

~~(g) An accurately calibrated ultraviolet intensity meter, properly filtered to restrict its sensitivity to the disinfection spectrum, shall be installed in the wall of the disinfection chamber at the point of greatest water depth from the tube or tubes.~~

~~(h) A diversion valve or automatic shut-off valve shall be installed which will permit flow into the finished drinking water system only when at least the minimum ultraviolet dosage is applied. When power is not being supplied to the unit, the valve should be in a closed position which prevents the flow of water into the finished drinking water system.~~

~~(i) An automatic, audible alarm shall be installed to warn of malfunction or impending shutdown.~~

~~(j) The materials of construction shall not impart toxic materials into the water either as a result of the presence of toxic constituents in materials of construction or as a result of physical or chemical changes resulting from exposure to ultraviolet energy.~~

~~(k) The unit shall be designed to protect the operator against electrical shock or excessive radiation.~~

~~(l) As with any drinking water treatment process, due consideration must be given to the reliability, economics, and competent operation of the disinfection process and related equipment, including:~~

~~(i) installation of the unit in a protected enclosure not subject to extremes of temperature which could cause malfunction; and~~

~~(ii) provision of a spare UV tube and other necessary equipment to effect prompt repair by qualified personnel properly instructed in the operation and maintenance of the equipment.~~

#### **R309-520-15. Operation and Maintenance.**

~~(1) Safety:~~

~~Chlorine gas facilities shall be operated in a manner which minimizes risks to water system personnel or the general public.~~

~~(2) Residual Chlorine:~~

~~Public drinking water systems supplied water from conventional surface water treatment or alternatives shall test for detectable chlorine residual or HPC within the distribution system as outlined in R309-215-10.~~

~~(3) Chlorine Dosing:~~

~~Chlorine, when used in the distribution system, shall be added in sufficient quantity to achieve either "breakpoint" and yield a detectable free chlorine residual or a detectable combined chlorine residual in the distribution system at points to be determined by the Executive Secretary. Residual checks must be taken daily by the operator of any system using disinfectants. The Executive Secretary may, however, reduce the frequency of residual checks if he determines that this would be an unwarranted hardship on the water system operator and, furthermore, the disinfection equipment has a verified record of reliable operation. Suppliers, when checking for residuals, must use test kits and methods which meet the requirements of the U.S. EPA. The "DPD" test method is recommended for free chlorine residuals. Information on the suppliers of this equipment is available from the Division.~~

~~(4) ANS/NSF Standard 60 Certification:~~

~~All chemicals, including chlorine gas, added to drinking water supplied by a public water system shall be certified as complying with ANS/NSF Standard 60, Drinking Water Treatment Chemicals.~~

**[KEY: drinking water, primary disinfectants, secondary disinfectants, operation and maintenance**

**Date of Enactment or Last Substantive Amendment: [April 27, 2009]2011**

**Notice of Continuation: March 22, 2010**

**Authorizing, and Implemented or Interpreted Law: 19-4-104**

## Environmental Quality, Environmental Response and Remediation **R311-200** Underground Storage Tanks: Definitions

### NOTICE OF PROPOSED RULE (Amendment)

DAR FILE NO.: 34270

FILED: 12/01/2010

### RULE ANALYSIS

**PURPOSE OF THE RULE OR REASON FOR THE CHANGE:** Definitions for "Certified Environmental Laboratory" and "Injury or Damages from a Release" are added to implement or clarify changes made in the rules (Subsection R311-205-2(d)) and in the Underground Storage Tank (UST) Act (Subsection 19-6-409(2)(e)). The term "Environmental Consultant" is removed from the definition of "Consultant" because the only use of the term in the UST rules (Subsection R311-207-4(e)) is removed. Use of the term "Consultant" is adequate. The definition of "Consultant" is modified so it will match the definition of a certified UST consultant in the UST Act (Subsection 19-6-402(6)).

**SUMMARY OF THE RULE OR CHANGE:** Adds definitions for "Certified Environmental Laboratory" and "Injury or Damages from a Release". Modifies and moves the definition of "Consultant".

**STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE:** Section 19-6-105 and Section 19-6-403

**ANTICIPATED COST OR SAVINGS TO:**

♦ **THE STATE BUDGET:** No cost or savings. The changes only add definitions to implement or clarify other rules and the UST Act.

♦ **LOCAL GOVERNMENTS:** No cost or savings. The changes only add definitions to implement or clarify other rules and the UST Act.

