

**TITLE 165. CORPORATION COMMISSION
CHAPTER 29. CORRECTIVE ACTION OF PETROLEUM
STORAGE TANK RELEASES
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[Authority: 42 U.S.C. §6991 et seq.; 17 O.S., §§ 301 et seq.]

[Source: Codified 6-26-00]

**CHAPTER 29. CORRECTIVE ACTION OF PETROLEUM
STORAGE TANK RELEASES**

SUBCHAPTER 1. GENERAL PROVISIONS

PART 1. PURPOSE AND STATUTORY AUTHORITY

165:29-1-1. Purpose

The purpose of this Chapter is to provide a comprehensive program for the regulation of petroleum storage tank systems in Oklahoma to prevent, contain, abate, and remove pollution harmful to the public health, safety, welfare and the environment.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-1-2. Contents

This Chapter sets forth specific requirements for corrective action of releases including the investigation, site assessment, cleanup, public notice, and monitoring of systems.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-1-3. Authority

(a) 42 U.S.C.A. § 6991 et seq., permits the State to submit a petroleum storage tank regulatory program for review and approval by the Administrator of the United States Environmental Protection Agency ("EPA"). EPA approved Oklahoma's petroleum storage tank program on 8/12/92.

(b) 17 O.S. § 305 authorizes the Oklahoma Corporation Commission to administer Subtitle I of Title VI of the Solid Waste Disposal Act (42 U.S.C.A. § 6901 et seq.).

(c) 17 O.S. § 306 requires the Oklahoma Corporation Commission to promulgate and enforce rules to carry out the provisions of the Oklahoma Petroleum Storage Tank Regulation Act (17 O.S. § 301 et seq.).

(d) The Oklahoma Corporation Commission has jurisdiction over storage tanks that contain antifreeze, motor oil, motor fuel, gasoline, kerosene, diesel, or aviation fuel.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 32 Ok Reg 811, eff 8-27-15]

PART 3. DEFINITIONS

165:29-1-11. Definitions

In addition to the terms defined in 17 O.S. § 303, the following words or terms, when used in this Chapter, shall have the following meaning unless the context clearly indicates otherwise:

"ANSI" means the American National Standards Institute.

"API" means the American Petroleum Institute.

"ASTM" means the American Society for Testing and Materials.

"Abandoned system" means a storage tank system that has not been removed but has been taken out of service and is not intended to be returned to service, or that has been rendered permanently unfit for use as determined by the Commission, including all tanks closed prior to April 21, 1989.

"Aboveground release" means any release to the surface of the land or to surface water. It includes, but is not limited to, releases from the aboveground portion of an underground storage tank system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank system.

"Agent" means a person authorized by another to act on their behalf, either out of employment or contract.

"Aquifer" means a formation that contains sufficient saturated, permeable material to yield significant quantities of water to wells and springs. This implies an ability to store and transmit water for beneficial uses.

"Ancillary equipment" means any device including, but not limited to, devices such as piping, fittings, flanges, valves, and pumps that are used to distribute, meter, or control the flow of regulated substances to or from a petroleum storage tank.

"Backfill" refers to only the material placed in the excavation zone to support the petroleum storage tank system.

"Belowground release" means any release to the subsurface of the land or to groundwater. It includes, but is not limited to, releases from belowground portions of petroleum storage tank systems and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from underground storage tank systems. "Belowground release" does not include releases to a secondary containment system.

"Beneath the surface of the ground" means beneath the ground's surface or otherwise covered with materials so that physical inspection is precluded or impaired.

"Beneficial uses" means a classification of the waters of the State, according to their best uses in the interest of the public.

"COC" means Chemical of Concern.

"Commission" means the Oklahoma Corporation Commission and includes its designated agents or representatives.

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

"Confirmed Release" means a release of petroleum from a regulated storage tank system resulting in levels of chemicals of concern in native soils and/or groundwater that exceed state action levels to which a PSTD case number is assigned and further corrective action is required.

"Contaminants" or **"contamination"** means concentrations of regulated substances or dissolved compounds therefrom at levels that may cause adverse human health or environmental effects.

"Corrective action" means action taken to assess, monitor, minimize, eliminate or clean up a release from a storage tank system.

"Corrective Action Plan" means any plan submitted to the Division detailing the method and manner of corrective action to be taken for a release.

"DAF" means Dilution Attenuation Factor.

"DEQ" means the Oklahoma Department of Environmental Quality.

"DWS" means Drinking Water Standards.

"**de minimis**" means, for the purposes of this Chapter, very small, as in very small amounts or concentrations of regulated substances.

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

"**Dilution Attenuation Factor**" or "**DAF**" means a unitless number greater than or equal to unity and represents the ratio of dissolved phase concentration at a downgradient location to the concentration at an upgradient location. It represents the reduction in concentration due to the combined influence of several factors (diffusion, dispersion, adsorption, decay, volatilization). It is applicable for all media, but is most commonly used for the unsaturated and saturated zones. DAF is generally estimated using a fate and transport model or based on site-specific data.

"**Director**" means the Director of the Petroleum Storage Tank Division of the Corporation Commission.

"**Division**" means the Petroleum Storage Tank Division of the Corporation Commission.

"**EPA**" means the United States Environmental Protection Agency.

"**Electrical equipment**" means underground equipment that contains dielectric fluid necessary for the operation of equipment such as transformers and buried electric cable.

"**Environment**" means any water, water vapor, any land including land surface or subsurface, fish, wildlife, air and atmosphere, and all other natural resources.

"**Environmental experience**" means work-related experience in any type of activities associated with soil, water or atmosphere impacted or potentially impacted by a hazardous substance.

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

"**Facility**" means any location or part thereof consisting of one or more petroleum storage tanks or systems containing regulated substances.

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

"**FOC**" means fraction organic carbon content.

"**Fraction organic carbon content**" or "**FOC**" means the fraction of organic carbon in soil that influences the adsorption of organic chemicals. It can be estimated in soils using high temperature combustion and oxidation techniques such as ASTM method D2974.

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

"**Fresh groundwater**" means groundwater with total dissolved solids (TDS) less than five thousand (5,000) parts per million.

"**Fund**" means the Petroleum Storage Tank Release Environmental Cleanup Indemnity Fund.

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

"**Groundwater**" means that part of water that is below the water table.

"Half-life" means the time required for the decay or transformation of one half of the amount of a chemical.

"Hazard Index" means the sum of the Hazard Quotients.

"Hazard Quotient" means the estimated dose, or intake, for a specific chemical and a specific pathway, divided by the Reference Dose (RfD).

"Impervious barrier" means a barrier of sufficient thickness, density, and composition that is impenetrable to the regulated substance, has a permeability of at least 1×10^{-6} cm/sec., and will prevent the discharge to the environment of any regulated substance for a period of at least as long as the maximum anticipated time during which the regulated substance will be in contact with the impervious material.

"In service" means a petroleum storage tank that is not abandoned, or could contain regulated substances, and/or has regulated substances regularly added to or withdrawn from it.

"Inventory controls" means techniques used to identify a loss of regulated substances that are based on volumetric measurements in the tank and reconciliation of those measurements with product delivery and withdrawal records.

"Licensed Environmental Consultant" means an individual who has a current license issued by the Petroleum Storage Tank Division to perform corrective action.

