



Title 10--DEPARTMENT OF NATURAL RESOURCES
Division [20]26 – [Clean Water Commission] Petroleum and Hazardous Substance
Storage Tanks
Chapter [10]2 -- Underground Storage Tanks--Technical Regulations

PROPOSED AMENDMENT

10 CSR [20]26-[10]2.012 Definitions. The rule is amended to change the rule number, clarify authority for the rule, and add definitions at sections (1)(A)1, 2, and 3; at sections (C)1 and 3; at sections (D)1 and 2; at sections (E)1 and 3; at section (H)2; at sections (I)2 and 3; at sections (L)1 and 2; at section (M)1; at sections 1, 2, 5, and 6; at sections (S)2, 34, 5, 6, and 7; and at section (U)3.

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.

PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of that material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.

(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. [(Reserved)]

1. "Activity and use limitation" means legal and/or physical restrictions or limitations on the use of, or access to, a property to eliminate or minimize exposure to human and other receptors 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, in accordance with 10 CSR 26-2.077(4), to human health, public welfare, and the environment. [a complete physical barrier or mechanism, or an enforceable legal restriction or obligation with respect to real property, that will protect human health, public welfare and the environment from contamination present on the property for as long as the contamination may pose unacceptable risk.] Examples include restrictive covenants and local ordinances accompanied by a memorandum of agreement between the local governmental body and the department.

Comment [n1]: Long-term stewardship (LTS)

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

3. "Applicable target level" means one of the following for each chemical of concern:

A. Default target level as defined below;

B. Risk-based target level as defined below for Tier 1 purposes; or

C. Site-specific target level as defined below for Tier 2 or Tier 3

purposes.

(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% confidence limit, of the increased cancer risk from a lifetime exposure to a chemical expressed in units of proportion per unit dose (mg/kg-day).

[1]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. "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 an affected property, which describes the appropriate use and condition of the property.

Comment [n2]: LTS

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 all exposure pathways and below which human receptors are protected from all complete exposure pathways for residential or other unrestricted land use. For each contaminant of concern, the default target levels shall be [either:

A. The target level shown in Table 3-1 of the Missouri Risk-Based Corrective Action (MRBCA) Process for Petroleum Storage Tanks guidance document published by the Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102-1076, dated January 2009 without any later amendments or additions, which is hereby incorporated by reference; or

B. A different value if the department determines in writing that a deviation is appropriate based on changes in the scientific data used to calculate such default target level.] the corresponding values found in Table 1 of 10 CSR 26-2.077.

[1.] [2.] **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.)

[2][3.] **4. "Department," unless otherwise stated, means the Missouri Department of Natural Resources;**

(E) Definitions beginning with the letter E.

1. "Engineered control" means an engineered and constructed physical mechanism to prevent direct human or environmental exposure to chemicals of concern. Examples include surface and subsurface barriers and vapor collection and control systems.

[1]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 area of environmental media that contributes to actual or potential exposure by a receptor to chemicals of concern at a site.

- (F) Definitions beginning with the letter F. (Reserved);
- (G) Definitions beginning with the letter G. (Reserved);
- (H) Definitions beginning with the letter H.

1. 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;

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

- (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.

[2]4. The terms "in-operation," "in-service," and "in-use" are equivalent and mean input or output that occurs on a regular basis for the tank's intended purpose. In determining the status of a tank, the department may consider factors including, but not limited to: routine input or outputs from the tank and the activity status of tank-related operations at the premises where the tank is located. A tank is considered to be in-operation, in-service, and in-use beginning with the first input of a regulated substance into the 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. [(Reserved)];

1. "Light non-aqueous phase liquids" (LNAPL) means liquids that are sparingly soluble in, immiscible with, and less dense than water. When released into the environment, LNAPL will exist in both mobile (or free; see definition of "Mobile LNAPL" at (1)(M)2 below) 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 or facility, or to prevent activities that could interfere with the effectiveness of a response action, for the

Comment [n3]: LTS

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 upon approval by the department:

- A. Activity and use limitations;
- B. Engineered controls accompanied by activity and use limitations;
- C. Informational devices, such as:

(I) Deed notices designed to alert actual and potential owners of a property of the environmental condition of the property and to describe property uses and activities associated with acceptable risk in light of those conditions; or

(II) Information management systems, if available and approved by the department.

(M) Definitions beginning with the letter M. [*Reserved*];

1. **“Maximum contaminant level” means the maximum permissible level of a contaminant in drinking water.**

2. **“Mobile light non-aqueous phase liquid (LNAPL)” means petroleum hydrocarbons present as a nonaqueous phase liquid capable of flowing into wells or excavations and of migrating as nonaqueous phase liquid through the subsurface.**

Comment [n4]: LNAPL (free product) issue – involves need for work plan and requirement to investigate both mobile and immobile LNAPL phases

(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 [20-10.070] **26-2.060** – 10 CSR [20-10.074]**26-2.064**" for "Subpart G."

2. The term "out-of-operation," "out-of-service," and "out-of-use" are equivalent and mean input or output activity no longer occurs on a regular basis for the tank's intended purpose.

