

**Title 10--DEPARTMENT OF NATURAL RESOURCES  
Division 26 --Petroleum and Hazardous Substance Storage Tanks  
Chapter 2--Underground Storage Tanks--Technical Regulations**

10 CSR 26-2.012 Definitions

*PURPOSE: This rule defines specific words used in this chapter and is being amended to define words found in proposed new and amended rules in the chapter.*

(1) Many definitions relevant to this rule are set forth in the underground storage tank law in section 319.100, RSMo. The definitions set forth in 40 CFR 280.12, July 1, 1998, are incorporated by reference, subject to the following additions, modifications, substitutions or deletions in the subsections:

(A) Definitions beginning with the letter A.

1. "Above ground storage tank (AST)" or "AST system" means any one (1) or a combination of tanks, including pipes connected thereto, used to contain an accumulation of regulated fuel as defined at 10 CSR 26-5.010(2) and the volume of which, including the volume of the aboveground pipes connected thereto, is more than ninety percent (90%) above the surface of the ground, and is utilized for the sale of products regulated by Chapter 414, RSMo. The term does not include those tanks listed below or aboveground storage tanks at petroleum pipeline terminals. The following are not considered aboveground storage tanks:

A. Underground storage tanks (USTs) as defined in 319.100, RSMo;

B. Farm or residential tanks, regardless of size, used for storing motor fuel for noncommercial purposes;

C. Tanks used for storing heating oil for consumptive use on the premises where stored;

D. Septic tanks;

E. Pipeline facilities, including gathering lines, regulated under:  
(I) The federal Natural Gas Pipeline Safety Act of 1968 (P.L. 90-481), as amended; or

(II) The federal Hazardous Liquid Pipeline Act of 1979 (P.L. 96-129), as amended;

F. Pipeline facilities regulated under state laws comparable to the provisions of law referred to in subsection (E) of this section;

G. Surface impoundments, pits, ponds, or lagoons;

H. Stormwater or waste water collection systems;

I. Flow-through process tanks;

J. Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;

K. Storage tanks situated in an underground area, such as a basement, cellar, mineworking, drift, shaft, or tunnel, if the storage tank is situated upon or above the surface of the floor; and

L. Transformers, circuit breakers or other equipment or machinery that contain regulated substances for operational purposes.

2. "Activity and use limitation" means legal or physical restrictions or limitations on the use of, or access to, a property to eliminate or minimize potential exposures to chemicals of concern, or to prevent activities that could interfere with the effectiveness of a corrective action, to ensure maintenance of a condition of "acceptable risk" to human health and the environment for as long as chemicals of concern may pose unacceptable risk.

3. "Age-adjusted individual" means a human that is continuously resident on a property from birth to thirty (30) years of age.

4. "Applicable target level" means risk-based target levels corresponding to exposure pathways that are complete under current or reasonably probable future conditions and may include:

- A. Default target levels;
- B. Tier one risk-based target levels; or
- C. Tier two or three site-specific target levels.

5. "Annual" means recurring, done or performed every 365 days.

6. "Annually" means at least once every 365 days.

(B) Definitions beginning with the letter B. (Reserved);

(C) Definitions beginning with the letter C.

1. "Cancer slope factor" means an upper bound estimate, approximating a 95<sup>th</sup> percentile confidence limit, of the increased cancer risk from a lifetime exposure to a chemical expressed in units of proportion per unit dose (i.e., mg/kg-day).

2. To the definition of "CERCLA" at 40 CFR 280.12, incorporated in this rule, add the words "by the Superfund Amendments and Reauthorization Act of 1986" after the words "as amended";

3. "Chemical of concern" means any of the chemicals found in Table 1 of 10 CSR 26-2.076.

4. "Child" means a human that is continuously resident on a property from birth to six (6) years of age.

(D) Definitions beginning with the letter D.

1. "Deed Notice" means information filed with the local recorder of deeds and recorded in the chain of title for a property which describes the condition and appropriate use of the property.

2. "Default target level" means the concentration of a chemical of concern that is the lowest of the tier one risk-based target levels for that chemical for all exposure pathways and below which human receptors are protected to an acceptable risk level from all complete exposure pathways for residential or other unrestricted land use.