"Liquid trap" means sumps, well cellars, and other traps used in association with oil or gas production, gathering, and extraction operations (including gas production plants) to collect oil, water, and other liquids. 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.

"MCL" means Maximum Contaminant Level.

"MtBE" means methyl tertiary butyl ether.

"Maintenance" means the normal operational upkeep necessary to prevent a petroleum storage tank system from releasing product.

"Motor fuel" means any petroleum product, oxygenate, or blend of products, that is suitable for use as a fuel in an internal combustion or diesel engine.

"Monitor well" means a piezometer or other cased and screened excavation, boring or drilled hole installed in any way that can be used for the continuous or periodic evaluation of groundwater quality or the detection of soil vapors.

"NACE" means the National Association of Corrosion Engineers.

"NFPA" means the National Fire Protection Association, Inc.

"NPDES" means the National Pollutant Discharge Elimination System.

"Occurrence" means the release of a PSTD regulated substance into the soil or groundwater. Each PSTD regulated substance will be treated as one occurrence regardless of the composition of the substance released. Separate occurrences of the same PSTD regulated substance may be allowed if evidence establishes that the PSTD regulated substance occurred in two different tank systems locations, are separated by time, or both.

"ORBCA" or **"Oklahoma Risk-Based Corrective Action"** means a scientific risk-based analysis that governs petroleum storage tank site assessment and remediation. It determines acceptable concentration levels of petroleum constituents in order to protect the public health, safety or welfare or the environment.

"OSDA" means the Oklahoma State Department of Agriculture.

"OWRB" means the Oklahoma Water Resources Board.

"Observation Well" means a cased and screened boring or drilled hole, installed within the tank excavation or piping trench that can be used for the continuous or periodic evaluation of groundwater quality or the detection of soil vapors as a method of release detection.

"Operational life" means the period beginning from the time installation of the tank or system is commenced until it is properly closed or removed as provided for in this Chapter.

"Overfill" means a release that occurs when a petroleum storage tank is filled beyond its capacity, resulting in a discharge of regulated substance to the environment.

"PEI" means the Petroleum Equipment Institute.

"POC" means Point of Compliance.

"POE" means Point of Exposure.

"PSI" means pounds per square inch.

"PSTD" means Petroleum Storage Tank Division or Division.

"Pay-for-Performance (PFP)" means a process where an environmental consulting company (Consultant) guarantees by signing a mutual agreement (the contract) that a release of a regulated substance will be remediated to COC levels agreed to by the PSTD and the Consultant that are protective of human health, safety and the environment. This performance-based process encompasses several steps, but is not limited to the contract signed by an officer/owner of the environmental consulting company, the applicant and the Administrator of the Indemnity Fund and an agreed to reasonable price. Scheduled payments are distributed only as performance-based goals are attained.

"Permanent out of use" or "POU" means a petroleum storage tank system that is not in service/use, does not contain regulated substances, and is not intended to be placed back in service/use.

"Petroleum" means antifreeze, motor oil, gasoline, diesel, aviation fuel, and/or volatile blending materials used in motor fuels, like kerosene and ethanol and used oil.

"Pipe" or "Piping" means a hollow cylinder or tubular conduit constructed of non-earthen materials.

"Pipeline facilities" means new and existing pipe rights-of-way and any equipment, facilities, or buildings regulated under:

(A) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. § 1671, et seq.).

(B) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. § 2001, et seq.).

(C) The State Hazardous Liquid Transportation System Safety Act, § 47.1 et seq. of Title 52 of the Oklahoma Statutes.

(D) Intrastate pipeline facilities regulated under state laws.

"Point of Compliance" means a select location where the concentration of a chemical released must be at or below back-calculated levels. The back-calculated levels are such that estimated concentrations at the Point of Exposure are below health-based levels.

"Point of Exposure" means a location at which an individual or population may be exposed to site-specific Chemicals of Concern through ingestion, inhalation and/or dermal contact.

"Pollution" means contamination or other alteration of the physical, chemical or biological properties of any natural waters of the state, or contamination or alteration of the physical, chemical or biological properties of the land surface or subsurface, when such contamination or alteration will or is likely to create a nuisance or render the waters or land harmful to the public health, safety or welfare, or the environment.

"Positive sampling, testing, or monitoring results" means the results of sampling, testing, or monitoring using any of the release detection methods described in this Chapter that indicate a release from a petroleum storage tank system may have occurred.

"Potency Factor" means the plausible upper-bound estimate of the probability of a response (cancer) per unit intake of chemical over a lifetime. Also referred to as Slope Factor.

"RBCA" means Risk-Based Corrective Action.

"RfD" means Reference Dose.

"Reasonable Maximum Exposure" or **"RME"** means the highest rate of exposure that has a small probability (5 percent) of being exceeded.

"Reference Dose" or **"RfD"** means the estimate of the daily intake of a chemical over a lifetime that is not likely to result in any significant adverse health effects (including in sensitive subpopulations).

"Regulated substances" means antifreeze, motor oil, motor fuel, gasoline, kerosene, diesel or aviation fuel. It does not include compressed natural gas, liquid natural gas and propane.

"Release" means any spilling, overfilling, or leaking from a storage tank system that goes beyond the excavation zone, tankpit, or secondary containment facility into the native environment or any concentrations of a regulated substance that as determined by the PSTD poses a threat to human health or the environment.

"Release detection" means the methodology used in determining whether a release of regulated substances has occurred from a petroleum storage tank or system into the environment or into the interstitial area between the petroleum storage tank system and its secondary barrier.

"Remediation" process or technique used to reduce concentration levels of regulated substances in the soil and groundwater, and, or to reduce the presence of free product in the environment to levels that are protective of human health, safety and the environment. Generally remediation activities are scheduled after the site assessment is complete and the Remedial Action Plan (RAP) has been approved.

"Repair" means to restore a tank or petroleum storage tank system component to PSTD standards that has caused a release of regulated substances from the petroleum storage tank system.

"Reportable Quantity" or **"RQ"** means the amount of a hazardous substance release required to be reported to appropriate federal, state, and/or local officials.

"Residual Product" Petroleum hydrocarbons (product) that are absorbed or otherwise bound to geological materials (sand, silt, or clay) in any soil zone (vadose, capillary, or saturated zone), in such a manner that ground water in contact with the residual product or beneath the residual product is not contaminated with any petroleum constituent regulated by the OCC.

"Risk-Based Corrective Action" means all of the activities necessary to manage a site such that concentrations of chemicals from a release are at levels that are not detrimental to public health and the environment. It includes, but is not limited to, collection of site-specific data, analysis of the data to quantify the risk, comparison of the risk with acceptable levels, and implementation of engineering and non-engineering measures to ensure that concentrations of remaining Chemicals of Concern are not detrimental to human health.

"SCL" means Soil Cleanup Level.

"STI" means the Steel Tank Institute.

"Sacrificial anode" means a device used to reduce or prevent corrosion of a metal in an electrolyte by galvanic coupling to a more anodic metal.

"Saturated zone" means a subsurface zone below which all pore space is filled with water.

"Slope Factor" means the plausible upper-bound estimate of the probability of a response (cancer) per unit intake of chemical over a lifetime. Also referred to as Potency Factor.

"Smear Zone" Any soil zone containing petroleum hydrocarbons that can contaminate ground water in contact with the petroleum hydrocarbons or ground water beneath the petroleum hydrocarbons with petroleum constituents regulated by the PSTD.

