

**DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION**



**18 AAC 78**

**Underground Storage Tanks**

**Amended as of June 17, 2015**

**Articles 1, 2, 6, 8 and 9 only**

## **IMPORTANT NOTE TO READER**

THE REGULATIONS REPRODUCED HERE HAVE BEEN PROVIDED BY THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AS A PUBLIC COURTESY. WHILE EVERY EFFORT HAS BEEN MADE TO ASSURE THE ACCURACY OF THE REPRODUCED VERSION, THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION CANNOT GUARANTEE ITS ABSOLUTE ACCURACY. PAPER COPIES OF THE REGULATIONS AS ORIGINALLY FILED BY THE LIEUTENANT GOVERNOR ARE AVAILABLE FROM THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

THE REGULATIONS HAVE AN AFFECTIVE DATE OF JUNE 17, 2015, ARE IN REGISTER 214, AND WILL APPEAR IN OFFICIAL PUBLISHED FORM IN THE JULY 2015 SUPPLEMENT TO THE ALASKA ADMINISTRATIVE CODE.

**Article 1. Underground Storage Tanks.****Section**

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**18 AAC 78.005. Applicability; exemptions.** (a) Except as provided in (e) - (g) of this section, the requirements of this chapter apply to the owner and the operator of an underground storage tank or underground storage tank system (UST) that contains, has contained, or will contain, petroleum. In this chapter, "UST" means

(1) "underground storage tank" as that term is defined at AS 46.03.450(12); and

(2) "underground storage tank system" as that term is defined at AS 46.03.450(13).

(b) No person may own or operate a UST unless

(1) it is registered under 18 AAC 78.015;

(2) that person meets all applicable requirements of this chapter; and

(3) that person has provided proof of financial responsibility under 18 AAC 78.910.

(c) Repealed 11/3/95.

(d) Repealed 1/30/2003.

(e) The following USTs are exempt from the requirements of this chapter:

(1) a UST that holds a hazardous waste identified at 18 AAC 62.020, or a mixture of hazardous waste and petroleum; a system exempt under this paragraph is subject to the requirements of 18 AAC 62;

(2) a wastewater treatment tank system that is part of a wastewater treatment facility subject to 33 U.S.C. 1317(b) or 1342 (Clean Water Act); a system excluded under this paragraph is subject to the requirements of 18 AAC 72;

(3) equipment or machinery, including hydraulic lift tanks and electrical equipment tanks, containing petroleum for operational purposes;

(4) an emergency spill or overflow containment UST that is emptied within 24 hours after use;

(5) a tank used for storing heating oil for consumptive use on the premises where stored.

(f) The minimum requirements of 18 AAC 78.010(b), and if a release is suspected or confirmed, the requirements of 18 AAC 78.200 - 18 AAC 78.280 and 18 AAC 78.600 - 18 AAC 78.625, apply to the following USTs, but other requirements of this chapter do not apply to those USTs:

(1) a wastewater treatment tank system not exempt under (e)(2) of this section;

(2) a UST that contains a radioactive material regulated under 42 U.S.C. 2011 - 2114 (Atomic Energy Act of 1954);

(3) a UST that is part of an emergency generator system at a nuclear power generation facility regulated by the Nuclear Regulatory Commission under 10 C.F.R. Part 50, Appendix A;

(4) an airport hydrant fuel distribution system; and

(5) a UST with field-constructed tanks.

(g) A UST that stores fuel solely for use by emergency power generators is exempt from the release detection requirements of 18 AAC 78.060 - 18 AAC 78.070. However, a UST that stores fuel solely for use by emergency power generators, and the piping connected to that UST, must meet the requirements of 18 AAC 78.025(i) if

(1) the UST is installed on or after July 25, 2012, or if the UST or piping is installed on or after July 25, 2012 to replace a UST or piping connected to that UST; and

(2) the UST or piping is within 1,000 feet, as measured under 18 AAC 78.025(i)(1), of a community water system, potable water system, or sole-source aquifer. (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 1/30/2003, Register 165; am 7/25/2012, Register 203)

**Authority:** AS 46.03.020                      AS 46.03.400                      AS 46.03.380  
AS 46.03.365                      AS 46.03.405

**18 AAC 78.007. UST procedures manual.** The department's *Underground Storage Tanks Procedures Manual (UST Procedures Manual)*, dated August 18, 2014, 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 6/17/2015, Register 214)

**Authority:** AS 46.23.020      AS 46.03.365

**Editor's note:** The *UST Procedures Manual*, adopted by reference in 18 AAC 78.007, may be viewed at or obtained from 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 78.008. Operator training.** (a) Unless a UST has been permanently closed under 18 AAC 78.085, each operator of the UST shall successfully complete training that is appropriate under this section to the level of responsibility that the operator has.

(b) Each facility must have a designated Class A operator, Class B operator, and Class C operator. The Class A operator and Class B operator may be the same individual, if the individual successfully completes the training for each operator classification. Each Class A operator and Class B operator shall be designated in writing to the department. Each Class C operator shall be designated by the Class A operator or Class B operator in writing, and the written designation shall be maintained on site.

(c) Except as provided in (i) of this section, an individual having the primary responsibility for onsite operation and maintenance of the UST must successfully complete training as a Class A operator. A Class A operator is not required to be on site. A Class A operator must have a general knowledge of the UST system requirements so as to ensure compliance with operation, maintenance, and recordkeeping requirements of this chapter. A Class A operator who is responsible for more than one facility must receive training on each UST system present at each facility for which the operator is responsible. A Class A operator must successfully complete training in each of the following areas:

- (1) spill and overflow prevention;
- (2) release detection;

discretion, approves an alternate procedure determined by the department to be no less protective of human health and safety and of the environment:

(1) American Petroleum Institute Recommended Practice 1604, *Closure of Underground Petroleum Storage Tanks*, Third Edition, 1996;

(2) American Petroleum Institute Standard 2015-2001, *Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks*, Sixth Edition, August 2001, reaffirmed May 1, 2006;

(3) American Petroleum Institute Standard 1631, *Interior Lining and Periodic Inspection of Underground Storage Tanks*, Fifth Edition, June 2001; and

(4) New England Interstate Water Pollution Control Commission, *Tank Closure Without Tears: An Inspector's Safety Guide*, 1988. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

**Authority:** AS 46.03.020 AS 46.03.365 AS 46.03.395

**Editor's notes:**

1. The requirements of 18 AAC 78.085(c) might be affected by a local ordinance requiring removal as the only acceptable method of permanent closure. The owner or operator should check with the local fire department to determine if in-place closure is allowed.

2. The documents adopted by reference in 18 AAC 78.085 may be reviewed at the Department of Environmental Conservation's office in Anchorage or may be obtained from the publisher at the address listed in the editor's note at 18 AAC 78.025.

