

(2) The investigations required by paragraph (1) of this rule shall:

(a) Be sufficient to define the full lateral and vertical extent of soil and groundwater contamination;

(b) Determine the rate and direction of pollutant and groundwater migration through the use of piezometers and/or monitoring wells;

(c) Include results of groundwater sampling and analysis from monitoring wells at one background and a minimum of three down-gradient locations. The location of the down-gradient wells should take into consideration the direction of groundwater flow and should be placed so as to define the plume of contamination and the outer limits of the plume of contamination;

(d) Include a determination of the uppermost aquifer and an initial evaluation of the potential for hydraulic interconnection with lower aquifers. This evaluation may be made based upon the results of site soil sampling and borings and available literature data but may also require installation of wells into underlying aquifers. If this becomes necessary proper well construction techniques must be used to ensure that wells do not serve as conduits for contamination of underlying aquifers;

(e) Include analytical results for soil and groundwater samples for parameters which are appropriate to the nature of the stored substance and according to methods specified in rule 335-6-15-.32; and

(f) Provide sufficient information for the selection and design of appropriate corrective actions.

(3) The Department may require additional sampling and analyses to be performed if it is determined that the number or location of samples, or methods used in the analysis of such samples, are not sufficient to define the full lateral and vertical extent of soil and groundwater contamination.

(4) Owners and operators must submit a plan of study sufficient to accomplish the objective of paragraphs (1) and (2) of this rule together with a schedule of implementation. The owners and operators shall make any modifications to the plan of study deemed necessary by the Department.

(5) The plan of study must contain construction details for monitoring wells. Monitoring wells must be constructed in a manner acceptable to the Department or the Department may require them to be properly closed. Except where cross-contamination of aquifers is of concern, general construction details for monitoring wells should conform to the requirements of rule 335-6-15-.17(f)6. through 8., 10. through 14. and 20. The Department may require modification of proposed construction details.

(6) Owners and operators must submit the information collected under paragraphs (1) through (3) of this rule within the schedule submitted in paragraph (4) of this rule or in accordance with a schedule established by the Department.

(7) The secondary site investigation must be performed in accordance with accepted geologic practices by a licensed professional geologist or registered professional engineer experienced in hydrogeologic investigations.

[\(8\) All investigation derived waste shall be handled as stated in 335-6-15-.26\(9\).](#)

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Dorothy Malaier](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** August 6, 2007; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

### **335-6-15-.29 Corrective Action Plan.**

(1) At any point after reviewing the information submitted in compliance with rules 335-6-15-.24 through 335-6-15-.28, the Department may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and groundwater. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the Department. Alternatively, owners and operators may, after fulfilling the requirements of rules 335-6-15-.24 through 335-6-15-.28, choose to submit a corrective action plan for responding to contaminated soil and groundwater. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the Department, and must modify their plan as necessary to meet the requirements of the Department for achieving this standard.

(2) The corrective action plan must:

(a) Address the full lateral and vertical extent of soil and groundwater contamination [or as otherwise required by the Department](#);

(b) Address mitigation of soil contamination either through soil removal, or treatment in place, or another method which is determined by the Department to be no less protective of health and the environment, to standards identified in rule 335-6-15-.30;

(c) Provide for removal of free product in an effective and timely manner;

(d) Provide for treatment of dissolved groundwater contamination in an effective and timely manner to standards identified in rule 335-6-15-.30;

(e) Provide a rationale for selection of the proposed corrective actions and design criteria which address such items as equipment selection, flow rates and pumping rates;

(f) Address measures necessary to meet local, state of Alabama or federal requirements for control of surface or air discharges or disposal of soil [or free product](#); and

(g) Include a proposed schedule of implementation and monitoring plan.

[\(h\) Include site specific clean-up goals for soil, groundwater, surface water and vapors as applicable.](#)

[\(i\) Include an estimate of timeframes to meet the appropriate clean-up goals for each affected media.](#)

(3) The Department will approve the corrective action plan only when satisfied that implementation of the plan provides for measures considered



adequate to protect human health, safety, and the environment. In making this determination, the Department should consider the following factors as appropriate:

(a) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(b) The hydrogeologic characteristics of the site and the surrounding area;

(c) The findings of the preliminary and secondary investigations, [and groundwater monitoring events](#);

(d) The proximity, quality, and current and future uses of nearby surface water and groundwater;

(e) The potential effects of residual contamination on nearby surface water and groundwater;

(f) An exposure assessment conducted in accordance with rule 335-6-15-.30; and

(g) Any information assembled in compliance with this subpart.

(4) Upon approval of the corrective action plan or as directed by the Department, owners and operators must implement the plan, including modification to the plan made by or required to be made by the Department. They must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the Department.

(5) If at any time, the Department determines that the implementation of corrective actions are not achieving adequate protection of human health and the environment, the Department may require additional measures to be taken.

(6) Owners and operators shall continue implementation of the corrective action plan until released in writing from this responsibility by the Department.