3. "De minimus" means--

A. Any volume of regulated substance(s) contained in a tank with a capacity of less than one hundred ten (110) gallons; or

B. A very low concentration of regulated substances; or

C. Any volume of regulated substance(s) contained in an emergency backup tank that holds regulated substances for only a short period of time and is expeditiously emptied after use. (Comment: De minimus tanks include: swimming pools, permitted wastewater treatment facilities and chlorinated, potable water storage tanks. An oil-water separator is not a de minimus system unless the tank has a less than one hundred ten (110) gallon capacity.)

4. "Department," unless otherwise stated, means the Missouri Department of Natural Resources;

5. "Domestic use of groundwater" means the use of groundwater for indoor activities such as drinking, cooking, showering, or other similar activities by which a person could be exposed to chemicals of concern in the water via ingestion, dermal contact, and/or inhalation of vapors.

(E) Definitions beginning with the letter E.

1. "Engineering control" means a physical modification to a property or facility to reduce or eliminate the potential for exposure to chemicals of concern. Examples include surface and subsurface barriers, vapor collection and control systems, slurry walls, hydraulic groundwater controls, point of use water treatment, etc.;

2. In the definition for "existing tank system" in 40 CFR 280.12 incorporated in this rule, substitute the date "September 28, 1990" for the date "December 22, 1988";

3. "Exposure domain" means the geographic area of environmental media over which a receptor is exposed, or potentially exposed, to one or more chemicals of concern.

4. "Exposure pathway" means the course a chemical takes from a source to a receptor. A complete exposure pathway requires a contaminant, a means for the contaminant to reach the receptor (e.g., leaching to groundwater, volatiles moving from soil to indoor air, etc.), and a receptor.

(F) Definitions beginning with the letter F.

1. "Free product" means petroleum hydrocarbons that are present as a nonaqueous phase liquid.

(G) Definitions beginning with the letter G. (Reserved);

(H) Definitions beginning with the letter H.

1. "Hazard quotient" means the ratio of an exposure level to a chemical to a non-carcinogenic toxicity value for the chemical;

2. This definition shall apply in lieu of the definition of "hazardous substance UST system" in 40 CFR 280.12 incorporated in this rule. "Hazardous substance UST system" means a UST system that contains a hazardous substance defined in Section 101(14) of the CERCLA (but not including any substance regulated as a hazardous waste under the Missouri Hazardous Waste Management Law, sections 260.350-260.434, RSMo) or any mixture of these substances and petroleum, and which is not a petroleum UST system;

(I) Definitions beginning with the letter I.

1. The definition for "implementing agency" in 40 CFR 280.12 is not incorporated into this rule;

2. "Individual excess lifetime cancer risk" means the increase over background in an individual's probability of developing cancer over a lifetime due to exposure to a chemical;

3. "Inhalation unit risk" means the increase in the lifetime risk of an individual who is exposed for a lifetime to one (1) microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of a chemical in air;

4. "In-operation" means input or output that occurs on a regular basis for the tank's intended purpose.

5. The terms "in-service" and "in use" are equivalent and mean that the tank system contains more than one inch (1") of a regulated substance or residue or three-tenths percent (0.3%) by weight of the total capacity of the UST system of regulated substance. A tank is considered to be in-service and in-use beginning with the first input of a regulated substance into the tank system;

6. "Installer" means any person, partnership, corporation, company, business, firm, society, or association that installs part or all of an underground storage tank system.

(J) Definitions beginning with the letter J. (Reserved);

(K) Definitions beginning with the letter K. (Reserved);

(L) Definitions beginning with the letter L.

1. "Light non-aqueous phase liquid" means a liquid consisting of a solution of organic compounds which is less dense than water and forms a separate layer that floats on the water's surface. When released into the environment, LNAPL will exist in both mobile (referred to as "free product") and immobile (or entrapped) states.