**18 AAC 78.088. Qualified environmental professionals and qualified samplers.** (a) An owner or operator shall ensure that a qualified environmental professional

(1) conducts or supervises the collection of field data and the interpretation and reporting of site characterization and site assessment data required under 18 AAC 78.090(e);

(2) conducts or supervises the collection and interpretation of field data and the reporting of release investigation data required under 18 AAC 78.235(b);

(3) prepares a corrective action plan required under 18 AAC 78.250;

(4) prepares an interim cleanup activities cost estimate, if the estimate is part of a corrective action plan prepared under 18 AAC 78.250;

(5) conducts or supervises sampling and analysis required under 18 AAC 78.271(a)(3), or that a qualified sampler performs sampling described in 18 AAC 78.271(a)(3) if the department approves the use of a qualified sampler under 18 AAC 78.271(a)(3);

(6) prepares a post-treatment sampling and analysis plan required under 18 AAC 78.273(a)(1)(C);

(7) conducts, under 18 AAC 78.275(a), soil and groundwater sampling for a release investigation or associated with a corrective action;

(8) prepares a final corrective action report required under 18 AAC 78.276(a);

(9) conducts or supervises the collection, interpretation, and reporting of data under 18 AAC 78.600;

(10) prepares and signs a report to justify a request for a waiver under 18 AAC 78.930.

(b) For purposes of this chapter, an individual is a qualified environmental professional if the individual

(1) is an impartial third party;

(2) is qualified to perform site characterization and cleanup activities, including

(A) fate and transport analysis;

(B) remediation design; and

(C) other activities associated with contaminated sites;

(3) actively practices in the field of environmental science or another related scientific field;

(4) has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work; and

(5) meets one or more of the following minimum educational qualification and experience requirements:

(A) has a four-year undergraduate or a graduate degree from a nationally or internationally accredited postsecondary institution in environmental science or another related scientific field, and has 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 subparagraph was obtained;

(B) has a four-year degree from a nationally or internationally accredited postsecondary institution in any field or a two-year associate degree from a nationally or internationally accredited postsecondary institution in environmental science or another related scientific field, and has at least three years of professional experience in contaminated site characterization and cleanup activities under the direct supervision of a

qualified environmental professional completed after a degree described in this subparagraph was obtained;

(C) is certified as an environmental technician under an apprenticeship program with a registration under 29 C.F.R. Part 29, and has at least three years of professional experience in contaminated site characterization and cleanup activities under the direct supervision of a qualified environmental professional completed after the certification described in this subparagraph was obtained.

(c) For purposes of this chapter, an individual is a qualified sampler if the individual

(1) is an impartial third party;

(2) collects samples of environmental media for laboratory analysis; in this paragraph, "environmental media"

(A) includes soil, groundwater, and surface water;

(B) does not include air or soil gas;

(3) has not been found to have falsified environmental data or committed other acts of fraud directly related to environmental work;

(4) has successfully completed

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

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

(5) has at least three months of experience in environmental sampling under the direct supervision of a qualified environmental professional completed after the training described in (4)(A) or (B) of this subsection was obtained.

(d) In this section, "another related scientific field" includes engineering, geology, physical science, hydrology, biology, and chemistry. (Eff. 6/17/2015, Register 214)

<b>Authority:</b>	AS 46.03.020	AS 46.03.405	AS 46.03.822
	AS 46.03.050	AS 46.03.710	AS 46.04.020
	AS 46.03.365	AS 46.03.740	AS 46.04.070
	AS 46.03.375	AS 46.03.745	AS 46.09.020
	AS 46.04.380		

**Article 2. Corrective Action for Leaking Underground Storage Tanks.****Section**

- 200. Investigating a suspected release
- 210. Investigation methods
- 220. Release notification and response
- 230. Initial abatement
- 235. Release investigation
- 240. Corrective action
- 250. Corrective action plan
- 260. Corrective action plan approval
- 270. Corrective action plan revisions
- 271. General corrective action requirements
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- 274. Storage, movement, and disposal of soil and groundwater
- 275. Sampling and analysis
- 276. Final corrective action report requirements and site closure
- 280. Public participation

**18 AAC 78.200. Investigating a suspected release.** (a) If a release of petroleum is suspected, the owner or operator of the UST shall investigate the UST site using methods required by 18 AAC 78.210, and shall report any of the following conditions to the department in the manner and at the times described in 18 AAC 78.220(b) - (e):

(1) the discovery by the owner, operator, or another person of released petroleum at the UST site or in the surrounding area, including the presence of free product, soil contamination, surface water or groundwater contamination, or the presence of vapors in soils, basements, sewer or utility lines, or nearby surface water or groundwater;

(2) unusual operating conditions observed by the owner, operator, or another person, including the erratic behavior of dispensing equipment, the sudden loss of petroleum from the UST, or an unexplained presence of water in the tank; if system equipment is found to be defective but not leaking, and is immediately repaired or replaced and retested, a report to the department is not required; and

(3) release detection monitoring results under 18 AAC 78.060 – 18 AAC 78.070 indicate a release might have occurred, including two consecutive months of invalid or inconclusive results; a report to the department is not required under this paragraph if

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

(B) in the case of inventory control, a second month of data does not confirm the initial result.

(b) The department will, in its discretion, require the owner or operator of a UST system to investigate for a release of petroleum as required by 18 AAC 78.210 to determine if a UST is the source of off-site impacts. For purposes of this subsection, "off-site impacts" include the discovery of free product, soil contamination, surface water or groundwater contamination, or the presence of vapors in soils, basements, sewer and utility lines, or nearby surface water or groundwater as directly observed by the department or brought to the department's attention by another person. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/30/2003, Register 165)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.210. Investigation methods.** (a) Unless corrective action is taken under 18 AAC 78.220 - 18 AAC 78.270, within seven days after learning of a suspected release of petroleum that requires reporting under 18 AAC 78.220, the owner or operator of a UST shall begin to investigate to confirm the release by conducting either a site assessment under 18 AAC 78.090 or a system test as described in this section. The department will, in its discretion, require both a site assessment and a system test.

(b) **System Test.** The owner or operator shall conduct a test as described in 18 AAC 78.065(d) and 18 AAC 78.070(c) to determine if a release has occurred in that part of a tank that routinely contains petroleum, or the attached delivery piping, or both. If the UST system fails the system test under this subsection, the release is considered confirmed, and the owner or operator shall remove, repair, or replace the UST, conduct a release investigation under 18 AAC 78.235, and begin corrective action as prescribed in 18 AAC 78.220 - 18 AAC 78.270. Replacement tanks, piping, and parts must meet the requirements for new tanks under 18 AAC 78.025. If the system test results for the UST, including the delivery piping, do not indicate that a release has occurred, but environmental contamination is the basis for suspecting a release, a site assessment must be performed as prescribed in 18 AAC 78.090. The department will, in its discretion, extend the seven-day limit set in (a) of this section if weather conditions preclude testing. The tests conducted under 18 AAC 78.065(d) and 18 AAC 78.070(c) must be performed by a person certified under this chapter. A system test performed as part of a repair must be done in accordance with 18 AAC 78.055.

(c) **Site Assessment.** If a site assessment conducted under (a) of this section indicates that a release has occurred, the owner or operator shall conduct a release investigation under 18 AAC 78.235 and begin corrective action as required by 18 AAC 78.220 - 18 AAC 78.280. No further investigation is required if

- (1) the site assessment indicates that a release has not occurred;
- (2) observations and investigations indicate that free product is not present; and
- (3) test results indicate that

(A) groundwater cleanup levels in 18 AAC 75.345 are not exceeded at the UST site;

(B) surface water quality standards in 18 AAC 70.020(b) are not exceeded at the UST site; and

(C) soil cleanup levels in 18 AAC 75.340 and 18 AAC 75.341 are not exceeded at the UST site. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365 AS 46.03.375

**18 AAC 78.220. Release notification and response.** (a) The owner or operator of a UST shall meet the requirements of this section

(1) in response to

(A) a confirmed release of petroleum from the UST; or

(B) a suspected release under 18 AAC 78.200; or

(2) when the owner or operator first has knowledge of a confirmed release of petroleum from the UST.