(7) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and groundwater before the corrective action plan is approved provided that they:

(a) Notify the Department of their intention to begin cleanup;

(b) Comply with any conditions imposed by the Department, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(c) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the Department for approval.

(8) Upon conclusion of investigative monitoring, or corrective actions at a site, the Department may require any or all monitoring wells to be properly closed using procedures acceptable to the Department. A monitoring well abandonment plan and report will be required to be submitted in a format acceptable to the Department.

~~(9) Corrective Action Plans and Reports documenting the implementation of the Corrective Action Plan must comply with ADEM Admin. Code r. 335-6-15-.08(2).must be signed by an Alabama Licensed Professional Geologist and/or an Alabama Registered Professional Engineer in accordance with applicable state laws regarding the applicable licensing acts. Plans including engineering design must be signed by an Alabama Registered Professional Engineer.~~

~~(10) Reports documenting the implementation of the Corrective Action Plan must be signed by an Alabama Licensed Professional Geologist and/or an Alabama Registered Engineer in accordance with applicable state laws regarding the applicable licensing acts. Reports documenting the installation of an engineering remediation system must be signed by an Alabama Registered Professional Engineer.~~

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Dorothy Malaier](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** April 25, 2008; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.30 Corrective Action Requirements.** The following requirements shall apply when establishing risk based corrective action limits applicable to the cleanup of soil and groundwater contamination resulting from releases from underground storage tanks regulated under this chapter.

(a) A risk based corrective action process will be used to establish site specific corrective action limits protective of human health and the environment. Corrective action limits, institutional controls, or a combination thereof, shall be adequate to support onsite and surrounding property use consistent with existing and reasonable future use and achieve and maintain compliance with all applicable environmental standards for air, soil and waters of the state of Alabama. The only exception to the use of a risk based corrective action process shall be that as described in rule 335-6-15-.30(f).

(b) Free product shall be removed to the maximum extent practicable.

(c) A risk based corrective action process requires the specification of a target risk level for carcinogenic effects. The estimated individual-incremental excess lifetime cancer risk (IELCR) will be:

1. For constituents resulting from releases of petroleum or petroleum-based regulated substances, as regulated under this chapter, the estimated IELCR level used to establish site specific corrective action limits shall be  $10^{-5}$ , for all constituents of concern, for each exposure pathway. If corrective action to a  $10^{-5}$  risk level is determined by the Department to be infeasible, and in the determination of the Department, appropriate institutional controls are implemented, the Department may approve a site-specific corrective action limit that represents a risk level equal to but not greater than  $10^{-4}$ ; and

2. For constituents resulting from releases of non-petroleum regulated substances, as regulated under this chapter, the estimated IELCR used to establish site specific corrective action limits shall be no less than  $10^{-6}$  and no greater than  $10^{-5}$ . If corrective action to a  $10^{-6}$  to  $10^{-5}$  risk level is determined by the Department to be infeasible, and in the determination of the Department, appropriate institutional controls are implemented, the Department may approve a site specific corrective action limit that represents a risk level equal to but not greater than  $10^{-4}$ .

(d) For non-carcinogenic substances, a hazard quotient of one will be used.

(e) For the groundwater ingestion pathway, for constituents for which a Maximum Contaminant Level, MCL, has been established, the corrective action limit shall be set equal to the MCL. For carcinogenic constituents for which a Maximum Contaminant Level has not been established, the estimated IELCR shall be  $10^{-6}$ .

(f) For hydrogeologic settings, where the models used in the risk based evaluations are considered in the determination of the Department, not to be representative of, and thus not protective of, a given hydrogeologic setting, the

Department may require implementation of a corrective action plan to continue until the concentration of dissolved contaminants has leveled off. Leveling off shall mean that the graph of the contaminant concentration versus time fits a curve generally defined by the equation  $C = C_f + C_o e^{-kt}$ , and the slope of the final portion of the curve approaches zero. Alternatively, the Department may approve the use of a statistical method for use in demonstrating that contaminant concentrations are no longer decreasing with continued corrective action. An indicator parameter satisfactory to the Department shall be selected for application to the curve. In the equation above, the symbols are defined as follows:

1. C - contaminant concentration at time t;
2.  $C_f$  - the final concentration which the curve approaches asymptotically;
3.  $C_o$  - the concentration difference between the final concentration and the concentration at time zero;
4. e - 2.718, the base of natural logarithms;
5. k - an exponential factor which indicates how fast the concentration approaches  $C_f$ ; and
6. t - time in days from some fixed starting point.

(g) Corrective action limits, institutional controls, or a combination thereof, shall be developed and submitted for approval by the Department, using a format, procedures, and within a schedule acceptable to the Department.

(h) Corrective action, institutional controls, or a combination thereof, shall be implemented, where necessary, to meet the objectives of this rule, within a schedule acceptable to the Department.

**Author:** Sonja Massey, Curt Johnson, Lee Davis; [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989. Repealed: August 28, 2003, Readopted: October 2, 2003;

**Amended:** December 8, 2017; **Proposed:** November 18, 2021.

**335-6-15-.32 Analytical Requirements.** Soil and groundwater samples collected under the requirements of this chapter shall be analyzed for the constituents according to the methods presented in this rule, as directed by the Department.