2. "Long-term stewardship measure" means department-approved legal or physical restrictions or limitations, as well as informational devices, designed to eliminate or minimize the risk of exposures to chemicals of concern associated with the use of, or access to, a tank system, site, affected off-site property, or facility, or to prevent activities that could interfere with the effectiveness of a response action, for the duration of time that the chemicals pose an elevated risk. All long-term stewardship measures are

intended to ensure maintenance of a condition of acceptable risk to human health and the environment. Long-term stewardship measures include, but are not necessarily limited to, any one or more of the following:

A. Activity and use limitations;

B. Engineered controls accompanied by activity and use limitations;

C. Informational devices, such as a deed notice, a No Further Action letter issued by the department and recorded in a property chain of title, and publicly accessible information management systems developed and maintained by the department, if available and approved by the department.

(M) Definitions beginning with the letter M.

1. "Maximum contaminant level" means the federal maximum permissible level of a contaminant in drinking water, as set forth in 10 CSR 60-4;

2. "Month," unless otherwise stated, means 30 days;

3. "Monthly" means at least once every 30 days.

(N) Definitions beginning with the letter N.

1. In the definition for "new tank system" in 40 CFR 280.12 incorporated in this rule, substitute the date "September 28, 1990" for the date "December 22, 1988";

(O) Definitions beginning with the letter O.

1. In the definition for "operational life" in 40 CFR 280.12 incorporated in this rule, substitute "10 CSR 26-2.070-10 CSR 26-2.074" for "Subpart G."

2. "Outer edge of the area of release" means the point at which concentrations of chemicals of concern associated with a tank system release return to background or non-detect levels in all media.

3. The terms "out-of-service" and "out-of-use" are equivalent and mean that the tank system has been emptied so that no more than one inch (1") of regulated substance or residue or three-tenths percent (0.3%) by weight of the total capacity of the UST system remains.

4. The definition for "owner" in 40 CFR 280.12, is not incorporated in this rule and the definition in section 319.100(9), RSMo, shall be used instead;

(P) Definitions beginning with the letter P.

1. The definition for "person" in 40 CFR 280.12 is not incorporated in this rule and the definition in section 319.100(11), RSMo, shall be used instead;

2. "Petroleum storage tank" is defined at 319.100(13), RSMo;

(Q) Definitions beginning with the letter Q. (Reserved);

(R) Definitions beginning with the letter R.

1. "Reasonably anticipated future use" means the future use of a property that can be predicted with a reasonably high degree of certainty given, for instance,

historical use, current use, development or use plans, local government planning and zoning, regional trends, and community acceptance;

2. “Reference concentration” means an estimate, with uncertainty spanning perhaps an order of magnitude, of a continuous inhalation exposure to the human population, including sensitive subgroups, that is likely to be without an appreciable risk of deleterious effects during a lifetime;

3. “Reference dose” means an estimate, with uncertainty spanning perhaps an order of magnitude, of a daily oral exposure to the human population, including sensitive subgroups, that is likely to be without an appreciable risk of deleterious effects during a lifetime;

4. The definition for "regulated substance" in 40 CFR 280.12 is not incorporated in this rule, and the definition in section 319.100(14), RSMo, shall be used instead, with the following clarification:

A. “Regulated substance” includes other substances stored and approved for use as an alternative motor vehicle fuel by the United States Environmental Protection Agency, the Missouri Department of Agriculture, or the Missouri Department of Natural Resources, including, but not limited to:

I. Nonpetroleum or petroleum/nonpetroleum blended fuels such as biomass fuels, soydiesel or other biodiesels;

II. Neat alcohols (such as ethanol or methanol);

III. Alcohol-blended fuels; and

IV. Innovative or advanced technology petroleum fuels that are liquid at standard conditions of temperature or pressure (sixty degrees Fahrenheit (60°F) and 14.7 pounds per square inch absolute).