(b) The owner or operator shall notify the department's Anchorage, Fairbanks, Juneau, or Soldotna office of any release that is known or suspected to be 55 gallons or more, immediately upon knowledge of the release.

(c) If a leak, overfill, or other petroleum release from a UST is identified, and soil or water contamination is discovered by direct observation, through site characterization or assessment under 18 AAC 78.090, or through any other means, the owner or operator shall perform the following initial response actions within 24 hours after the owner or operator first discovers that a release has occurred:

(1) notify the department's Anchorage, Fairbanks, Juneau, or Soldotna office of

(A) a belowground release from the UST in any amount;

(B) an aboveground release to land from the UST if the release exceeds 10 gallons; or

(C) an aboveground release to water of the state if the release causes a sheen or discoloration of the water surface;

(2) take immediate action to prevent any further release of the petroleum into the environment, including removal of the petroleum from the UST if that is necessary to meet the requirements of this paragraph; and

(3) identify and mitigate any fire, explosion, or vapor hazard.

(d) The owner or operator shall report to the department's Anchorage, Fairbanks, Juneau, or Soldotna office

(1) a release of less than 10 gallons to land, or a release of less than one-half pint to water, within seven days after discovering the release;

(2) any observation or unusual operating conditions described in 18 AAC 78.200(a)(2) within seven days after the observation occurs; and

(3) any release detection monitoring results that indicate a release might have occurred as described in 18 AAC 78.200(a)(3) within seven days after receiving the results.

(e) After complying with the requirements of this section, the owner or operator, unless directed to do otherwise by the department, shall conduct initial abatement, release investigation, and corrective action as required by 18 AAC 78.230 - 18 AAC 78.270. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365 AS 46.03.755

**18 AAC 78.230. Initial abatement.** Unless directed in writing by the department to do otherwise, after meeting the requirements of 18 AAC 78.220, the owner or operator of a UST with a confirmed release of petroleum shall perform the following abatement and containment measures:

(1) cease using the system and, if not already performed under 18 AAC 78.220(c)(2), within seven days remove the petroleum from the UST to prevent further release of petroleum to the environment; the UST may not be refilled until the system is repaired, replaced, or upgraded so that a further release cannot occur;

(2) visually inspect any aboveground release or exposed belowground release and prevent further migration of petroleum into surrounding soils and groundwater;

(3) continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures, including basements, sewers, and utility lines; and

(4) properly stockpile excavated contaminated soils to prevent water run-on and run-off in accordance with 18 AAC 78.274 and remedy a hazard posed by contaminated soils that are excavated or exposed in response to a release confirmation, site characterization, site assessment, abatement, or corrective action; if these remedies include treatment, stockpiling, or disposal of contaminated soils, the owner or operator shall use a method that the department determines will adequately protect human health and safety, and the environment. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.235. Release investigation.** (a) After meeting the requirements of 18 AAC 78.220 and 18 AAC 78.230, the owner or operator of a UST with a confirmed release of petroleum shall perform a release investigation to characterize the release and actual or potential threat to human health and safety, and to the environment. If applicable to the site, an investigation under this section must include the following:

(1) soil samples, sufficient in number and location to represent the conditions of the soil, must be taken to adequately characterize the horizontal and vertical distribution of the release in the soil and to identify soil properties that are likely to influence the type and rate of migration of the released petroleum;

(2) sample collection and other investigations of the site geology and hydrogeology must be conducted to adequately characterize the horizontal and vertical distribution of the release in groundwater and those features that affect the fate and transport of the petroleum; if groundwater contamination is confirmed, the owner or operator shall notify the department within 24 hours and identify public and private drinking water wells that are located within one-quarter mile of the release site;

(3) sample collection and other investigations of surface waters must be conducted to adequately characterize significant hydrologic features such as surface drainage patterns and quantities, surface waters, floodplains, and actual or potential contaminant migration routes toward or within these features; and

(4) a hazard ranking evaluation must be conducted to measure the potential risk to human health and safety and to the environment; data collected must include information on toxicity and quantity of the contaminants, release information, site access, air exposure, surrounding populations, water use and exposure, surrounding environmental and recreation areas, and observed environmental impacts; the hazard ranking evaluation must be submitted on a form provided by the department;

(5) a sampling and analysis plan must be submitted to and approved by the department, if the owner or operator plans to use a statistical method referenced in 18 AAC 78.276(e) for site closure and final compliance with the soil cleanup levels under 18 AAC 78.600 - 18 AAC 78.610.

(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 in accordance with the *UST Procedures Manual*.

(c) Repealed 6/17/2015.

(d) Laboratory analyses submitted to fulfill the requirements of this section must be performed by a laboratory approved by the department under 18 AAC 78.800 - 18 AAC 78.810.

(e) After completing a release investigation required under this section, the owner or operator shall undertake corrective action as prescribed in 18 AAC 78.240 - 18 AAC 78.276

unless directed by the department to do otherwise as necessary to ensure protection of human health or safety, or of the environment.

(f) In a release investigation, the owner or operator shall use the analytical methods set out in Table 1, Chapter 2 of the *UST Procedures Manual*.

(g) Within 45 days after the date of release confirmation, as established under (h) of this section, the owner or operator shall submit a release investigation report to the department, summarizing the initial abatement measures conducted under 18 AAC 78.230 and including

- (1) the owner's name and address;
- (2) the operator's name and address, if different from the owner;
- (3) the location of the UST, including the legal description by

(A) subdivision lot, block, or tract information; or by section lot, tax lot, or government lot number; or

(B) meridian, township, range, section, and nearest quarter section locations within the section if the location cannot be described under (A) of this paragraph;

- (4) the UST registration number assigned by the department;
- (5) the name and business address of each person who supervised the release investigation;
- (6) all sample analyses and test results received, reported as required in the *UST Procedures Manual*, Section 8.4;
- (7) data on the nature and estimated amount of the release;
- (8) data summarizing the hazard ranking evaluation conducted under (a)(4) of this section, on a form provided the department;
- (9) information gained through soil, groundwater, geology, and surface water investigations conducted under this section;
- (10) a narrative description of activities conducted at the site and the dates the activities occurred;
- (11) a site sketch that approximately shows
  - (A) the location and configuration of tanks and piping;
  - (B) the sample locations, including depth below grade;

- (C) the proximity to property, buildings, and residences;
- (D) any sites where a release has occurred;
- (E) any sites where free product has been or is located;
- (F) the facility and property boundaries;
- (G) a bar scale and north arrow; and
- (H) any other pertinent information;

(12) a UST site history, including previous releases, repairs, spills, or corrective action activities; and

(13) an evaluation of the existence of petroleum vapors within any nearby occupied structure.

