

DEPARTMENT OF ENVIRONMENTAL CONSERVATION



18 AAC 78

Underground Storage Tanks

Public Comment Draft

September 25, 2014

**Comment Period Ends
November 26, 5:00 p.m.**

**Sean Parnell
Governor**

**Larry Hartig
Commissioner**

The lead-in language of 18 AAC 78.007 is amended to read:

18 AAC 78.007. UST procedures manual. The department's *Underground Storage Tanks Procedures Manual* (*UST Procedures Manual*), dated **August 18, 2014** [NOVEMBER 7, 2002], is adopted by reference. The department will use this version of the *UST Procedures Manual* in making determinations under this chapter. (Eff. 1/22/99, Register 149; am 6/25/99; Register 150; am 4/16/2000, Register 154; am 1/30/2003, Register 165; am __/__/____, Register ____)

Authority: AS 46.23.020 AS 46.03.365

The Editor's note for 18 AAC 78.007 is amended to read:

Editor's note: The *UST Procedures Manual*, adopted by reference in 18 AAC 78.007, may be **viewed at or obtained from** [OBTAINED FROM THE DEPARTMENT AND MAY BE REVIEWED AT] the department's Anchorage, Fairbanks, Juneau, and Soldotna offices **or the department's Internet website at <http://dec.alaska.gov/spar/guidance.htm>**.

...

18 AAC 78.090(d)(2)(A) is amended by adding a new sub-subparagraph to read:

(viii) all excavated soil must be assessed for levels of contamination to include field screening and analytical samples taken and tested in accordance with the *UST Procedures Manual*.

...

The lead-in language of 18 AAC 78.090 (e) is amended to read:

(e) The collection of field data and the interpretation and reporting of site characterization and site assessment data must be conducted or supervised by a qualified **environmental professional** [, IMPARTIAL THIRD PARTY] in accordance with the *UST*

Procedures Manual.

...

18 AAC 78.090(f) is amended to read:

(f) The department will, on a site-specific basis, waive the requirement for use of an impartial third party if the owner or operator demonstrates that work performed will be conducted or supervised by a qualified and objective person, and if the department determines that a waiver is protective of human health and safety, and of the environment, **and that strict compliance with the impartial third party requirement is not practicable.** To request a waiver under this subsection, **in addition to meeting the requirements of 18 AAC 78.390,** the owner or operator shall submit

(Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150; am 1/30/2003, Register 165; am 7/25/2012, Register 203; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.380 AS 46.03.405
AS 46.03.365

The Editor's note for 18 AAC 78.090 is repealed.

...

The lead-in language of 18 AAC 78.235 (b) is amended to read:

(b) The collection and interpretation of field data and the reporting of release investigation data must be conducted or supervised by a qualified **environmental professional,** [IMPARTIAL THIRD PARTY] in accordance with the *UST Procedures Manual*; **the owner or operator may request a waiver from the use of an impartial third party under the procedures of 18 AAC 78.090(f).**

...

18 AAC 78.235 (c) is repealed:

(c) repealed __/__/____. (Eff. 11/3/95, Register 136; am 1/22/99, Register 149; am 1/30/2003, Register 165; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.365

The Editor's note for 18 AAC 78.235 is amended to read:

Editor's note: The hazard ranking evaluation form mentioned in 18 AAC 78.235(a)(4) is located in the department's *UST Procedures Manual* as Appendix E [F].

...

18 AAC 78.250(b)(3) is amended to read:

(3) be prepared by a qualified environmental professional [, IMPARTIAL THIRD PARTY]; the owner or operator may request a waiver from the use of an impartial third party under the procedures of 18 AAC 78.090(f). (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.740 AS 46.04.070
AS 46.03.050 AS 46.03.745 AS 46.09.020
AS 46.03.365 AS 46.04.020

The Editor's note for 18 AAC 78.250 is amended to read:

Editor's note: The ASTM methods adopted by reference in 18 AAC 78.250 may be reviewed in the department's Anchorage, Fairbanks, Juneau, and Soldotna offices, and may be obtained from the ASTM International, Publications Department, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959; telephone (610) 832-9585; fax (610) 832-9555, or at www.astm.org [THE AMERICAN SOCIETY FOR TESTING AND

MATERIALS, 1916 RACE STREET, PHILADELPHIA, PENNSYLVANIA 19103].

...