♦ **SMALL BUSINESSES:** No cost or savings. The changes only add definitions to implement or clarify other rules and the UST Act.

◆ PERSONS OTHER THAN SMALL BUSINESSES, BUSINESSES, OR LOCAL GOVERNMENTAL ENTITIES: No cost or savings. The changes only add definitions to implement or clarify other rules and the UST Act.

COMPLIANCE COSTS FOR AFFECTED PERSONS: No compliance costs. The changes only add definitions to implement or clarify other rules and the UST Act.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: There is no fiscal impact associated with the addition or modification of the definitions.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:  
 ENVIRONMENTAL QUALITY  
 ENVIRONMENTAL RESPONSE AND  
 REMEDIATION  
 ROOM FIRST FLOOR  
 195 N 1950 W  
 SALT LAKE CITY, UT 84116-3085  
 or at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

◆ Gary Astin by phone at 801-536-4103, by FAX at 801-359-8853, or by Internet E-mail at gastin@utah.gov

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS NO LATER THAN AT 5:00 PM ON 01/14/2011

INTERESTED PERSONS MAY ATTEND A PUBLIC HEARING REGARDING THIS RULE:

◆ 01/06/2011 02:00 PM, MASOB, 195 N 1950 W, Room 1015, Salt Lake City, UT

THIS RULE MAY BECOME EFFECTIVE ON: 02/14/2011

AUTHORIZED BY: Brent Everett, Director

### R311. Environmental Quality, Environmental Response and Remediation.

#### R311-200. Underground Storage Tanks: Definitions.

##### R311-200-1. Definitions.

(a) Refer to Section 19-6-402 for definitions not found in this rule.

(b) For purposes of underground storage tank rules:

(1) "Actively participated" for the purpose of the certification programs means that the individual applying for certification must have had operative experience for the entire project from start to finish, whether it be an installation or a removal.

(2) "Alternative Fuel" means a petroleum-based fuel containing:

- (A) more than ten percent ethanol, or
- (B) more than twenty percent biodiesel.

(3) "As-built drawing" for purpose of notification means a drawing to scale of newly constructed USTs. The USTs shall be referenced to buildings, streets and limits of the excavation. The drawing shall show the locations of tanks, product lines, dispensers, vent lines, cathodic protection systems, and monitoring wells. Drawing size shall be limited to 8-1/2" x 11" if possible, but shall in no case be larger than 11" x 17".

(4) "Automatic line leak detector test" means a test that simulates a leak, and causes the leak detector to restrict or shut off the flow of regulated substance through the piping or trigger an audible or visual alarm.

(5) "Backfill" means any foreign material, usually pea gravel or sand, which usually differs from the native soil and is used to support or cover the underground storage tank system.

(6) "Biodiesel" means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100.

(7) "Burden" means the addition of the percentage of indirect costs which are added to raw labor costs.

(8) "Certificate" means a document that evidences certification.

(9) "Certification" means approval by the Executive Secretary or the Board to engage in the activity applied for by the individual.

(10) "Certified Environmental Laboratory" means a laboratory certified by the Utah Department of Health as outlined in Rule R444-14 to perform analyses according to the laboratory methods identified for UST sampling in Subsection R311-205-2(d).

(1[0]1) "Change-in-service" means the continued use of an UST to store a non-regulated substance.

(1[+]2) "Community Water System" means a public water system that serves at least fifteen service connections used by year-round residents or regularly serves at least 25 year-round residents.

(1[2]3) "Confirmation sample" means an environmental sample taken, excluding closure samples as outlined in Section R311-205-2, during soil overexcavation or any other remedial or investigation activities conducted for the purpose of determining the extent and degree of contamination.

(14) "Consultant" is a person who is a certified underground storage tank consultant according to Subsection 19-6-402(6).

(1[3]5) "Customary, reasonable and legitimate expenses" means costs incurred during the investigation, abatement and corrective actions that address a release which are normally charged according to accepted industry standards, and which must be justified in an audit as an appropriate cost. The costs must be directly related to the tasks performed.

(1[4]6) "Customary, reasonable and legitimate work" means work for investigation, abatement and corrective action that is required to reduce contamination at a site to levels that are protective of human health and the environment. Acceptable levels may be established by risk-based analysis and taking into account current or probable land use as determined by the Executive Secretary following the criteria in R311-211.

(1[5]7) "Department" means the Utah Department of Environmental Quality.