(h) The date of release confirmation is established by the earlier of the following events:

(1) the receipt, by the owner or operator, of a report under 18 AAC 78.090 or 18 AAC 78.210, if the report indicates petroleum contamination; or

(2) the owner's or operator's first observation, or first knowledge of an observation, of petroleum contamination. (Eff. 11/3/95, Register 136; am 1/22/99, Register 149; am 1/30/2003, Register 165; am 6/17/2015, Register 214)

**Authority:** AS 46.03.020 AS 46.03.365

**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.

**18 AAC 78.240. Corrective action.** (a) If the release of petroleum from a UST is confirmed and corrective action is required under 18 AAC 78.235(e), the owner or operator of the UST shall undertake soil and water corrective actions as prescribed in 18 AAC 78.240 - 18 AAC 78.276 and 18 AAC 78.600 - 18 AAC 78.625. The department will direct the owner or operator to perform corrective action to mitigate an inhalation hazard, if the department determines that corrective action is necessary to protect human health or safety, or the environment. As part of that corrective action and as necessary, the owner or operator shall operate a vapor monitoring system in one or more occupied structures near the site.

(b) At a site where an investigation indicates the presence of free product, the owner or operator shall remove measurable free product to the maximum extent practicable, while continuing, as necessary, an action taken under 18 AAC 78.210 - 18 AAC 78.235 or preparing for an action required by 18 AAC 78.240 - 18 AAC 78.280. To meet the requirements of this subsection, the owner or operator shall

- (1) notify the department within 24 hours after the discovery of free product;
  - (2) conduct free product removal in a manner that
    - (A) minimizes the spread of contamination into an uncontaminated area by using containment, recovery, and disposal techniques appropriate to site conditions;
    - (B) avoids additional discharges;
    - (C) disposes of the recovered free product in compliance with applicable local, state, and federal requirements; and
    - (D) minimizes, to the maximum extent practicable, the time necessary for corrective action;
  - (3) ensure that each free product removal system is designed to minimize free product migration; and
  - (4) ensure that a flammable substance is handled in a manner that avoids fires or explosions.
- (c) Within 60 days after the date of release confirmation, as established under 18 AAC 78.235(h), the owner or operator shall submit to the department
- (1) an interim corrective action report informing the department of the status of corrective actions required by (a) of this section; and
  - (2) a free product removal report that shows free product was removed in compliance with (b) of this section and that provides at least the following information:
    - (A) the name and address of the person supervising or responsible for implementing the free product removal;
    - (B) the estimated amount, type, and thickness of free product observed or measured in wells, boreholes, and excavations;
    - (C) the type of free product recovery system used;
    - (D) whether any discharge has occurred or will occur on or off site during the recovery operation and where this discharge occurred or will occur;
    - (E) the type of treatment applied to, and the effluent quality resulting or expected from, any substance that has been or will be discharged;
    - (F) the steps that have been or are being taken to obtain necessary permits for any discharge; and

(G) the disposition of the recovered free product, dissolved phase product, or contaminated soil.

(d) The department will, in its discretion, extend the deadline for a report required under (c) of this section. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.250. Corrective action plan.** (a) At any time after reviewing the information submitted under 18 AAC 78.210 - 18 AAC 78.240, if the department determines that a threat to human health or safety, or to the environment exists, the department will require the owner or operator to

(1) submit additional information; or

(2) develop and submit a corrective action plan to respond to contaminated soil, surface water, and groundwater.

(b) If a corrective action plan is required under (a) of this section, the owner or operator shall submit the plan for approval according to a schedule and format established by the department. To obtain approval, the plan must

(1) provide for adequate protection of human health and safety, and of the environment, as determined by the department;

(2) include the elements listed in (e) of this section; and

(3) be prepared by a qualified environmental professional.

(c) The owner or operator may, after fulfilling the requirements of 18 AAC 78.210 - 18 AAC 78.240, voluntarily submit a corrective action plan to respond to contaminated soil and groundwater. That corrective action plan must meet the requirements of (b)(1) and (b)(3) of this section. The owner or operator shall modify the plan as necessary to demonstrate that the plan meets the requirements of (b)(1) of this section.

(d) To minimize environmental contamination and perform more effective corrective actions, the owner or operator may begin corrective actions to respond to contaminated soil and groundwater, before the department approves a corrective action plan, if the owner or operator

(1) notifies the department of the intent to begin corrective actions;

(2) complies with any conditions imposed by the department, including halting corrective action or mitigating adverse consequences from corrective action activities; and

(3) incorporates any self-initiated corrective action measures in the corrective action plan, or as amendments to the plan.

- (e) The corrective action plan must include the following elements:
- (1) a schedule for conducting field work, monitoring, corrective action activities, and submittal of interim and final corrective action reports;
  - (2) sampling and analysis plan, including
    - (A) final verification sampling protocol; and
    - (B) provisions for handling, transporting, and disposing of investigation-derived wastes including
      - (i) purged water from a boring or monitoring well;
      - (ii) cuttings, mud, and other wastes from well or boring installation and development; and
      - (iii) contaminated equipment and materials;
  - (3) detailed specification for each proposed corrective action technique, and copies of all previous communications with the department regarding the proposed technique;
  - (4) provisions for minimizing contaminant migration to previously unaffected areas, except under an approved corrective action technique under this section;
  - (5) provisions for transporting contaminated soil as a covered load in accordance with 18 AAC 60.015;
  - (6) provisions for the disposal of contaminated soil and groundwater, including the location and method of disposal;
  - (7) a list of chemical additives proposed for use, and their potential effects on
    - (A) the hazardous substances at the site; and
    - (B) human health and safety, and the environment;
  - (8) a site control plan, if necessary to protect human health or safety or the environment, including engineering measures, such as the installation of caps or liners, and provisions for restricting access, such as the use of fences, signs, or other barriers;
  - (9) a demonstration that site work and the corrective action will comply with the air quality standards and requirements of 18 AAC 50;
  - (10) a plan for ensuring that contaminated soil does not come in contact with uncontaminated soil during the corrective action process, except under an approved corrective action technique under this section or an approved operations plan under 18 AAC 78.273;

(11) a nondomestic wastewater system plan under 18 AAC 72.600, if the corrective action requires construction, alteration, installation, modification, or operation of a nondomestic wastewater treatment works or disposal system;

(12) for ex-situ corrective action techniques,

(A) provisions for containment and handling of leachate, if leachate is produced;

(B) a demonstration that site work and the corrective action will comply with soil storage, movement, and disposal requirements in 18 AAC 78.274;

(C) if using a hot asphalt batch plant, written certification by a registered engineer that processes incorporating contaminated soils meet current industry standards for asphalt paving;

(D) if combining contaminated soil with asphalt for the purposes of cold asphalt recycling, a cold asphalt recycling plan that includes

(i) a pavement structure design study for incorporating the excavated material; the study must be certified by a registered engineer;

(ii) approval for use of the specific leaching assessment or model used to determine contaminant migration; and

(iii) results of the pre-approved contaminant leaching assessment or model, referenced under (ii) of this subparagraph; those results must demonstrate that contaminant concentrations in the soil will not migrate;

(E) if using bioremediation, a bioremediation plan that includes detailed descriptions of

(i) cultured microbes, unless using an indigenous microbe population;

(ii) electron acceptors and nutrient sources for microbes;

(iii) the expected rate of biodegradation;

(iv) intermediate and final breakdown products;

(v) the type and amount of contamination to be bioremediated;

(vi) any potential adverse effects on human health or safety, or on the environment; and

(vii) other information requested by the department; the department will request additional information if the department determines that the information is necessary to ensure protection of human health or safety, or of the environment;