"Soil zone" means and includes, but is not limited to, vadose zone, capillary fringe, or saturated soil zone.

"Source of contamination" means the location of the highest concentration of chemical contaminants in soil and groundwater.

"Source of release" means the location where regulated substances from a regulated tank system entered the environment.

"Spill" means a release that occurs during transfer operations of regulated substances to or from a petroleum storage tank system, resulting in a discharge of such substances into the environment.

"Storage Tank System" means one or a combination of tanks, including piping, hoses, dispensers and other system equipment used to contain regulated substances.

"Stormwater collection system" or **"wastewater collection system"** means piping, pumps, conduits, and any other equipment necessary to collect and transport surface water runoff 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 stormwater and wastewater does not include treatment except where incidental to conveyance.

"Surface impoundment" means 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.

"Suspected release (SOR)" means an event has occurred that establishes a reasonable basis to believe a release from a petroleum storage tank system may have occurred.

"TCLP" means toxicity characteristic leaching procedure, a test procedure for determining if a solid waste is hazardous because it exhibits toxicity characteristics as enforced under Resource Conservation and Recovery Act.

"TDS" means Total Dissolved Solids.

"TPH" means Total Petroleum Hydrocarbon(s).

"Target Risk Level" means the level set by the Oklahoma Corporation Commission that must be achieved at each site prior to a risk-based closure of the site. For example, for current receptors this level has been set at 1E-06 (one-in-a-million) and a Hazard Quotient of less than 1.0 (one).

"Temporary out of use" or "TOU" means the status of a petroleum storage tank system that has been taken out of service/use but not removed with the intent to return to service.

"Transporter" means any person who transports, delivers, or distributes any quantity of regulated substance from one point to another.

"UL" means Underwriter's Laboratory.

"USGS" means the United States Geological Survey.

"Usable groundwater" means fresh groundwater that may be produced from an aquifer for beneficial uses.

"Unsaturated zone" or "vadose zone" means the subsurface zone containing water under pressure less than that of the atmosphere, including water held by capillary forces within the soil,

and containing air or gases generally under atmospheric pressure. This zone is limited by the ground surface and the upper surfaces of the water table.

"Waters of the State" means all bodies or accumulations of water, surface and/or underground, natural or artificial, and public or private, which are contained within, flow through, or border upon any part of the State of Oklahoma or any portion thereof.

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 32 Ok Reg 811, eff 8-27-15; Amended at 33 Ok Reg 626, eff 8-25-16]

PART 5. SCOPE OF RULES

165:29-1-21. Overview of applicability and enforcement

This Chapter applies to the containment, control, abatement, and removal of releases of regulated substances from any petroleum storage tank system that causes pollution harmful to the public health, safety, welfare and the environment of the State of Oklahoma, regardless of whether the release occurs within or outside of the State.

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 32 Ok Reg 811, eff 8-27-15]

PART 7. NATIONAL INDUSTRY CODES

165:29-1-31. Sources of standards

The standards referenced in this Chapter are available for inspection at the Petroleum Storage Tank Division offices during regular business hours and from the following sources:

- (1) American Petroleum Institute (API), 1220 L. Street, N.W., Washington, D.C. 20005-4070. Telephone (202) 682-8375.
- (2) National Association of Corrosion Engineers (NACE), P.O. Box 218340, Houston, Texas 77218-8340. Telephone (281) 228-6200.
- (3) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02269-9101. Telephone (800) 344-3555.
- (4) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. Telephone (610) 832-9585.
- (5) Underwriter's Laboratory (UL), 333 Pfingston Road, Northbrook, Illinois 60062-2096. Telephone (847) 272-8800, ext. 42612.
- (6) Petroleum Equipment Institute (PEI), P.O. Box 2380, Tulsa, Oklahoma 74101-2380. Telephone (918) 494-9696.
- (7) Steel Tank Institute (STI), 570 Oakwood Road, Lake Zurich, Illinois 60047. Telephone (847) 438-8265.
- (8) American Society of Mechanical Engineers (ASME/ANSI), 22 Law Drive, P.O. Box 2300, Fairfield, New Jersey 07007-2300. Telephone (800) 843-2763.
- (9) National Ground Water Association (formerly National Water Well Association), 601 Dempsey Road, Westerville, Ohio 43081. Telephone (800) 551-7379.
- (10) United States Environmental Protection Agency

(A) National Service Center for Environmental Publications (NSCEP), Box 42419, Cincinnati, Ohio 45242. Telephone (800) 490-9198.

(B) Office of Underground Storage Tanks (OUST), 1200 Pennsylvania Avenue N.W., Mail Code 5401G, Washington, DC 20460. Telephone (800) 424-9346.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01]

165:29-1-32. Incorporated codes and standards

Specific references to documents listed in (1) through (13) below are made throughout this Chapter. Each of these documents or parts thereof are adopted and incorporated by reference as standards, but only to the extent that they are specifically referenced in this Chapter. These rules will supercede in any conflict between these rules and any standard. These codes and standards will be updated periodically through a formal rulemaking procedure initiated by PSTD to reflect any substantive or relevant changes.

(1) National Fire Protection Association Standards:

(A) Standard Number 30, 2015, "Flammable and Combustible Liquids Code."

(B) Standard Number 329, 2015, Handling Releases of Flammable and Combustible Liquids and Gases."

(C) Standard Number 385, 2012, "Tank Vehicles for Flammable and Combustible Liquids."

(D) Standard Number 326, 2015, "Safeguarding of Tanks and Containers for Entry, Cleaning or Repair."

(E) Standard Number 30A, 2015, "Motor Fuel Dispensing Facilities and Repair Garages."

(2) American Petroleum Institute Standards:

(A) Recommended Practice 1615, 2011, "Installation of Underground Hazardous Substances or Petroleum Storage Systems."

(B) Recommended Practice 1632, 2002, "Cathodic Protection of Underground Storage Tank and Piping Systems."

(C) Recommended Practice 1604, R2010, "Closure of Underground Petroleum Storage Tanks, 3rd Edition."

(D) Recommended Practice 1631, 2001, "Interior Lining and Periodic Inspection of Underground Storage Tanks."

(E) Recommended Practice 1621, 2012, "Bulk Liquid Stock Control at Retail Outlets."

(F) Recommended Practice 1626, 2010, "Storing and Handling Ethanol and Gasoline - Ethanol Blends at Distribution Terminals and Service Stations."

(G) Recommended Practice 1627, 1993, "Storing and Handling of Gasoline - Methanol/Cosolvent Blends at Distribution Terminals and Service Stations."

(H) Publication 1628, 1996, "A Guide to the Assessment and Remediation of Underground Petroleum Releases."

(I) Publication 2200, 2010, "Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines, 4th Edition."

(J) Publication 2015, 2001, "Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks."

(3) National Association of Corrosion Engineers:

(A) Standard Number SP0169-2013, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems."