18 AAC 78.271(a)(3) is amended to read:

(3) ensure that required sampling and analysis is conducted or supervised by a qualified **environmental professional. Sampling of soil stockpiles, bioremediation systems, surface water, or groundwater monitoring wells may be conducted by a qualified sampler as defined under 18 AAC 78.995(165) when a qualified environmental professional is not available.** [, IMPARTIAL THIRD PARTY;] the owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f). (Eff. 1/22/99, Register 149; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

...

18 AAC 78.273(a)(1)(C) is amended to read:

(C) a post-treatment sampling and analysis plan prepared by a qualified **environmental professional** [PERSON] in accordance with 18 AAC 75.355(b) to verify that the applicable cleanup levels have been met;

...

18 AAC 78.273(a)(1)(E) is amended to read:

(E) for an offsite treatment facility classified as a Category C or Category D facility, as described in the department's **Operation Requirements for Soil Treatment Facilities, dated March 15, 2013** [SOIL TREATMENT FACILITY

GUIDANCE DATED NOVEMBER 7, 2002], engineering plans and engineering record drawings for contaminated soil and water containment structures; the

Operation Requirements for Soil Treatment Facilities, dated March 15, 2013

[SOIL TREATMENT FACILITY GUIDANCE DATED NOVEMBER 7, 2002],

is adopted by reference; and

...

18 AAC 78.273(a)(2) is amended to read:

(2) If the facility is a Category C or Category D facility, as described in the

Operation Requirements for Soil Treatment Facilities [SOIL TREATMENT FACILITY

GUIDANCE], submit the following to the department before the owner or operator

accepts or treats contaminated soil: (Eff. 1/22/99, Register 149; am 1/30/2003, Register

165; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.740 AS 46.04.070

AS 46.03.050 AS 46.03.745 AS 46.09.020

AS 46.03.365 AS 46.04.020

The Editor's note for 18 AAC 78.273 is amended to read:

Editor's note: The department's **Operation Requirements for Soil Treatment Facilities** [SOIL TREATMENT FACILITY GUIDANCE], adopted by reference in 18 AAC

78.273(a)(1)(E), may be viewed at or **obtained** [REQUESTED] from the department's offices in

Anchorage, Fairbanks, Juneau, and Soldotna offices **or the department's Internet website at**

<http://dec.alaska.gov/spar/guidance.htm>.

...

18 AAC 78.274 (a)(4) is repealed and readopted to read:

(4) place petroleum-contaminated soil on a liner that meets the minimum specifications for the testing methods set out in Table B of this section;

TABLE B. BOTTOM LINER SPECIFICATIONS

Method	Coated Fabric	Extruded Fabric
Short-term storage of petroleum-contaminated soil (less than 180 days)		
Cold crack (ASTM D 2136-02(2012), updated 2012)	-60° F	-60° F
Black carbon content (ASTM D 1603-14, updated 2014)	2% or greater	2% or greater
Tensile strength (ASTM D 751-06(2011), updated 2011)	125 lbs (warp)	N/A
Mullen burst (ASTM D 751-06(2011), updated 2011)	250 psi	N/A
One inch tensile strength (ASTM D 882-12, updated August 2012)	N/A	25 lbs (warp)
One inch elongation MD (machine direction)	N/A	550%
Nominal thickness	10 mil	10 mil
Oil resistance (ASTM D 471-12a, updated December 2012)	No signs of deterioration and more than 80% retention of tensile and seam strength after immersion for 30 days at 73° F.	No signs of deterioration and more than 80% retention of tensile and seam strength after immersion for 30 days at 73° F.

Method	Coated Fabric	Extruded Fabric
Long-term storage of petroleum-contaminated soil (180 days to two years)		
Cold crack (ASTM D 2136-02(2012), updated 2012)	-60° F	-60° F
Black carbon content (ASTM D 1603-12, updated May 2012)	2% or greater	2% or greater
Tensile strength (ASTM D 751-06(2011), updated 2011)	300 lbs (warp)	N/A
Mullen burst (ASTM D 751-06(2011), updated May 2011)	500 psi	N/A
One inch tensile strength (ASTM D 882-12, updated August 2012)	N/A	45 lbs (warp)
One inch elongation MD (machine direction)	N/A	625%
Nominal thickness	20 mil	20 mil
Oil resistance (ASTM D 471-12a, updated December 2012)	No signs of deterioration and more than 80% retention of tensile and seam strength after immersion for 30 days at 73° F.	No signs of deterioration and more than 80% retention of tensile and seam strength after immersion for 30 days at 73° F.
The American Society for Testing and Materials (ASTM) methods referred to in this table are adopted by reference. "N/A" means not applicable.		