(F) if using solidification, a solidification plan that includes

(i) a demonstration that contaminant concentrations in the contaminated media do not exceed 5,000 mg/kg for the total range of petroleum hydrocarbons described in the *UST Procedure Manual* and do not exceed 100 mg/kg of BTEX;

(ii) a demonstration that contaminant concentrations in the solidified material will not migrate;

(iii) results of structural testing on the solidified material to demonstrate that the solidified material has an unconfined compressive strength of 2,000 psi or more after 28 days;

(iv) results of leachability testing of the solidified material; and

(v) specifications for the ratio of the mass of contaminated media to the mass of reagent;

(G) if using soil contaminated with petroleum hydrocarbons as a base for a physical barrier, a physical barrier base plan that includes

(i) a demonstration that contaminant concentrations in contaminated soil used for the base do not exceed 5,000 mg/kg for the total range of petroleum hydrocarbons described in the *UST Procedures Manual*, or that do not exceed 100 mg/kg of BTEX;

(ii) a demonstration that the contaminated soil that is used for the base will be blended with uncontaminated soil only if necessary to meet design specifications;

(iii) a physical barrier design study, certified by a registered engineer;

(iv) approval for use of the specific leaching assessment or model used to determine contaminant migration;

(v) results of the pre-approved contaminant leaching assessment or model, as specified under (iv) of this subparagraph; those results must demonstrate that contaminant concentrations in the soil will not migrate;

(vi) a demonstration that the base under the physical barrier will use no more than 18 vertical inches of material containing contaminated soil;

(vii) a demonstration that the contaminated zone will be compacted to 95 percent or more of the maximum density as specified in American Society for Testing and Materials (ASTM) D 1557 - 91, *Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort*, updated January 1997 and adopted by reference, or ASTM D 4253 - 93, *Standard Test Methods for Maximum Index Density and Unit Weight of Solids Using Vibratory Table*, updated February 1993 and adopted by reference;

(viii) a demonstration that the material containing contaminated soil will be placed in a zone directly beneath the final base course with at least 18 inches of impervious pavement extending beyond the horizontal limit of the material containing contaminated soil;

(ix) a demonstration that at least six feet will separate the seasonal high groundwater point from the lowest point of the material containing contaminated soil; and

(x) as-built drawings, certified by a registered engineer, that show the final location of the material containing contaminated soil;

(H) if using soil contaminated with metals for a base as a physical barrier, and if that use is approved on a site-specific basis, the elements required by (G) of this paragraph; and

(I) if using an offsite or portable treatment facility, a demonstration that only an offsite or portable treatment facility with an operations plan approved under 18 AAC 78.273 will be used;

(13) for in-situ corrective techniques;

(A) a site monitoring plan showing proposed locations of monitoring wells;

(B) a hydrogeologic description of the site, including

(i) soil and sediments present;

(ii) stratigraphy;

(iii) aquifer characteristics, including groundwater gradient, confining layers, perched water, permeability, and aquifer transmissivity;

(iv) percolation rates from precipitation; and

(v) other relevant factors;

(C) results of hydrogeologic modeling performed to address capture zones, effects of hydraulic loading, and plume migration; and

(D) if using bioremediation, a demonstration of compliance with (12)(E) of this subsection.

(f) The owner or operator shall submit and obtain approval for each of the applicable elements specified in (e) of this section before work on that element begins, and for additional approval if a modification to an element is anticipated. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/17/2015, Register 214)

<b>Authority:</b>	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	

**Editor's note:** The ASTM International 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 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](http://www.astm.org).

**18 AAC 78.260. Corrective action plan approval.** (a) The department will approve or deny a corrective action plan after receipt of all information required or requested under 18 AAC 78.250 and any comments on the plan under 18 AAC 78.280(c), and only after determining whether implementation of the plan will adequately protect human health, safety, and the environment.

(b) In making a determination under (a) of this section, the department will consider

(1) the physical and chemical characteristics of the petroleum, including its toxicity, persistence, and potential for migration;

(2) the hydrogeologic characteristics of the facility and surrounding area;

(3) the proximity, quality, and current and future uses of nearby surface water and groundwater;

(4) the potential effects of residual contamination on nearby surface water and groundwater;

(5) an exposure evaluation;

(6) the overall cost effectiveness of the corrective action measures proposed;

(7) any information gathered and submitted in compliance with 18 AAC 78.200 - 18 AAC 78.250; and

(8) the qualifications of each person involved with the corrective action planning and activities.

(c) The department will, in its discretion, and upon a documented finding of public endangerment, require that the corrective action plan provide for

(1) adequate alternative drinking water systems, that meet the requirements of 18 AAC 80, for affected consumers; and

(2) the temporary relocation of persons affected by a contaminated water supply.

(d) At any time after reviewing the information submitted under 18 AAC 78.250, the department will, in its discretion, require the owner or operator to submit additional information by a schedule and in a format established by the department.

(e) Upon approval of a corrective action plan, or as directed by the department, the owner or operator shall implement the plan, including modifications to the plan made by the department. The owner or operator shall monitor, evaluate, and report the results of implementing the plan in a final corrective action report as specified by 18 AAC 78.276. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.270. Corrective action plan revisions.** (a) The owner or operator of the UST must have written department approval before taking an action that constitutes a substantive revision to or deviation from an approved corrective action plan.

(b) The department will require the owner or operator to take corrective action to bring any change or revision into compliance with this chapter, if the department determines that corrective action is necessary to ensure protection of human health and safety, and of the environment. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.271. General corrective action requirements.** (a) The owner or operator of a facility at which a release of petroleum from a UST has occurred and for which corrective action is required under 18 AAC 78.240 shall

(1) comply with 18 AAC 78.240 - 18 AAC 78.276;

(2) ensure that the collection, interpretation, and reporting of data are in accordance with the *UST Procedures Manual*; and

(3) ensure that required sampling and analysis is conducted or supervised by a qualified environmental professional; however, a qualified sampler may conduct sampling of soil stockpiles, bioremediation systems, surface water, or groundwater monitoring wells when a qualified environmental professional is not available.

(b) The owner and operator of an offsite or portable treatment facility shall ensure that a qualified environmental professional conducts or supervises soil sampling to verify that cleanup levels are met. Soil sampling and analysis must be conducted as required by the *UST Procedures Manual*.

(c) Laboratory analyses that are submitted to comply with this section must be performed by a laboratory approved or provisionally approved under 18 AAC 78.800 - 18 AAC 78.815 for each parameter analyzed and analytical method used. The owner or operator shall ensure that reports submitted to the department include the current state laboratory UST identification number for the laboratory that performed the analysis.

(d) Petroleum-contaminated soil that originates from a UST site and that is stockpiled must comply with 18 AAC 78.274.