3. 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;

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

(R) Definitions beginning with the letter R.

1. **“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;**

2. **“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;**

[1]3. 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;

[2]4. 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;

5. **"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;**

Comment [n5]: LTS

6. **"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 are calculated by the department using standard models and default exposure factors, toxicity factors, physical and chemical properties, and contaminant fate and transport parameters and are applicable at Tier 1 of the risk-based corrective action process. For each contaminant of concern, the risk-based target level shall be [either:**

A. *The risk-based target level shown in Tables 7-1(a) through 7-12 of the Missouri Risk-Based Corrective Action (MRBCA) Process for Petroleum Storage Tanks guidance document published by the Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102-1076, dated January 2009 without any later amendments or additions, which are hereby incorporated by reference; or*

B. *A different value if the department determines in writing that a deviation is appropriate based on changes in the scientific data used to calculate such risk-based target level.] the corresponding values found in Tables 2 through 7 of 10 CSR 26-2.077.*

(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 the current and future areal extent of contamination resulting from a petroleum release inclusive of contamination both on the property at which the contamination originated (i.e., the source property) and on all adjacent and neighboring properties onto which such contamination has or is likely to migrate;**

Comment [n6]: Based on comments received, the Department intends to revise the definition of "site" used here and throughout the proposed rules. The definition will be revised to mean the property on which the tanks are or were found and on which contamination originated. In this regard, the term "adjacent and nearby properties" will no longer be used in the rules; instead, properties next to or nearby the "site" property will be referred to as "off-site."

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.**

A. Site-specific target levels calculated at Tier 2 of the risk-based corrective action process using site-specific fate and transport data and the toxicity factors, physical and chemical properties, and exposure factors found in tables B-1, B-2, and B-3, respectively, and default models at Figures B.1 through B.30 found in appendix B of the January 2009 *Missouri Risk-Based Corrective Action (MRBCA) Process for Petroleum Storage Tanks* guidance document published by the Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102-0176, dated January 2009 without any later amendments or additions, which are

hereby incorporated by reference and are applicable unless the department determines in writing that a deviation is appropriate based on changes in the scientific data used to calculate the site-specific target levels;

B. Site-specific target levels calculated at tier three of the risk-based corrective action process using default, literature-derived, and/or site-specific exposure factors, physical and chemical properties, toxicity factors, and fate and transport data and default, alternative or a combination of default and alternative models are applicable unless the department determines or has determined that a deviation is appropriate based on changes in the scientific data used to calculate the site-specific target levels;

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

5. "Source property" means the property on which contamination from a petroleum storage tank originated;

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

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

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

(U) Definitions beginning with the letter U.

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

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. "Underground storage tank facility" means a [facility that has or had] property on which one (1) or more underground storage tanks, as defined in Section 319.100(16), RSMo currently exist or previously existed;

4. "Underground storage tank system" means an underground storage tank, connected piping, underground and above ground ancillary equipment, and containment system, if any.

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

(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 [1994] 2000 and [319.100,] 319.109[, 319.132] and 319.137, RSMo Supp. [1998] 2007. Original rule filed April 2, 1990, effective Sept. 28, 1990. Amended: Filed Dec. 31, 1991, effective Aug. 6, 1992. Amended: Filed Jan. 2, 1996, effective Aug. 30, 1996. Amended: Filed Jan. 14, 1997, effective Sept. 30, 1997. Amended: Filed April 1, 1999, effective March 30, 2000. Amended: Filed February 13, 2009.*

**Original authority: 319.100, RSMo 1989, amended 1991, 1993, 1996, 1998; 319.105, RSMo 1989; 319.107, RSMo 1986, amended 1994; 319.109, RSMo 1989, amended 1995; 319.111, RSMo 1989; 319.114, RSMo 1989; 319.132, RSMo 1991, amended 1995, 1996, 1998; and 319.137, RSMo 1989, amended 1993, 1995.*

Comment [n7]: Based on comments received, the Department intends to revise the definition of "site," as explained above. That revision will result in the deletion of this term ("source property") from the rules..

PUBLIC ENTITY COST: This proposed amendment will not cost public entities more than \$500 in the aggregate.

PRIVATE ENTITY COST: This proposed amendment will not cost private entities more than \$500 in the aggregate.

NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: The Missouri Hazardous Waste Management Commission will hold a public hearing on this rule action and others beginning at 10:30 a.m. on August 20, 2009, at the Elm Street Conference Center, 1738 East Elm Street, Jefferson City, Missouri. Any interested person will have the opportunity to testify. Advance notice is not required. However, anyone who wants to make arrangements to testify may do so prior to the hearing by contacting the secretary of the Hazardous Waste Management Commission at (573) 751-2747.

Any person may submit written comments on this rule action. Written comments shall be sent to the director of the Hazardous Waste Program at PO Box 176, Jefferson City, MO 65102-0176. To be accepted, written comments must be postmarked by midnight on August 27, 2009. Faxed or emailed correspondence will not be accepted. Please direct all inquiries to the Rules Coordinator of the Hazardous Waste Program, at 1738 E. Elm, Jefferson City, MO 65102, telephone (573) 751-3176.