- (B) Standard Number SP0285-2011, "External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."
- (C) Standard Number SP0286-2007, "Electrical Isolation of Cathodically Protected Pipelines."
- (4) Underwriter's Laboratory Standards:
 - (A) Standard UL58, 9th Edition, 1996, "Steel Underground Tanks for Flammable and Combustible Liquids."
 - (B) Standard UL1316, Bulletin-2013, "Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures."
 - (C) Standard UL1746, Bulletin-2013, "External Corrosion Protection Systems for Steel Underground Storage Tanks."
 - (D) Standard UL567, Bulletin-2012, "Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Petroleum Products and LP-Gas."
- (5) Petroleum Equipment Institute PEI/RP 100 (2011 Edition), "Recommended Practices for Installation of Underground Liquid Storage Systems."
- (6) Steel Tank Institute F894, ACT-100, "Specification for External Corrosion Protection of FRP Composite Underground Steel Storage Tanks 2006."
- (7) Factory Mutual 1920 (2007), "Pipe Coupling and Fitting for Aboveground Fire Protection Systems."
- (8) National Leak Prevention Association Standard 631, "Spill Prevention, Minimum 10 Year Life Extension, Existing Steel UST by Lining Without Additional Cathodic Protection."
- (9) National Water Well Association, 1986, "RCRA Ground Water Monitoring Technical Enforcement Guidance Document (TEGD)."
- (10) American Society for Testing and Materials, ASTM Designation: E 1739-95 2015, Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites."
- (11) U.S. Environmental Protection Agency Office of Water, 1997, Drinking Water Advisory: Consumer Acceptability Advice on Health Effects Analysis on Methyl Tertiary-Butyl Ether (MtBE).

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 32 Ok Reg 811, eff 8-27-15; Amended at 33 Ok Reg 626, eff 8-25-16]

PART 9. NOTIFICATION AND REPORTING REQUIREMENTS [REVOKED]

165:29-1-41. General reporting requirements [REVOKED]

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

165:29-1-42. Releases [REVOKED]

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

165:29-1-43. Sampling, testing, and monitoring results [REVOKED]

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

165:29-1-44. Corrective action [REVOKED]

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

SUBCHAPTER 3. RELEASE PREVENTION, DETECTION AND CORRECTION

PART 1. RELEASE PROHIBITION, REPORTING, AND INVESTIGATION

165:29-3-1. Release prohibition

The intentional release of regulated substances from a petroleum storage tank or system is absolutely prohibited. No person shall knowingly allow a confirmed or suspected release of regulated substances from a petroleum storage tank or system to continue without investigation as required by this Chapter. Owners and operators of all petroleum storage tank systems must ensure that releases due to spills and overfills do not occur. The requirements of this Chapter apply to all confirmed and suspected releases.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-3-2. Release reporting

(a) These reporting requirements do not relieve the owner or operator of the responsibility to take corrective action as required by this Subchapter to protect human health and the environment, including the containment and cleanup of spills and overfills that are not required to be reported.

(b) All petroleum storage tank system owners, operators, their agents and employees must report any of the following events to PSTD by telephone at 405-521-4683 or 1-888-621-5878 (if after hours or on weekends or holidays, contact the PSTD emergency number at 405-823-0994) within 24 hours of discovering the substances, conditions or monitoring results. Owners or operators must send written confirmation within 20 days in accordance with the release investigation and confirmation requirements of this Subchapter.

(1) The discovery of released regulated substances at the petroleum storage tank system facility or in the surrounding area including but not limited to the presence of free product or vapors in soils, basements, crawlspaces, sewer and utility lines, and nearby surface water whether on-site or off-site.

(2) Any unusual operating conditions observed by the owner or operator, like the unexplained erratic behavior of product dispensing equipment, the sudden loss of product from the petroleum storage tank system, or an unexplained presence of water in the tank, or liquid in the interstitial space of secondarily contained systems, unless the system equipment or component is found not to be releasing regulated substances to the environment; any defective system equipment or component is immediately repaired or replaced; for secondarily contained systems, any liquid in the interstitial space not used as part of the interstitial monitoring method (for example brine filled) is immediately removed.

(3) An unusual level of vapor on the site that is of unknown origin. A vapor monitor well reading in excess of 4,000 units/ppm, or 1,500 units/ppm for diesel storage tanks, must be reported to PSTD within 24 hours of receiving the report by the owner or operator or any of

his or her employees at the facility. If diesel and gasoline tanks share the same tankpit, the reporting level is 1,500 units/ppm. Within 10 days, the owner or operator must submit to PSTD all vapor monitoring well data, including background data, for the last 12 months. Upon examination of the submitted data, PSTD will advise the owner or operator what action, if any, he or she needs to take. Whenever these vapor thresholds are exceeded the tank owner must provide alternative test results that confirm the petroleum storage tank system is currently not leaking.

(c) Monitoring results, including investigation of an alarm, must be reported within 24 hours of the owner or operator's receipt of them; and PSTD will advise what action should be taken to determine whether or not a release has occurred, unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated, or replaced, and additional monitoring does not confirm the initial result;

(2) The leak is contained in the secondary containment and;

(A) Any liquid in the interstitial space not used as the interstitial monitoring method is immediately removed.

(B) Any defective system equipment or component is immediately repaired or replaced.

(3) The alarm was investigated and determined to be a non-release event (for example, from a power surge or caused by filling the tank during release detection testing).

(d) All owners and/or operators of petroleum storage tank systems shall maintain records of all reportable and nonreportable events listed in 165:29-3-2 of Commission rules sufficient to permit adequate inspection and review by PSTD. These records shall be kept in permanent form for 3 years following the date of the event. If any of the possible, probable, or definite release conditions in this Section are not reported within 24 hours, the owner or operator must be prepared to provide documentation or evidence that would reasonably indicate an owner or operator's knowledge of release conditions or monitoring results was delayed.

(e) The owner or operator of a petroleum storage tank system must maintain records of all reportable and nonreportable events so that adequate inspection and review can be made by PSTD. These records must be kept for 3 years following the date of the event.

(f) While aboveground petroleum releases of less than 25 gallons need not be reported, they must be recorded by the owner or operator and cleaned up immediately.

(g) Any releases requiring emergency corrective action must be reported immediately to PSTD. After office hours, weekends or holidays, calls must be reported to PSTD's emergency number at 405-823-0994.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09, Amended at 30 Ok Reg 594, eff 7-1-13; Amended at 32 Ok Reg 811, eff 8-27-15; Amended at 33 Ok Reg 626, eff 8-25-16]

165:29-3-3. Release investigation; confirmed release; suspected release; emergency suspected release and release reporting

(a) **Duty to inspect for release.** Owners and operators of storage tanks must routinely inspect and conduct necessary testing of their storage tanks to prevent spilling, overfilling, or leaking from a storage tank system into the native environment. The owner or operator of a petroleum storage tank system must take the following steps or use other procedures approved by PSTD:

(1) **System test.** Owners or operators must conduct petroleum storage tank system tests that determine whether a leak exists in the portion of the tank that routinely contains regulated substances and the attached delivery piping. If the test results for the system, tank, or delivery piping indicate that a leak exists, the owner or operator must repair, replace, or upgrade the petroleum storage tank system and begin a site check. Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if indicator chemical concentrations detected in soil or water are not the basis for suspecting a release. However, the owner or operator must conduct a site check as described in (B) below if the test results for the system, tank and delivery piping do not indicate that a leak exists, but indicator chemical concentrations detected in soil or water are above action levels cited in (b) of this Section.