(e) The owner and operator shall ensure that the person conducting corrective action under this chapter complies with the corrective action requirements in 18 AAC 78.240 - 18 AAC 78.276. (Eff. 1/22/99, Register 149; am 6/17/2015, Register 214)

**Authority:** AS 46.03.020 AS 46.03.365 AS 46.03.375

**18 AAC 78.273. Offsite or portable soil treatment facilities.** (a) An owner or operator of an offsite or portable soil treatment facility shall

(1) obtain approval of an operations plan before that person accepts or treats contaminated soil; the department will approve the plan if the department determines that the operations proposed are protective of human health and safety, and of the environment; a plan submitted under this paragraph must include

(A) a facility diagram that shows the location of

(i) each soil treatment, storage, and transportation area;

(ii) major roads within or bordering the site or facility; and

(iii) monitoring wells, surface water, water supply wells, facility boundaries, and public or private buildings within 500 feet of the facility boundary;

(B) a detailed process description including a discussion of

(i) air, water, and solid waste process streams;

(ii) startup and shutdown procedures;

(iii) maximum process flow rate;

(iv) air pollution control equipment;

(v) water treatment systems;

(vi) the projected maximum time necessary for the treatment method to fully remediate contaminated soil; and

(vii) a detailed description of any additive to be used;

(C) a post-treatment sampling and analysis plan prepared by a qualified environmental professional to verify that the applicable cleanup levels have been met;

(D) provisions for complete containment of the contaminated soil before, during, and after treatment until the contaminated soil meets the applicable cleanup levels; alternatively, if the treatment process, such as landfarming or landspreading, will not contain the contaminated soil, the owner or operator of the offsite or portable treatment facility must demonstrate that there will be no uncontrolled leachate from the treatment area;

(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, engineering plans and engineering record drawings for contaminated soil and water containment structures; the *Operation Requirements for Soil Treatment Facilities*, dated March 15, 2013, is adopted by reference; and

(F) site monitoring procedures that will measure for secondary contamination at the treatment facility;

(2) if the facility is a Category C or a Category D facility, as described in the *Operation Requirements for Soil Treatment Facilities*, adopted by reference in (1) of this subsection, submit the following to the department before the owner or operator accepts or treats contaminated soil:

(A) proof of a performance bond or other approved means of fiscal responsibility that will provide the department with a source of funds to clean up contaminated soils that have been received for treatment if the facility operator fails to treat the contaminated soils in accordance with this chapter; a performance bond must be executed by an insurance company licensed in the state and include a bond amount that will cover cleanup of the contaminated soils at the treatment facility; the bond shall be based on

(i) the quantity of contaminated soil allowed at the facility specified in the facility's approved operation plan; and

(ii) the cost per ton for treating contaminated soil at that facility location; and

(B) proof of pollution liability insurance that will provide the department with a source of funds to clean up secondary contamination at the facility property that is caused by the soil treatment facility during soil treatment operations;

(3) perform confirmation sampling of treated soil in accordance with a sampling and analysis plan approved under this subsection to verify that applicable cleanup levels have been met;

(4) submit to the department an assessment of background contamination at the facility before initial startup of the treatment facility; and

(5) submit to the department within 90 days after terminating operation of the treatment facility, a closure assessment demonstrating that secondary contamination did not occur at the facility; if secondary contamination did occur at the facility, the owner or operator of the portable treatment facility shall perform a cleanup of the contamination by in-situ or ex-situ treatment within two years after terminating operation.

(b) If the owner or operator of an offsite or portable treatment facility fails to process soils to the department's satisfaction in accordance with the plan approved under (a)(1) of this section, the department will withdraw its approval under (a)(1) of this section, and that person may not process or receive contaminated soil.

(c) For purposes of this section,

(1) "background contamination" means the concentration of a hazardous substance that is consistently present in the environment or in the vicinity of a site and that is naturally present or is the result of human activities unrelated to a discharge or release at the site;

(2) "engineering plans" means a set of plans approved and sealed by a registered engineer;

(3) "engineering record drawings" means the approved original plans prepared for construction and department approval under (a)(1) of this section, revised to reflect how the containment structure or system was constructed or installed, and sealed by a registered engineer;

(4) "facility" has the meaning given in AS 46.03.900; "facility" includes the land, structures, and equipment associated with treatment of contaminated soil;

(5) "offsite or portable treatment facility" has the meaning given in the *Soil Treatment Facility Guidance*, adopted by reference in (a)(1) of this section;

(6) “owner or operator” has the meaning given to “owner” and “operator” in AS 46.03.826;

(7) “performance bond” means a written agreement between the owner or operator and the department guaranteeing performance of the obligations covered by the agreement;

(8) “registered engineer” means a professional engineer registered to practice in the state under AS 08.48. (Eff. 1/22/99, Register 149; am 1/30/2003, Register 165; am 6/17/2015, Register 214)

<b>Authority:</b>	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	

**Editor’s note:** The department’s *Operation Requirements for Soil Treatment Facilities*, adopted by reference in 18 AAC 78.273(a)(1), may be viewed at or obtained 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>.

**18 AAC 78.274. Storage, movement, and disposal of soil and groundwater.** (a) Unless the department approves the activity in question as protective of human health and safety, and of the environment, the owner or operator may not blend contaminated soil with uncontaminated soil, and shall

(1) segregate contaminated soil based on

(A) the intended corrective action techniques; and

(B) the specific contaminants present;

(2) store contaminated soil

(A) 100 feet or more from surface water, a private water system as defined in 18 AAC 80.1990, a Class C public water system as defined in 18 AAC 80.1990, or a fresh water supply system that uses groundwater for a use designated in 18 AAC 70.020(a)(1)(A) and 18 AAC 70.050(a)(2); and

(B) 200 feet or more from a water source serving a Class A or Class B public water system, as defined in 18 AAC 80.1990;

(3) 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**

<b>Method</b>	<b>Coated Fabric</b>	<b>Extruded Fabric</b>
<b>Short-term storage of petroleum-contaminated soil (less than 180 days)</b>		
Cold crack (ASTM D 2136-02(2012), updated 2012)	-60° Fahrenheit	-60° Fahrenheit
Black carbon content (ASTM D 1603-14, updated 2014)	two percent or greater	two percent or greater
Tensile strength (ASTM D 751-06(2011), updated 2011)	125 pounds (warp)	N/A
Mullen burst (ASTM D 751-06(2011), updated 2011)	250 pounds per square inch (psi)	N/A
One inch tensile strength (ASTM D 882-12, updated August 2012)	N/A	25 pounds (warp)
One inch elongation MD (machine direction)	N/A	550 percent
Nominal thickness	10 mil	10 mil
Oil resistance (ASTM D 471-12a, updated December 2012)	No signs of deterioration and more than 80 percent retention of tensile and seam strength after immersion for 30 days at 73° Fahrenheit	No signs of deterioration and more than 80 percent retention of tensile and seam strength after immersion for 30 days at 73° Fahrenheit
<b>Long-term storage of petroleum-contaminated soil (180 days to two years)</b>		
Cold crack (ASTM D 2136-02(2012), updated 2012)	-60° Fahrenheit	-60° Fahrenheit
Black carbon content (ASTM D 1603-12, updated May 2012)	two percent or greater	two percent or greater
Tensile strength (ASTM D 751-06(2011), updated 2011)	300 pounds (warp)	N/A
Mullen burst (ASTM D 751-06(2011), updated May 2011)	500 pounds per square inch (psi)	N/A
One inch tensile strength (ASTM D 882-12, updated August 2012)	N/A	45 pounds (warp)
One inch elongation MD (machine direction)	N/A	625 percent
Nominal thickness	20 mil	20 mil
Oil resistance (ASTM D 471-12a, updated December 2012)	No signs of deterioration and more than 80 percent retention of tensile and seam strength after immersion for 30 days at 73° Fahrenheit	No signs of deterioration and more than 80 percent retention of tensile and seam strength after immersion for 30 days at 73° Fahrenheit
The ASTM International methods referred to in this table are adopted by reference. "N/A" means not applicable.		