5. The definition for "release" in 40 CFR 280.12 is not incorporated in this rule, and the definition in section 319.100(15), RSMo, shall be used instead;

6. “Restrictive covenant” means a servitude creating legal restrictions or obligations with respect to real property related to contamination resulting from a release from a petroleum storage tank as defined in section 319.100 RSMo.;

7. “Risk-based target level” means the pathway and chemical-specific concentration of a chemical of concern in an environmental medium that meets an acceptable human health risk level. Risk-based target levels include the Tier 1 target levels published in these rules which were calculated by the department using standard models and default exposure factors, toxicity factors, physical and chemical properties, and contaminant fate and transport parameters. A “risk-based target level” is a corrective action standard, as referenced in section 319.109, RSMo;

8. “Route of exposure” means the manner in which the contaminant contacts or enters the receptor (e.g., ingestion, inhalation, dermal contact, etc.).

9. “Routinely contains regulated substance” means that a regulated substance regularly passes through the piping, but does not necessarily mean that the piping continuously holds a regulated substance. Satellite lines, gravity piping, and

remote fill lines, including lines from aboveground storage tank(s) to underground storage tank(s), all routinely contain a regulated substance.

(S) Definitions beginning with the letter S.

1. In lieu of the definition for "septic tank" in 40 CFR 280.12, the definition for "septic tank" shall be any watertight, covered receptacle designed and constructed to receive the discharge of sewage, separate solids from liquid, digest organic matter, store liquids through a period of detention and allow the clarified liquids to discharge to a soil treatment system;

2. "Site" means real property held under one (1) deed and on which contamination from an above ground or underground storage tank system originated;

3. "Site-specific target level" means pathway and chemical specific calculated risk-based target levels that are based on site-specific data and an acceptable risk level considered protective of human health and the environment, and include target levels calculated at tiers two and three of the risk-based corrective action process:

4. "Soil horizon" means a layer of soil having distinct characteristics and varying from adjacent layers;

5. "Storage tank" and "storage tank system" means either an above ground storage tank as defined at subsection (1)(A)1 of this rule or an underground storage tank as defined at subsection (1)(U)2 of this rule.

6. "Subsurface soil" means soil and other geologic materials below a depth of thirty-six inches (36") from the ground surface;

7. "Surface soil" or "surficial soil" means soil from the ground surface to a depth of thirty-six inches (36").

(T) Definitions beginning with the letter T.

1. "Triennial" means recurring, done or performed every 36 months.

3. "Triennially" means at least once every 36 months.

(U) Definitions beginning with the letter U.

1. "Unacceptable risk" means the combination of an exposure pathway that is complete under current or reasonably anticipated future conditions, and one or more chemicals of concern associated with a tank or tank system release that is present at a concentration such that the representative concentration or, for surficial soil in a residential setting, the maximum concentration exceeds the target level applicable to the exposure pathway and chemical or chemicals of concern;

A. For carcinogenic chemicals of concern, an unacceptable risk is one that exceeds an increased excess lifetime cancer risk of one in one hundred thousand;

B. For non-carcinogenic chemicals of concern, an unacceptable risk is one that exceeds a hazard quotient of one.

2. The definition for "underground storage tank" or "UST" found in 40 CFR 280.12 is not incorporated in this rule and the definition in section 319.100(16), RSMo, shall be used instead.

3. In the definition of "upgrade" in 40 CFR 280.12 incorporated in this rule, substitute the words "regulated substance" for the word "product."

(V) Definitions beginning with the letter V.

1. "Volatile chemical of concern" means a chemical with a dimensionless Henry's Law constant greater than  $1 \times 10^{-4}$  and a molecular weight less than 200. Of the chemicals of concern addressed by the rules in this chapter, the following are volatile: benzene, toluene, ethyl benzene, xylene, ethylene dibromide, ethylene dichloride, methyl tert butyl ether, tertiary amyl methyl ether, ethyl tert butyl ether, diisopropyl ether, acenaphthene, anthracene, fluorene, naphthalene, total petroleum hydrocarbons – gasoline range organics, and total petroleum hydrocarbons – diesel range organics.

(W) Definitions beginning with the letter W. (Reserved);

(X) Definitions beginning with the letter X. (Reserved);

(Y) Definitions beginning with the letter Y. (Reserved);

(Z) Definitions beginning with the letter Z. (Reserved).

AUTHORITY: sections 319.100, 319.105, 319.107, 319.111 and 319.114, RSMo 2000 and 319.109 and 319.137, RSMo Supp. 2009