(1[6]8) "Eligible exempt underground storage tank" for the purpose of eligibility for the Utah Petroleum Storage Tank Trust Fund means a tank specified in 19-6-415(1).

~~(17) "Environmental Consultant" or "Consultant" is an individual who provides or contracts to provide information, an opinion, or advice for a fee, or in conjunction with services for which a fee is charged, relating to underground storage tank management, release abatement, investigation, corrective action, or evaluation.~~

(18) "Environmental sample" is a groundwater, surface water, air, or soil sample collected, using appropriate methods, for the purpose of evaluating environmental contamination.

(19) "EPA" means the United States Environmental Protection Agency.

(20) "Expediently disposed of" means disposed of as soon as practical so as not to become a potential threat to human health or safety or the environment, whether foreseen or unforeseen as determined by the Executive Secretary.

(21) "Fiscal year" means a period beginning July 1 and ending June 30 of the following year.

(22) "Full installation" for the purposes of 19-6-411(2) means the installation of an underground storage tank.

(23) "Groundwater sample" is a sample of water from below the surface of the ground collected according to protocol established in Rule R311-205.

(24) "Groundwater and soil sampler" is the person who performs environmental sampling for compliance with Utah underground storage tank rules.

(25) "Injury or Damages from a Release" means, for the purposes of Subsection 19-6-409(2)(e), any petroleum contamination that has migrated from the release onto or under a third party's property at concentrations exceeding Initial Screening Levels specified in R311-211-6(a).

(26) "In use" means that an operational, inactive or abandoned underground storage tank contains a regulated substance, sludge, dissolved fractions, or vapor which may pose a threat to human health, safety or the environment as determined by the Executive Secretary.

(27) "Lapse" in reference to the Certificate of Compliance and coverage under the Petroleum Storage Tank Trust Fund, means to terminate automatically.

(28) "Native soil" means any soil that is not backfill material, which is naturally occurring and is most representative of the localized subsurface lithology and geology.

(29) "No Further Action determination" means that the Executive Secretary has evaluated information provided by responsible parties or others about the site and determined detectable petroleum contamination from a particular release does not present an unacceptable risk to public health or the environment based upon Board established criteria in R311. If future evidence indicates contamination from that release may cause a threat, further corrective action may be required.

(30) "Notice of agency action" means any enforcement notice, notice of violation, notice of non-compliance, order, or letter issued to an individual for the purpose of obtaining compliance with underground storage tank rules and regulations.

(31) "Occurrence" in reference to Subsection R311-208-4 means a separate petroleum fuel delivery to a single tank.

(32) "Owners and operators" means either an owner or operator, or both owner and operator.

(33) "Overexcavation" means any soil removed in an effort to investigate or remediate in addition to the minimum amount required to remove the UST or take environmental samples during UST closure activities as outlined in Section R311-205-2.

(34) "Permanently closed" means underground storage tanks that are removed from service following guidelines in 40 CFR Part 280 Subpart G adopted by Section R311-202.

(35) "Petroleum storage tank" means a storage tank that contains petroleum as defined by Section 19-6-402(20).

(36) "Petroleum storage tank fee" means the fee which capitalizes the Petroleum Storage Tank Trust Fund as established in Section 19-6-409.

(37) "Petroleum storage tank trust fund" means the fund created by Section 19-6-409.

(38) "Potable Drinking Water Well" means any hole (dug, driven, drilled, or bored) that extends into the earth until it meets groundwater which supplies water for a non-community public water system, or otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses). Such well may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities.

(39) "Public Water System" means a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. It includes any collection, treatment, storage, and distribution facilities under control of the operator of the system and used primarily in connection with the system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with the system.

(40) "Registration fee" means underground storage tank registration fee.

(41) "Regulated substance" means any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act "CERCLA" of 1980, but not including any substance regulated as a hazardous waste under subtitle C, and petroleum, including 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. The term "regulated substance" includes petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, and includes motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

(42) "Secondary Containment" means a release prevention and detection system for a tank or piping that has an inner and outer barrier with an interstitial space between them for monitoring. The monitoring of the interstitial space shall meet the requirements of 40 CFR 280.43(g).

(43) "Site assessment" or "site check" is an evaluation of the level of contamination at a site which contains or has contained an UST.

(44) "Site assessment report" is a summary of relevant information describing the surface and subsurface conditions at a facility following any abatement, investigation or assessment,

monitoring, remediation or corrective action activities as outlined in Rule R311-202, Subparts E and F.