(a) Analysis of soils. Analysis of soils for petroleum contaminants shall be performed for the following parameters according to the type of petroleum product causing the contamination:

1. Total petroleum hydrocarbons.
2. Benzene, ethyl benzene, toluene, total xylenes, naphthalene, methyl tert-butyl ether.
3. Polynuclear aromatic hydrocarbons (PAHs) as directed by the Department.
4. Lead.

<u>1. Total petroleum hydrocarbons</u>	<u>Standard Method 503 EPA Method 9071</u>
<u>2. Benzene, ethyl benzene, toluene and total xylenes</u>	<u>EPA Method 5030 or 3810, followed by EPA Method 8020 or 8240</u>
<u>3. Lead</u>	<u>EPA Method 239.2</u>

(b) Gasoline analytical group. Analysis of groundwater or surface waters required by this chapter for petroleum contaminants of this group shall be performed for the following parameters according to the type of petroleum product causing the contamination:

1. Benzene, ethyl benzene, toluene, total xylenes, naphthalene, methyl tert-butyl ether
2. 1, 2-Dibromoethane and 1,2 - Dichloroethane
3. Lead.
4. Volatile organic compounds, as directed by the Department.

<del>1. Volatile organic halocarbons (including priority pollutant compounds)</del>	<del>EPA Method 601</del>
<del>2. Benzene, ethyl benzene, toluene and total xylenes</del>	<del>EPA Method 602 or 624</del>
<del>3. 1, 2-Dibromoethane</del>	<del>EPA Method 504.1</del>
<del>4. Lead</del>	<del>EPA Method 239.2</del>

(c) Kerosene Analytical Group. Analysis of groundwater or surface waters required by this chapter for petroleum contaminants of this group shall be performed for the following parameters according to the type of petroleum product causing the contamination:

1. Polynuclear aromatic hydrocarbons (PAHs) as directed by the Department.
2. Benzene, ethyl benzene, toluene and total xylenes.
3. Volatile organic compounds as directed by the Department.
4. 1, 2-Dibromoethane. And 1,2-Dichloroethane
5. Lead.

Note: Kerosene, diesel and jet fuels are included in this group.

<del>1. Polynuclear aromatic hydrocarbons (PAH) (Including 15 priority pollutant PAH's plus 2 Methylnaphthalene and 1 Methylnaphthalene)</del>	<del>EPA Method 601 <u>610</u> or 625</del>
<del>2. Benzene, ethyl benzene, toluene and total xylenes</del>	<del>EPA Method 602 or 624</del>
<del>3. Volatile organic halocarbons (including priority pollutant compounds)</del>	<del>EPA Method 601</del>
<del>4. 1, 2-Dibromoethane</del>	<del>EPA Method 504.1</del>
<del>5. Lead</del>	<del>EPA Method 239.2</del>

(d) For tanks containing materials other than those list in (a), (b), or (c) above, analytical parameters will be as directed by the Department.

(e) Monitoring of soil or groundwater for ~~all other than petroleum related~~ regulated substances shall be according to established EPA analytical methods, where applicable.

(f) Where the results of initial analyses of soil or groundwater do not indicate the presence of a contaminant listed in subparagraphs (a) through (c) of this rule, or indicate that the presence of the contaminant is due to an ambient

concentration, the Department may waive requirements for further testing for that contaminant.

(g) The Department may approve ~~alternate~~additional methods for the monitoring or investigation of regulated substances which have been released to soils, groundwaters or surface waters of the state of Alabama.

(h) Soil vapor monitoring will be as directed by the Department and shall be according to established EPA analytical methods, where applicable.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, Dorothy Malaier, Vernon H. Crockett.

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.

### **335-6-15-.35 Site Closure or Change-In-Service Assessment.**

(1) Before permanent closure or change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site according to procedures which are acceptable to the Department. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to groundwater, and other factors appropriate for identifying the presence of a release. A report of the assessment findings shall be submitted to the Department within 45 days of initiating the closure or the change-in-service. The assessment requirements of this paragraph are satisfied if the requirements of rule 335-6-15-.26(1)(f) and (g) or (2) are satisfied or one of the external release detection methods allowed in rules 335-6-15-.17(e) and (f) and 335-6-15-.18 have been routinely used and operated in accordance with the requirements in rules 335-6-15-.17 and 335-6-15-.18 at the time of closure, and indicates no release has occurred.

(2) If contaminated soils, contaminated groundwater, or free product as a liquid or vapor is discovered under paragraph (1) of this rule, or by any other manner, owners and operators must begin corrective action in accordance with rules 335-6-15-.24 through 335-6-15-.~~34~~4.

**Author:** Sonja Massey, Curt Johnson, Lee Davis, [Vernon H. Crockett](#).

**Statutory Authority:** Code of Alabama 1975, § 22-36-3.

**History:** April 5, 1989.

**Amended:** October 2, 2003; **Amended:** December 8, 2017; **Proposed:** November 18, 2021.