(Eff. 1/22/99, Register 149; am 6/25/99, Register 150; am 4/16/2000, Register 154; am

___/___/___, Register ___)

Authority: AS 46.03.020

AS 46.03.710

AS 46.04.020

AS 46.03.050

AS 46.03.740

AS 46.04.070

AS 46.03.365

AS 46.03.745

AS 46.09.020

The Editor's note of 18 AAC 75.274 is amended to read:

Editor's note: The ASTM methods adopted by reference in Table B of this section may be reviewed in the department's Anchorage, Fairbanks, Juneau, and Soldotna offices, and may be obtained from the ASTM International, Publications Department, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959; telephone (610) 832-9585; fax (610) 832-9555, or at www.astm.org.

...

The lead-in language of 18 AAC 78.275(a) is amended to read:

(a) The owner or operator shall ensure that soil and groundwater sampling for a release investigation or associated with a corrective action is conducted by a qualified **environmental professional** [IMPARTIAL THIRD PARTY] in accordance with 18 AAC 78.605 and the *UST Procedures Manual*. The owner or operator may request a waiver from the use of an impartial third party under the procedures set out in 18 AAC 78.090(f).

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The lead-in language of 18 AAC 78.275(d) is amended to read:

(d) Among the analytical methods set out in **Table 1 of the UST Procedures Manual adopted by reference in 18 AAC 78.007** [EPA'S TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, SW-846, AS ADOPTED BY REFERENCE IN 18 AAC 78.090], if there is more than one analytical method for a contaminant, an owner or operator may select any of those methods with a practical quantitation limit less than the applicable cleanup level. If only one analytical method has a practical

quantitation limit less than the applicable cleanup level, that method must be used. Analysis for petroleum contamination must follow the Alaska methods for petroleum hydrocarbons referred to in Table 1 of the *UST Procedures Manual*. (Eff. 1/22/99, Register 149; 6/25/99, Register 150; am 4/16/2000. Register 154; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.745 AS 46.04.070
AS 46.03.740 AS 46.04.020 AS 46.09.020

The Editor's note for 18 AAC 78.275 is amended to read:

Editor's note: As of Register 164 (January 2003), the regulations attorney made a technical revision under AS 44.62.125(b)(6)[, TO TABLE B IN 18 AAC 78.274].

...

The lead-in language of 18 AAC 78.276(a) is amended to read:

(a) The owner or operator shall submit a written final corrective action report to the department for each UST site at which corrective action activities have been completed. Based on analytical results, the report must demonstrate that the site meets the applicable cleanup levels and requirements specified in 18 AAC 78.600 - 18 AAC 78.625. The report must be prepared by a qualified **environmental professional** [, IMPARTIAL THIRD PARTY]. The owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f). (Eff. 1/22/99, Register 149; am 6/25/99, Register 150; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.740 AS 46.04.020
AS 46.03.050 AS 46.03.745 AS 46.04.070
AS 46.03.365 AS 46.03.755 AS 46.09.010
AS 46.03.710

...

18 AAC 78.600(e) is amended to read:

(d) If using method two or method three for determining the applicable soil cleanup levels as described in 18 AAC 75.340 and 18 AAC 75.341, or if applying the groundwater cleanup levels at Table C in 18 AAC 75.345, the owner or operator shall ensure that, after completing site corrective action activities, the risk from contaminants does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and a cumulative noncarcinogenic risk standard at a hazard index of **one, reported to one significant figure** [1.0] across all exposure pathways. Guidance on cumulative risk determinations is provided in the department's *Cumulative Risk Guidance*, dated **June 9, 2008** [NOVEMBER 7, 2002]. The department's *Cumulative Risk Guidance*, dated **June 9, 2008** [NOVEMBER 7, 2002] is adopted by reference.

...