(4) cover and protect the contaminated soil stockpile from weather with no less than a six-mil, reinforced polyethylene liner or its equivalent, with the edge of the cover lapped over the bottom liner to prevent water running through the soil; and

(5) inspect and maintain the contaminated soil stockpile regularly to ensure that the cover remains intact and that the soil and any liquid leachate derived from the soil is contained.

(b) An owner or operator shall obtain approval before moving or disposing of contaminated soil or groundwater subject to the requirements under this chapter. (Eff. 1/22/99, Register 149; am 6/25/99, Register 150; am 4/16/2000, Register 154; am 6/17/2015, Register 214)

<b>Authority:</b>	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

**Editor's note:** The ASTM International methods adopted by reference in Table B of 18 AAC 78.274(a) may be reviewed at the department's Anchorage, Fairbanks, Juneau, and Soldotna offices, or may be obtained from ASTM International, Publications Department, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959; telephone (610) 832-9285; fax (610) 832-9555, or at [www.astm.org](http://www.astm.org).

**18 AAC 78.275. Sampling and analysis.** (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 in accordance with 18 AAC 78.605 and the *UST Procedures Manual*.

(b) The owner or operator of an offsite or portable treatment facility under 18 AAC 78.273 shall ensure that the collection, interpretation, and reporting of data, and the required sampling and analysis are conducted or supervised by a qualified environmental professional in accordance with the *UST Procedures Manual*.

(c) If a contaminant is suspected at the site because of empirical evidence or prior analysis, but is not detected or is detected at a concentration below the practical quantitation limit, and the practical quantitation limit is higher than the cleanup level for that substance, the department will

(1) determine the owner or operator to have attained the cleanup level, if additionally the more stringent of the following conditions is met:

(A) the practical quantitation limit is no greater than 10 times the method detection limit; or

(B) the practical quantitation limit is no greater than the practical quantitation limit referred to in Table 1 of the *UST Procedures Manual*; or

(2) as the department determines necessary to ensure protection of human health or safety or of the environment, require the use of a specialized analytical method to improve the accuracy, precision, method detection limit, or practical quantitation limit for the contaminant.

(d) Among the analytical methods set out in Table 1 of the *UST Procedures Manual*, 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*.

(e) Laboratory analysis submitted to comply with this chapter must be performed by a laboratory approved under 18 AAC 78.800 - 18 AAC 78.815 for each analyzed parameter and analytical method used.

(f) The owner or operator shall submit the results of the laboratory analyses for samples collected under this chapter and shall include the current state laboratory UST identification number for the laboratory that performed the analyses. (Eff. 1/22/99, Register 149; 6/25/99, Register 150; am 4/16/2000, Register 154; am 6/17/2015, Register 214)

<b>Authority:</b>	AS 46.03.020	AS 46.03.745	AS 46.04.070
	AS 46.03.740	AS 46.04.020	AS 46.09.020

**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.

**18 AAC 78.276. Final corrective action reporting requirements and site closure.** (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.

- (b) The written report required by (a) of this section must contain, as applicable,
- (1) the date and time of the discharge or release;
  - (2) the location of the discharge or release, including latitude and longitude coordinates;
  - (3) the name and physical address of the site, facility, or operation;
  - (4) the name, mailing address, and telephone number of the owner and of the operator of the site, facility, or operation;
  - (5) the type and amount of each contaminant discharged or released;

(6) a description of any environmental damage caused by the discharge, release, or containment to the extent the damage can be identified;

(7) a demonstration that the free product removal report required in 18 AAC 78.240(c) was submitted to the department and that free product was recovered in compliance with 18 AAC 78.240;

(8) a summary of each applicable soil and groundwater cleanup level approved for the site under 18 AAC 78 600 - 18 AAC 78.625 and a description of the factors used in developing each applicable cleanup level;

(9) a description of the corrective actions taken, including

(A) a demonstration that corrective action was conducted in accordance with the corrective action plan project elements, including modifications to the project elements, approved under 18 AAC 78.250;

(B) sampling reports and a description of the soil and groundwater sampling protocol and sampling locations;

(C) a summary of the laboratory reports for the final verification samples collected at the site; the laboratory or the owner or operator shall keep these reports and make them available to the department upon request for at least 10 years after submission of the summary to the department;

(D) a demonstration that contaminated soil and groundwater were stored, treated, and disposed of in an approved manner;

(E) a description of any site-specific modification to any procedures in the *UST Procedures Manual*;

(F) an estimate of the extent of any remaining residual contamination, above and below the applicable cleanup levels;

(G) confirmation that any hazardous waste generated was stored, treated, or disposed of in compliance with 42 U.S.C. 6901 - 6992k (Solid Waste Disposal Act, as amended by Resource Conservation Recovery Act), as amended through October 1, 1998 and adopted by reference; and

(H) other information requested by the department, as the department determines necessary to ensure protection of human health or safety, or of the environment; and

(10) a demonstration of compliance with applicable institutional control requirements under 18 AAC 78.625.

(c) repealed 6/25/99.

(d) The owner or operator shall keep a copy of the corrective action report submitted under this section for at least 10 years after that report is submitted to the department.

(e) The department will determine final compliance with the

(1) applicable soil cleanup levels, based on sampling results from onsite contaminated soil and from contaminated soil moved offsite for treatment or disposal, and based on the maximum concentrations detected, unless an appropriate statistical method is approved, in which case compliance will be based on the mean soil concentration at the 95 percent upper confidence limit; approval of a statistical method will be based on

(A) the number and location of samples taken;

(B) whether large variations in contaminant concentrations relative to the mean concentration exist; and

(C) whether a large percentage of concentrations are below the method detection limit; and

(2) groundwater cleanup levels, based on an analysis of unfiltered groundwater samples unless the owner and operator demonstrates that a filtered sample provides a more representative measure of groundwater quality; compliance will be determined based on the maximum concentrations of a contaminant detected in the final confirmation samples; before closure, the size of the dissolved plume must be steady state or shrinking and concentrations of the contaminant must be decreasing.

(f) After reviewing the final corrective action report submitted under this section, if the department determines that

(1) a site has been adequately characterized and has achieved the applicable cleanup levels and requirements in 18 AAC 78.600 - 18 AAC 78.625, the department will issue the owner or operator a written determination that corrective action is complete, subject to a future department determination that the corrective action is not protective of human health or safety, or of the environment; or

(2) the corrective action and applicable institutional controls are not protective of human health or safety, or of the environment, the department will, as necessary to ensure protection of human health or safety, or of the environment, require the owner or operator to conduct additional actions that meet the requirements of this chapter. (Eff. 1/22/99, Register 149; am 6/25/99, Register 150; am 6/17/2015, Register 214)

<b>Authority:</b>	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 78.280. Public participation.** (a) If a confirmed release of petroleum requires a corrective action plan under 18 AAC 78.250(a)(2), the department will notify members of the public who are directly affected by the release and the planned corrective action, using methods the department finds appropriate, including public notice in a local newspaper, block advertisement, public service announcement, publication in a state register, letters to individual households, personal contacts by field staff, posting of notice in the location scheduled for corrective action, or a combination of any of these methods.

(b) The department will make site release information and decisions concerning the corrective action plan available for public inspection upon request.