(2) **Site check.** The owner or operator must measure for the presence of a release where released regulated substances are most likely to be present at the petroleum storage tank system site. In selecting sample types, locations, depths and measurement methods, owners or operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of native soil, the depth of groundwater, and other factors appropriate for identifying the presence and source of the release. Sample locations should be approximately 5 feet from the outside of the petroleum storage tank system in native soil or another location approved by the PSTD. Analyses for both BTEX constituents and the appropriate TPH must be obtained in all cases. For sites where used oil may be involved, as determined through a TPH analysis, TCLP analysis for metals, semi-volatiles, and volatiles may be required. The TCLP results will be used on a case-by-case basis to establish cleanup levels or to refer the case to the DEQ for regulation. The selected method must be able to detect the most stringent cleanup levels required in this Chapter. The Total Petroleum Hydrocarbon (TPH) Laboratory Methodology 418.1 will not be accepted for this Chapter.

(A) If the test results for soil and/or groundwater taken outside the excavation zone or the petroleum storage tank system site confirm that a release has occurred, the owner or operator must begin the required corrective action in accordance with this Subchapter.

(B) If the test results for the native soil and/or groundwater or the petroleum storage tank system site do not indicate that a release has occurred, further investigation is not required.

(b) **Confirmed release.**

(1) When one or more of the following is present from a petroleum storage tank system, a confirmed release case may be activated by PSTD staff.

(A) Free product is found anywhere.

(B) Contaminated groundwater is found outside the excavation zone.

(C) Contaminated "soil zone" is found outside the excavation zone.

(2) Any contamination from a regulated substance having concentrations determined by PSTD to be harmful to human health or the environment.

(3) Laboratory analysis of levels of chemical constituent concentrations that may be required to confirm a case are:

(A) Benzene

(i) Native Soils - 0.5 mg/kg

(ii) Groundwater - 0.005 mg/l

(B) Toluene

(i) Native Soils - 40.0 mg/kg

- (ii) Groundwater - 1.0 mg/l
- (C) Ethyl Benzene
 - (i) Native Soils - 15.0 mg/kg
 - (ii) Groundwater - 0.7 mg/l
- (D) Xylene
 - (i) Native Soils - 200.0 mg/kg
 - (ii) Groundwater - 10.0 mg/l
- (E) TPH
 - (i) Native Soils - 50.0 mg/kg
 - (ii) Groundwater - 2.0 mg/l
 - (iii) If BTEX concentrations are below action levels, a TPH concentration of 500 mg/kg may be required to confirm a case.

(c) **Suspected release.** When an owner, operator, or their agent has reason to believe that a release from a storage tank may have occurred, he or she must notify PSTD within 24 hours and receive authorization from the Division prior to initiating any investigation for which subsequent payment from the Indemnity Fund may be sought.

(d) **Emergency suspected release.** Owners, operators, or their agent may begin investigation of suspected releases when the suspected release may cause immediate harm to the public health, safety, welfare or the environment. The Petroleum Storage Tank Division will approve and reimburse expenses for an investigation after it has been performed and prior to the issuance of a Suspicion of Release by the Petroleum Storage Tank Division when the owner or operator has reasonably acted upon the belief that the suspected release gave rise to the need for immediate emergency action. The determination of whether or not action was reasonable is within the discretion of PSTD.

(e) **Release reporting.** Within 20 days after the reporting of a release, the owner or operator must submit a report to PSTD summarizing the steps taken under this Section and any resulting information. If a release is confirmed through performance of the steps taken under this Section, then the report must be submitted on PSTD-specified forms and no other abatement measures or site checks are required.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 31 Ok Reg 1022, eff 9-12-14; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-3-4. Activation of a case [REVOKED]

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

PART 3. REMOVAL AND CLOSURE OF PETROLEUM STORAGE TANK SYSTEMS

165:29-3-65. Assessing the site at closure or change in service

(a) As directed by PSTD, backfill material that is removed when an underground storage tank or associated piping is removed from the subsurface may be tested for BTEX, TPH (GRO and/or DRO, whichever is appropriate) and total lead, if appropriate.

(b) As directed by PSTD excavated backfill material may be sampled at a rate of one composite sample (composed of 10 grab samples) per 50 cubic yards of material, which must be analyzed by a laboratory certified by DEQ.

(c) The consultant or tankowner may put excavated backfill back into the tankpit while waiting for sampling results, but if the backfill needs to be re-excavated and replaced with clean backfill, the re-excavation is not a reimbursable expense.

(d) After reviewing analytical results, PSTD will determine if concentrations of Chemicals of Concern are at levels that pose a threat to human health, safety and/or the environment, and should be removed. This decision will be based upon analytical levels and specific site conditions such as, but not limited to, lithology of the tankpit walls and surrounding native soils, gradient and direction of groundwater flow, and potential receptor exposure to Chemicals of Concern.

(e) Contaminated backfill and tankpit water that poses a threat to human health and/or the environment as determined by PSTD must be removed from the site to a proper disposal site and replaced by clean backfill, or may be remediated above grade to concentrations below action levels or ORBCA-related cleanup levels.

(f) Expenses incurred in the removal and disposal (but not re-excavation, see (c) above) of contaminated backfill and tankpit water may be reimbursable by the Fund only with written or documented verbal pre-approval (i.e., confirmed by fax or email) from PSTD Technical staff. Reimbursement of eligible backfill disposal costs can only be paid when associated with an active, confirmed release case.

(g) Reimbursable backfill expenses identified in Section (f) above do not apply to new tank installations. If existing tanks are removed and replaced with new tanks, in order to ensure the efficacy of the cathodic protection, old backfill must be removed and new backfill must be placed in the tankpit. If the backfill is contaminated to the degree that it must be taken to a landfill, backfill removal and disposal costs are not reimbursable expenses.

(h) No soil, backfill material, or groundwater is to be removed from the site without prior PSTD approval and proper laboratory characterization unless otherwise directed by PSTD.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 32 Ok Reg 811, eff 8-27-15]

PART 5. CORRECTIVE ACTION REQUIREMENTS

165:29-3-71. General applicability; exception

(a) Every owner or operator of a petroleum storage tank system must, in response to a confirmed release from a petroleum storage tank system, comply with the requirements of this Part, with the exception of those systems excluded from regulation in Chapter 25 and Chapter 26 of Commission rules.

(b) All work associated with the assessment, characterization, investigation, remedial action, and closure from a release or suspected release of a regulated substance should be pre-approved by PSTD.

(c) Upon confirmation of a release, or after a release from the petroleum storage tank system is identified, the owner or operator must perform the following initial response actions:

- (1) Report the release to PSTD either by telephone, electronic mail or fax. If after hours, contact the PSTD emergency number at 405-823-0994.
 - (2) Take immediate action to prevent any further release of the regulated substance into the environment, and prove that any system still containing fuel is tight by having a system tightness test performed.
 - (3) Identify and mitigate any fire, explosion, and vapor hazards.
 - (4) Remove free product to the extent practicable as determined by PSTD while continuing, as necessary, any actions required by this Subchapter.
- (d) Any corrective action work performed at a release site must have prior documented verbal or written approval by a member of PSTD staff to be considered reimbursable by the Indemnity Fund. This requirement for pre-approval excludes required emergency spill mitigation measures. Additionally, field work associated with all corrective actions requires 48-hour (two working days excluding holidays and weekends) written notice to PSTD of scheduled field activities. Notice must be made to the PSTD staff member assigned to the case, his/her Supervisor and the PSTD Technical Manager.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 32 Ok Reg 811, eff 8-27-15; Amended at 33 Ok Reg 626, eff 8-25-16]

165:29-3-72. Prescribed forms

All reporting for investigating and corrective action requirements must be on forms specified by the PSTD.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

165:29-3-73. Initial response

Upon confirmation of a release or after a release from a petroleum storage tank system is identified in any other manner, the owner or operator must perform the following initial response actions within 24 hours of a release:

- (1) Report the release to the PSTD either by telephone, electronic mail, or facsimile.
- (2) Take and document immediate action to prevent any further release of the regulated substance into the environment.
- (3) Identify any fire, explosion, and vapor hazards and mitigate them immediately.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

165:29-3-74. Initial abatement measures and site check

(a) Unless directed to do otherwise by PSTD, the owner or operator must perform the following abatement measures:

- (1) Remove as much of the regulated substance from the leaking petroleum storage tank system as is necessary to prevent further release to the environment.