The lead-in language of 18 AAC 78.600(i) is amended to read:

(i) The collection, interpretation, and reporting of data under this section must be conducted or supervised by a qualified **environmental professional** [, IMPARTIAL THIRD PARTY] as required by the *UST Procedures Manual*. The owner or operator may request a waiver from the use of an impartial third party under the procedures of 18 AAC 78.090(f). (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am 1/30/2003, Register 165; am __/__/____, Register __)

Authority:	AS 46.03.020	AS 46.03.740	AS 46.04.020
	AS 46.03.050	AS 46.03.745	AS 46.04.070
	AS 46.03.365	AS 46.03.822	AS 46.09.020

AS 46.03.710

The Editor's note for 18 AAC 78.600 is amended to read:

Editor's note: The department's *Cumulative Risk Guidance*, adopted by reference in 18 AAC 78.600(d), may be viewed at or **obtained** [REQUESTED] from the department's offices in Anchorage, Fairbanks, Juneau, and Soldotna **or the department's Internet website at <http://dec.alaska.gov/spar/guidance.htm>**.

...

The lead-in language of 18 AAC 78.930 is amended to read:

18 AAC 78.930. Waivers or modifications. If the department determines that a waiver or modification will be protective of human health and safety, and safety, and of the environment, the department will waive or modify the site characterization, site assessment, investigation, corrective action, or cleanup level provisions of this chapter based on a review of release quantity and quality, soil and groundwater conditions, surface waters and topography, geology, water and land uses, construction methods and materials, and any other environmental factor important to the evaluation. A person seeking a waiver or modification of a provision of this chapter under this section shall submit a written report to justify the request, and to demonstrate that the waiver or modification is protective of human health and safety, and of the environment. A qualified **environmental professional** [PERSON] shall prepare and sign the report submitted under this section. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150; am __/__/____, Register ____)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

...

18 AAC 78.995(81) is amended to read:

(81) "interim cleanup activities cost estimate" means an estimate, prepared by a qualified **environmental professional** [IMPARTIAL THIRD PARTY], of costs necessary to implement a corrective action plan;

...

18 AAC 78.995(118) is repealed:

(118) repealed __/__/__;

...

The lead-in language of 18 AAC 78.995(142) is amended to read:

(142) "supervise," as it applies to the supervision by a qualified **environmental professional** [PERSON], means

...

18 AAC 78.995 is amended by adding a new paragraph to read:

(164) "qualified environmental professional" means a person who is an impartial third party and who is qualified to perform site characterization and cleanup activities including fate and transport analysis, remediation design and other activities associated with contaminated sites; actively practices in the field of environmental science or another related scientific field including engineering, geology, physical science, hydrology, biology or chemistry or a related field; has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work; and meets one or more of the following minimum educational qualifications and experience requirements:

(A) has an undergraduate or graduate degree from a nationally or internationally accredited postsecondary institution in environmental science or engineering, geology, hydrology, physical science, biology, chemistry, or a related field and at least one year of professional experience in contaminated site characterization and cleanup activities under the direct supervision of a qualified environmental professional completed after the degree described in this paragraph was obtained;

(B) has a four year degree in any field or a two year associates degree in environmental science, geology, hydrology, physical science, biology, chemistry, or a related field from a nationally or internationally accredited postsecondary institution, and at least three years of professional experience in contaminated site characterization and cleanup activities under the direct supervision of a qualified environmental professional;

or

(C) is certified as an environmental technician under an apprenticeship program that conforms to the requirements of the U.S. Department of Labor, Employment and Training Administration, 29 CFR Part 29, Labor Standards for the Registration of Apprenticeship Programs, Amendment of Regulations, Final Rule, October 29, 2008, and has at least three additional years of professional experience in contaminated site characterization and cleanup activities under the direct supervision of a qualified environmental professional.

...

18 AAC 78.995 is amended by adding a new paragraph to read:

(165) "qualified sampler" means a person who is an impartial third party and who collects samples of environmental media, including soil, groundwater, and surface water, but excluding

air and soil gas, for laboratory analysis; has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work; and who has received the following minimum training:

(A) applied field work involving environmental sample collection of soil, groundwater or surface water associated with coursework for a completed degree in environmental science, engineering, geology, hydrology, physical science, or a related field, at a nationally or internationally accredited postsecondary institution; or

(B) an environmental sampling training program recognized by the department; and

(C) at least three months of experience in environmental sampling under the direct supervision of a qualified environmental professional.

(Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 1/27/94, Register 129; am 6/23/94, Register 130; am 8/4/94, Register 131; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; am 1/30/2003, Register 165; am 7/25/2012, Register 203; am __/__/____, Register __)

Authority:	AS 44.46.020	AS 46.03.070	AS 46.03.740
	AS 44.46.025	AS 46.03.365	AS 46.03.758
	AS 46.03.020	AS 46.03.375	Sec. 7, ch. 96, SLA 1990
	AS 46.03.050		