(4[4]6) "Site investigation" is work performed by the owner or operator, or his designee, when gathering information for reports required for Utah underground storage tank rules.

(4[5]7) "Site plat" for purpose of notification, or reporting, refers to a drawing to scale of USTs in reference to the facility. The scale should be dimensioned appropriately. Drawing size shall be limited to 8-1/2" x 11" if possible, but shall in no case be larger than 11" x 17". The site plat should include the following: property boundaries; streets and orientation; buildings or adjacent structures surrounding the facility; present or former UST(s); extent of any excavation(s) and known contamination and location and volume of any stockpiled soil; locations and depths of all environmental samples collected; locations and total depths of monitoring wells, soil borings or other measurement or data points; type of ground-cover; utility conduits; local land use; surface water drainage; and other relevant features.

(4[6]8) "Site under control" means that the site of a release has been actively addressed by the owner or operator who has taken the following measures:

(A) Fire and explosion hazards have been abated.

(B) Free flow of the product out of the tank has been stopped.

(C) Free product is being removed from the soil, groundwater or surface water according to a work plan or corrective action plan approved by the Executive Secretary.

(D) Alternative water supplies have been provided to affected parties whose original water supply has been contaminated by the release.

(E) A soil or groundwater management plan or both have been submitted for approval by the Executive Secretary.

(4[7]9) "Soil sample" is a sample collected following the protocol established in Rule R311-205.

(4[8]50) "Surface water sample" is a sample of water, other than a groundwater sample, collected according to protocol established in Rule R311-205.

(4[9]51) "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials, such as concrete, steel, or plastic, that provide structural support.

(5[0]2) "UAPA-exempt orders" are orders that are exempt from requirements of the Utah Administrative Procedures Act under Section 63G-4-102(2)(k), Utah Code Annot.

(5[1]3) "Under-Dispenser Containment" means containment underneath a dispenser that will prevent leaks from the dispenser or transitional components that connect the piping to the dispenser (check valves, shear valves, unburied risers or flex connectors, or other components that are beneath the dispenser) from reaching soil or groundwater.

(5[2]4) "Underground storage tank" or "UST" means any one or combination of tanks, including underground pipes connected thereto and any underground ancillary equipment and containment system, that is used to contain an accumulation of

regulated substances, and the volume of which, including the volume of underground pipes connected thereto, is ten percent or more beneath the surface of the ground, regulated under Subtitle I, Resource Conservation and Recovery Act, 42 U.S.C., Section 6991c et seq.

(5[3]5) "Underground storage tank registration fee" means the fee assessed by Section 19-6-408 on tanks located in Utah.

(5[4]6) "UST inspection" is the inspection required by state and federal underground storage tank rules and regulations during the installation, testing, repairing, operation or maintenance, and removal of regulated underground storage tank.

(5[5]7) "UST inspector" is an individual who performs underground storage tank inspections for compliance with state and federal rules and regulations.

(5[6]8) "UST installation" means the installation of an underground storage tank, including construction, placing into operation, building or assembling an underground storage tank in the field. It includes any operation that is critical to the integrity of the system and to the protection of the environment, which includes:

(A) pre-installation tank testing, tank site preparation including anchoring, tank placement, and backfilling;

(B) vent and product piping assembly;

(C) cathodic protection installation, service, and repair;

(D) internal lining;

(E) secondary containment construction; and

(F) UST repair and service.

(5[7]9) "UST installation permit fee" means the fee established by Section 19-6-411(2)(a)(ii).

(5[8]60) "UST installer" means an individual who engages in underground storage tank installation.

(5[9]61) "UST removal" means the removal of an underground storage tank system, including permanently closing and taking out of service all or part of an underground storage tank.

(6[0]2) "UST remover" means an individual who engages in underground storage tank removal.

(6[1]3) "UST tester" means an individual who engages in UST testing.

(6[2]4) "UST testing" means a testing method which can detect leaks in an underground storage tank system, or testing for compliance with corrosion protection requirements. Testing methods must meet applicable performance standards of 40 CFR 280.40(a)(3), 280.43(c), and 280.44(b) for tank and product piping tightness testing, 280.44(a) for automatic line leak detector testing, and 280.31(b) for cathodic protection testing.

**KEY: petroleum, underground storage tanks**

**Date of Enactment or Last Substantive Amendment: ~~August 18, 2008~~ 2011**

**Notice of Continuation: April 18, 2007**

**Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-403**