(2) Visually inspect the petroleum storage tank system for any aboveground releases or exposed below-ground releases and prevent further migration of the released substance into surrounding soils and the waters of the state.

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the petroleum storage tank system excavation zone and entered into subsurface structures such as sewers or basements.

(4) Remedy hazards posed by impacted soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. All remedies, including but not limited to treatment or disposal of soils, must comply with applicable state and local requirements where applicable.

(5) Measure for the presence of a release where the released regulated substances are most likely to be present at the petroleum storage tank site, unless the presence and source of the release have been confirmed in accordance with the site check or the closure site assessment. In selecting sample types, sample locations and measurement methods, the owner and/or operator must consider the nature of the stored substance, the type of backfill, the depth to groundwater and other factors appropriate for identifying the presence and source of the release. Unless directed to do otherwise by PSTD, the owner or operator must analyze for the Chemicals of Concern (COCs) using approved analytical methods. For sites where used oil is involved, as determined through TPH analysis, TCLP analysis for metals, semi-volatiles and volatiles may be required. The selected analytical method must be able to detect concentrations of Chemicals of Concern below action levels. In addition, if a release occurs from any PSTD regulated petroleum storage tank system that is contaminated or combined with a non-regulated substance, the cleanup requirements for that particular release will be determined by DEQ.

(6) Investigate to determine the presence and amount of free product.

(b) Within 20 days after release confirmation, the owner or operator must submit a report to the PSTD on the specified form that summarizes the initial abatement steps taken and any resulting information or data, unless this report was required to be submitted under 165:29-3-3.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-3-75. Initial Site Characterization and Corrective Action Plan

(a) Unless otherwise directed by the PSTD, the owner or operator must assemble information about the site and the nature of the release, including information obtained while confirming the release or completing the abatement measures. The report must include, but is not necessarily limited to, the following:

- (1) Data on the nature and estimated quantity of the release.
- (2) Data from available sources and/or site investigations concerning the following factors:
 - (A) Surrounding populations.
 - (B) Water quality (regional).
 - (C) Use and approximate locations of water wells, basements, storm cellars, and all subsurface crawl spaces potentially affected by the release within 330 feet from the source, and any wellhead protection delineations.
 - (D) Subsurface soil conditions.
 - (E) Locations and depths of subsurface utilities and petroleum storage tank systems.

- (F) Climatological conditions.
- (G) Land use.
- (H) Depth to and quality of groundwater (site-specific).
- (I) Latitude and longitude of the center of the tankpit to the nearest second.
- (3) Results of the site check and/or the closure site assessment required by 165:29-3-65.
- (4) Results of the free product investigations.
- (b) Within 20 days of release confirmation or according to a schedule set by the PSTD, the owner or operator must submit the information collected in compliance with this Section to the PSTD, in a manner that demonstrates its applicability and technical adequacy.
- (c) The owner or operator must submit a Corrective Action Plan (CAP) to the PSTD as a separate part of the report required in this Section, identifying a plan of action to:
 - (1) Perform an ORBCA Tier 1A analysis to determine the need, if any, for remediation and/or additional ORBCA analyses.
 - (2) Monitor air, water, and soil.
 - (3) Remediate the release to such an extent that it no longer poses a threat to human health or safety or the environment.
- (d) On Tier 1A, Tier 2 and Tier 3 ORBCA, case prioritization will be established by the PSTD using the Storage Tank Prioritization Guidance Document.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

165:29-3-76. Tier 1A ORBCA

- (a) Unless otherwise directed by the PSTD, the owner or operator must compile information in order to assess the site using the Risk-Based Corrective Action (RBCA) process described in the ORBCA Guidance Document. (The ORBCA Guidance Document is available at the offices of the Petroleum Storage Tank Division of the Oklahoma Corporation Commission.) The RBCA process must be implemented with a three-tiered approach that must involve an increase in the level of data collection and analysis from one tier to the next. Some conservative default parameters under the Initial Site Characterization Tier 1A process must be replaced with more site-specific parameters under the Tier 2 and Tier 3 process. PSTD will review the results and recommendations at the completion of the Tier 1A analysis and decide if a more site-specific tiered analysis is required by initiating a Tier 2 or Tier 3 process, or whether remedial action should be performed as provided for in this Subchapter.
- (b) PSTD will only accept and review reports, worksheets, checklists, closure reports or other relevant documents which incorporate the RBCA process, or any other acceptable risk analysis, from a Commission Licensed Environmental Consultant.
- (c) The RBCA Tier 1A process is as follows:
 - (1) Tier 1A: Non-site-specific risk-based screening method used to determine corrective action goals using limited site-specific data.
 - (A) Tier 1A establishes conservative cleanup goals called modified Risk-Based Screening Levels (RBSLs). Only the Fate and Transport Parameters cited in the ORBCA Guidance Document may be replaced by site-specific information obtained through site investigation and assessment. Justification must be provided when changes in any of the default Fate and Transport Parameters are indicated. The default Exposure Factors cannot be modified, nor can degradation rates be used under a Tier 1A evaluation. This

evaluation must be performed using the models cited in Appendix C of the ORBCA Guidance Document. The modified RBSLs take into consideration regional characteristics, aesthetic criteria, and other appropriate standards such as Maximum Contaminant Levels (MCLs) for water. Tier 1A modified RBSLs are derived from standard exposure scenarios using current Reasonable Maximum Exposure (RME) toxicological parameters and conservative contaminant migration models. RBSL values are determined by the PSTD using 1 in 1,000,000 as a Target Risk Limit for carcinogens and a Hazard Quotient (HQ) not greater than 1.0 as a Target Risk Limit for non-carcinogens. 1 in 10,000 is the acceptable Target Risk Limit for carcinogens for future potential receptors.

(B) The most likely Point of Exposure (POE) for current and potential future beneficial use of fresh groundwater should be determined. The concentration at this Point of Exposure for each Chemical of Concern (COC) must not exceed the Target Risk Limits cited in this Section.

(C) Unless otherwise directed by PSTD under Tier 1A the owner or operator must drill and install a minimum of four (4) two-inch (2") diameter monitoring wells outside of the UST pit or AST containment or product piping trench excavation zones. These wells must be located as follows:

- (i) One well must be installed in an apparent upgradient location to any known potential source at the site on or as close to the release as possible.
- (ii) One well must be installed in a location most likely to be contaminated.
- (iii) One well must be installed in a location that will allow the determination of an accurate groundwater gradient.
- (iv) One well must be installed in the direction of the nearest probable Point of Exposure either at the nearest property line or fifty (50) feet from the source of contamination, whichever is closer, or at another location as determined by PSTD. This well will be the Point of Compliance (POC) well for the Tier 1A evaluation unless there is a Point of Exposure nearer to the source of contamination, in which case the Point of Exposure will also become the Point of Compliance. The concentration for each Chemical of Concern in the Point of Compliance well should not exceed the Tier 1A standards as calculated using the ORBCA Guidance Document. If a drinking water supply well has been identified within 330 feet of the site, groundwater MtBE must be tested at the Point of Compliance. 0.020 mg/L will be considered the level of concern for MtBE and may require further assessment and corrective action.

(2) Tier 1A: Risk-Based Screening Level corrective action goals developed using limited site-specific data.

(A) This evaluation must be performed using the same models as those which are cited in Appendix C of the Guidance Document.

(B) Only the Fate and Transport Parameters cited in the ORBCA Guidance Document may be replaced by site-specific information obtained through site investigation and assessment. Justification must be provided when changes in any of the Tier 1A default Fate and Transport Parameters are indicated. The Tier 1A default Exposure Factors cannot be modified, nor can degradation rates be used under a Tier 1A evaluation.

(3) Within 45 days of release confirmation, or according to a schedule established by PSTD, the owner or operator must submit the information required in the Tier 1A evaluation as a

report. This report must be submitted in a style and format as set forth in the ORBCA Guidance Document.

(d) PSTD may re-evaluate a Tier 1A analysis of a site, for the purpose of closure, on a case-by-case basis.

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 31 Ok Reg 1022, eff 9-12-14; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-3-77. Classification and prioritization [REVOKED]

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

165:29-3-78. Free product removal

At sites where an investigation indicates the presence of free product, the owner or operator must notify the PSTD within 24 hours that free product is located on site. The owner or operator must, as required by the PSTD as a result of the ORBCA tiered process, remove free product to the extent required by the PSTD while continuing, as necessary, any other actions required by this Subchapter. To meet the requirements of this Section, the owner or operator must, unless otherwise directed by the PSTD:

- (1) 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 state and federal regulations;
- (2) Use abatement of free product migration as a minimum objective for the design of the free product removal system;
- (3) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and
- (4) In the event free product is encountered in a utility trench, the owner or operator must advise the appropriate utility company and the PSTD of the presence of free product within 24 hours of discovery.
- (5) Using the form specified by the PSTD, prepare and submit to the PSTD within 45 days after discovering free product, continuing thereafter at intervals specified by the PSTD, a Free Product Removal Report that provides at least the following information:
 - (A) The name of the person(s) responsible for implementing the free product removal measures.
 - (B) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations.
 - (C) The depth to free product and to groundwater in each monitor well.
 - (D) The type of free product recovery system used.
 - (E) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located.
 - (F) The type of treatment applied to and the effluent quality expected from any discharge.
 - (G) The steps that have been or are being taken to obtain necessary permits for any discharge.
 - (H) The disposition of the recovered free product and PSTD Disposal/Recycler Report.

- (I) Any permits required by federal, state, or local agencies.
- (J) The screened interval for each monitor well.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

165:29-3-79. Tier 2 and Tier 3 ORBCA

(a) Tier 2: Site-Specific Corrective Action Goals

(1) Under Tier 2, the owner or operator may be required to perform additional site investigation as determined by PSTD. The Tier 2 analysis is conducted in order to determine Site-Specific Target Levels (SSTLs) and appropriate Points of Compliance (POCs). Tier 2 analysis differs from the Tier 1A analysis in that some of the conservative default parameter assumptions of Tier 1A are replaced with site-specific data and the plume is redefined accordingly.

(2) Target Risk Limits remain the same.

(3) A report in compliance with the ORBCA Guidance Document must be submitted to the PSTD in accordance with a schedule established by the PSTD and in a style and format as set forth in the ORBCA Guidance Document.

(b) Tier 3: Enhanced Site-Specific Corrective Action Goals

(1) Where, in the determination of, PSTD, site or near-site conditions dictate more detailed site assessment, the owner or operator may be required to perform a risk analysis using probabilistic evaluations and sophisticated chemical fate and transport models. The extent of this additional site assessment and risk analysis model must be acceptable to the PSTD and must follow the ORBCA Guidance Document.

(2) Target Risk Limits remain the same.

(3) A report in compliance with the ORBCA Guidance Document must be submitted to PSTD in accordance with a schedule established by PSTD and in a style and format as set forth in the ORBCA Guidance Document.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

165:29-3-80. Remedial Action Plan

(a) At any point after reviewing the information submitted, PSTD may require additional information or a Remedial Action Plan for contaminated soils and groundwater. If a plan is required, it must be submitted on forms or in the format specified by PSTD.

(b) PSTD will approve a Remedial Action Plan only after the Licensed Environmental Consultant ensures that implementation of the plan will adequately protect human health, safety, and the environment as determined by using the process outlined in the ORBCA Guidance Document.

(c) As directed by PSTD, the owner or operator must implement the Remedial Action Plan, including any modifications to the plan made by PSTD. Implementation for the purposes of this Chapter means that the Remedial Action Plan approved by PSTD is fully operational and is performing the task for which it was designed.

(d) The owner or operator will be required to perform remediation and compliance monitoring as directed by PSTD.

(e) The owner or operator may, with verbal pre-approval documented by fax or email of PSTD staff, begin cleanup of soil and groundwater before the Remedial Action Plan is approved, provided that the owner or operator:

- (1) Notify PSTD of the intention to begin cleanup at least seven days prior to initiating any cleanup action, unless it is an emergency.
- (2) Comply with any conditions imposed by PSTD, including halting cleanup or mitigating adverse consequences from cleanup activities.
- (3) Incorporate these self-initiated cleanup measures in the Remedial Action Plan or closure by risk assessment that is submitted to PSTD for approval.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-3-81. Property owners affected by releases; notice

(a) Upon confirmation that soil and/or groundwater contamination is above action levels, owners or operators must, at a minimum, notify adjacent or abutting property owners that have been, or may be impacted by the release. This notice should be made just after delineation of the release to Tier 2 clean-up levels or prior to a case closure based on Tier 1A modified RBSL's. The notice, unless otherwise directed by the PSTD, must include at a minimum:

- (1) The origin and extent of the release; impacted party, upon written request to owner/operator may receive reports;
- (2) The nature of the substance(s) released;
- (3) The name, address and telephone number of the owner or operator or his or her designee who may be contacted for more information about the release;
- (4) The phone number and name of the Project Environmental Analyst at the PSTD whom the property owner can contact for additional information.
- (5) If an adjacent or abutting property owner that has been or may be impacted by a release requests, in writing, copies of all reports, it is the responsibility of the owner/operator to assure past and future reports are delivered to the requesting property owner.

(b) For each confirmed release that requires remediation or closure by a risk assessment or Risk-Based Corrective Action, the owner or operator must notify property owners that have been or may be impacted by the release and provide:

- (1) The origin and extent of the release;
- (2) The nature of the substance(s) released;
- (3) A description of any planned remedial action or closure based upon a risk assessment of the release;
- (4) The name, address and telephone number of the owner or operator or his or her designee and of the PSTD Project Environmental Analyst working on the case who may be contacted for more information about the release, including any planned response action; and
- (5) A statement that additional information about the release, including any planned response action, is on file with the PSTD and available for public review.

(c) The notices required by this Section must be given by certified mail/return receipt requested. Copies of the return receipts must be included in the Public Participation Report submitted to the PSTD.

(d) The PSTD must ensure that any and all information concerning the release is made available to the public for review upon request.

(e) Before approving a remediation plan or closure based upon risk assessment, the PSTD may hold a public meeting to consider comments on the proposed remediation plan or closure if there is sufficient public interest, or for any other reasons. If no comments have been received within (30) days of the receipt date of the certified mail notice letters required by paragraph (c) of this Section, then remediation or closure activities may commence. Any public comments related to the proposed remediation or case closure must be submitted in writing to the OCC to the attention of the PSTD Project Environmental Analyst working on this case, whose name and address will be on the notice letter.

(f) The notice required by this Section must also be given;

(1) after implementation, see OAC 165:29-3-80(c), of an approved Remedial Action Plan that does not achieve the cleanup levels established in the plan, and

(2) and, when termination of the plan is subsequently approved by the PSTD.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 30 Ok Reg 594, eff 7-1-13]

165:29-3-82. Closure of a case

(a) Closure occurs when PSTD has determined that the appropriate cleanup levels have been achieved for both BTEX and TPH and monitored as remaining below the cleanup level for a period of time as directed by PSTD, or when PSTD has determined the case is eligible for closure under Risk-Based Corrective Action.

(b) Upon approval of the request for case closure or as directed by PSTD, the owner or operator must submit a final closure report on a form specified by PSTD and certified by the Licensed Environmental Consultant which provides evidence of proper decommissioning of equipment and corrective action materials.

(c) All residual waste soil and/or fluid drums generated during case closure activities, or that remain on-site from prior case investigation activities, must be disposed of as part of case closure work and evidence of disposal of such drums documented in the final closure report. The final closure report will not be approved until all residual wastes have been disposed of.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 33 Ok Reg 626, eff 8-25-16]

165:29-3-83. Laboratory analysis

(a) All samples required to be collected and analyzed pursuant to this Chapter must be analyzed by a DEQ certified laboratory.

(b) The Total Petroleum Hydrocarbon (TPH) Lab Methodology EPA 418.1 will not be accepted for Part 5 of this Subchapter.

(c) When air sampling is required inside any structure or vapor monitoring well, the sampling and the method(s) used must be pre-approved in writing by PSTD.

[Source: Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05]

PART 7. LICENSING FOR ENVIRONMENTAL CONSULTANTS

165:29-3-90. Licensing for Environmental Consultants involved with closures, investigation and the remediation of releases from underground or aboveground storage tanks

- (a) Any individual seeking a license as an Environmental Consultant involved with closures, investigation and/or the remediation of releases from either underground or aboveground storage tank sites must complete an application form prepared by PSTD. The application form requires information regarding education, experience, knowledge of applicable state and federal regulations, industry standards and practices and references.
- (b) All applicants must qualify in the following manner:
- (1) Satisfy requirements of the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 (HAZWOPER) 40 hour course with eight- (8-) hour annual updates and the eight- (8-) hour supervisor course; must provide evidence of the successful completion of a PSTD-approved Risk-Based Corrective Action course, seminar or school. At a minimum this course must include sixteen (16) hours of risk assessment/risk analysis and fate and transport of chemicals in the environment and eight (8) hours of hands-on computer training with appropriate software; and
 - (2) Have seven (7) years' environmental experience with at least two (2) years' experience at regulated petroleum storage tank facilities and pass an examination, which must be taken no more frequently than once every six (6) months, authorized by the State of Oklahoma, which demonstrates knowledge of reference materials published by EPA:NWWA (Technical Enforcement Guidance Document-TEGD) and all applicable federal, state, and local regulations; or
 - (3) Have a four- (4-) year degree from an accredited college or university recognized by the state in Geology, Hydrology, Environmental Science, Environmental Engineering, Petroleum Engineering, Civil Engineering, Geologic Engineering or an equivalent engineering degree and at least four (4) or more years of environmental experience with at least two (2) years' experience at regulated petroleum storage tank facilities, and pass an examination approved by the PSTD. The examination will test an applicant's knowledge of industry standards, reference materials, laws and regulations, and may be taken no more frequently than once every six (6) months.
- (c) Licensed Environmental Consultants are required to pay fees for applications, examinations, and certifications prior to examination and license issuance.
- (d) Licensed Environmental Consultants must provide proof of sixteen (16) hours of PSTD-approved continuing professional education to PSTD every two (2) years.
- (e) Sampling, sampling at tank closures, investigations, and remediation or any other activities directed by PSTD must be under the supervision of a Licensed Environmental Consultant. All work requiring supervision by Licensed Environmental Consultants must contain a verification statement signed by the consultant in supervisory control.
- (f) Licensed Environmental Consultants must supervise and/or perform work only in the areas in which they are educated and/or experienced.
- (g) PSTD has the responsibility and for good cause shown, to deny, suspend, refuse to renew or revoke the license, or reprimand any Licensed Environmental Consultant.
- (h) Prior to any license suspension, revocation, or refusal to renew, the Director will have the matter investigated and a report prepared for his or her consideration. If the Director elects to

pursue suspension, revocation, or refusal to renew, the Licensee will be officially notified by the Director by Notice sent to the Licensee by certified mail/return receipt requested. The Notice will state the date and time of the hearing scheduled before a Commission Administrative Law Judge. The burden of proof of violations of this Chapter, as well as adherence to applicable State law, rests upon PSTD.

(i) This Section in no way exempts the Licensed Environmental Consultant from having to meet other applicable requirements as set by state and federal statutes and regulations from other state and federal agencies.

(j) Any licensee in violation of state law, enabling statute, PSTD rules and/or Commission orders may be subject to fines assessed by the Commission after notice and hearing.

[**Source:** Added at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Amended at 26 Ok Reg 1841, eff 7-1-09; Amended at 30 Ok Reg 594, eff 7-1-13; Amended at 32 Ok Reg 811, eff 8-27-15]

SUBCHAPTER 5. ADMINISTRATIVE PROVISIONS

165:29-5-1. Hearings, orders and appeals

(a) Hearings and appeals to enforce the provisions of this Chapter will be conducted in accordance with Chapter 5 of Commission rules.

(b) The Commission will issue orders it deems necessary to enforce the provisions of this Chapter to protect the public health, safety or welfare or the environment within the State of Oklahoma.

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 32 Ok Reg 811, eff 8-27-15]

165:29-5-2. Changes to rules [REVOKED]

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Revoked at 18 Ok Reg 1085, eff 5-11-01]

165:29-5-3. Notices [REVOKED]

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01; Amended at 22 Ok Reg 1785, eff 7-1-05; Revoked at 32 Ok Reg 811, eff 8-27-15]

165:29-5-4. Severability

If any part of this Chapter is adjudged by a court of competent jurisdiction to be invalid for any reason or in any manner, the remainder of this Chapter will not be affected and will remain in full force and effect.

[**Source:** Added at 17 Ok Reg 2317, eff 6-26-00; Amended at 18 Ok Reg 1085, eff 5-11-01]

[**Authority:** 42 U.S.C. §6991 et seq.; 17 O.S., §§ 301 et seq.]

[**Source:** Codified 6-26-00]