(c) Before approving a corrective action plan, the department will, in its discretion, hold a public meeting to consider comments on the proposed plan if there is sufficient public interest, or for any other reason.

(d) The department will give public notice under (a) of this section if implementation of an approved plan does not achieve the applicable cleanup levels in the plan and termination of that plan is being considered by the department. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.365

## Article 6. Cleanup Levels

### Section

- 600. Cleanup levels: general requirements
- 605. Soil sample number and location
- 610. Soil cleanup levels
- 615. Groundwater and surface water sample number and location
- 620. Groundwater and surface water cleanup levels
- 625. Institutional controls

**18 AAC 78.600. Cleanup levels: general requirements.** (a) Soil samples from an excavation or stockpile created as part of a corrective action must be collected as required by 18 AAC 78.605, analyzed in accordance with Chapter 2 of the *UST Procedures Manual*, and reported as required by 18 AAC 78.276. If laboratory results indicate that the concentrations of a contaminant are below the applicable soil cleanup levels determined under 18 AAC 75.340 and 18 AAC 75.341, the department will determine soil corrective actions to be adequate, unless subsequent evidence shows that the testing was not representative or that sampling did not detect all contamination.

(b) The identity of a released refined petroleum product must be assumed to be unknown unless the owner or operator demonstrates, by analysis done as required by the *UST Procedures Manual*, that the product is only gasoline, or only a refined nongasoline product. The department will waive the requirement that a product be identified by analysis if the owner or operator demonstrates that only one type of product was stored or distributed during the facility's operational life.

(c) Soils additionally contaminated with a hazardous substance other than a petroleum product are subject to 18 AAC 75 and as applicable, 18 AAC 60, 18 AAC 62, 18 AAC 70, 18 AAC 72, or another chapter of this title.

(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 across all exposure pathways. Guidance on cumulative risk determinations is provided in the department's *Cumulative Risk Guidance*, dated June 9, 2008. The department's *Cumulative Risk Guidance*, dated June 9, 2008, is adopted by reference.

(e) If proposing an alternative cleanup level for soil or groundwater, based on a site-specific risk assessment under method four in 18 AAC 75.340(f) or under the provisions of 18 AAC 75.345(b)(3), the owner or operator shall ensure that 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 1.0 for each exposure pathway. Guidance on cumulative risk determinations is provided in the department's

*Cumulative Risk Guidance*, adopted by reference in (d) of this section. Instead of the risk standard required by this subsection, the department may consider a risk standard consistent with the range acceptable under 40 C.F.R. 300.430, revised as of July 1, 2002, adopted by reference, based on

- (1) site-specific conditions;
- (2) land use;
- (3) contaminant characteristics;
- (4) statutory compliance;
- (5) protection of human health and safety, and of the environment;
- (6) ability of corrective action to be implemented;
- (7) long-term and short-term effectiveness;
- (8) use of treatment technologies;
- (9) public comment; and
- (10) cost.

(f) An owner or operator requesting approval of a cleanup level for soil or groundwater based on a site-specific risk assessment under 18 AAC 75.340(f) or 18 AAC 75.345(b)(3) shall reimburse the department for its expenses to hire a contractor to review a risk assessment report.

(g) An owner or operator shall provide for long-term care and management of a site subject to corrective action under this chapter, including proper operation and maintenance of

- (1) corrective action techniques and equipment;
- (2) monitoring wells and equipment, if required; and
- (3) institutional controls if required under 18 AAC 78.625.

(h) An owner or operator shall obtain approval before disposing of soil or groundwater from a site

- (1) that is subject to this chapter; or
- (2) for which the owner or operator has received a written determination from the department under 18 AAC 78.276(f).

(i) The collection, interpretation, and reporting of data under this section must be conducted or supervised by a qualified environmental professional. (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am 1/30/2003, Register 165; am 6/17/2015, Register 214)

**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

**Editor's note:** The department's *Cumulative Risk Guidance*, adopted by reference in 18 AAC 78.600(d), may be viewed at or obtained 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>.

As of Register 188 (January 2009), the regulations attorney made technical revisions under AS 44.62.125(b)(6), to 18 AAC 78.600(e) and (f), reflecting the Department of Environmental Conservation's renumbering of paragraphs in 18 AAC 78.345(b), effective 10/9/2008 (Register 188).

**18 AAC 78.605. Soil sample number and location.** (a) The owner or operator of a UST shall collect and analyze soil samples to verify that a site subject to corrective action meets the cleanup levels and requirements of this chapter. Soil samples must be collected and analyzed in accordance with 18 AAC 78.271.

(b) The minimum number of final verification grab samples required for excavated soil that have been treated is set out in Table C of this section.

<b>TABLE C</b>	
<b>NUMBER OF SAMPLES FOR POST-TREATMENT EXCAVATED SOIL</b>	
<b>Cubic Yards of Soil</b>	<b>Minimum Number of Samples</b>
0-10	1
11-50	2
51-100	3
101-500	5
501-1000	7
1001-2000	10
More than 2000	10 samples, plus one additional sample for each additional 500 cubic yards, or additional samples as the department determines necessary to ensure protection of human health and safety, and of the environment

(c) For untreated stockpiled soil, at least two grab samples must be collected from stockpiles of 50 cubic yards or less, with at least one additional sample collected from each additional 50 cubic yards of soil or portion thereof over the initial 50 cubic yards.

(d) Samples for any soil remaining in place at the site must be sufficient in number and location to represent the condition of the soil. (Eff. 1/22/99, Register 149; am 6/25/99, Register 150)

**Authority:** AS 46.03.020 AS 46.03.365

**18 AAC 78.610. Soil cleanup levels.** (a) The owner or operator shall ensure that corrective action activities at the site meet applicable soil cleanup levels as determined under 18 AAC 75.340 - 18 AAC 75.341. If the department, as part of its approval of soil cleanup levels under 18 AAC 75.340 - 18 AAC 75.341, determines that compliance with an institutional control is required, the department will make that determination under 18 AAC 78.625.

(b) If an analysis of soil samples as required in this chapter shows soil to be contaminated with a hazardous substance other than a petroleum product, the owner or operator is subject to 18 AAC 75 and, as applicable, 18 AAC 60, 18 AAC 62, 18 AAC 70, 18 AAC 72, or another chapter of this title.

(c) Except as provided in 18 AAC 75.340(c) - (f), soil at a site where groundwater has been impacted by petroleum leachate must meet the soil cleanup levels in 18 AAC 75.341(a), Table A1, Part B, Category A unless the department approves another soil cleanup level under 18 AAC 75.340. (Eff. 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.050 AS 46.03.365

**18 AAC 78.615. Groundwater and surface water sample number and location.** (a) If available evidence indicates that groundwater contains a hazardous substance in concentrations exceeding the applicable cleanup level determined under 18 AAC 75.345, or that surface water contains a hazardous substance in concentrations exceeding the applicable standard in 18 AAC 70.020(b), the owner or operator of the UST that caused or contributed to the groundwater or surface water contamination shall, collect and analyze water samples to verify that the corrective action activities met the corrective action requirements of this chapter.

(b) Groundwater monitoring wells must be installed, developed, and decommissioned in accordance with the department's *Recommended Practices for Monitoring Well Design, Installation, and Decommissioning*, April 1992, adopted by reference, or another method that the department determines to be protective of human health and safety, and of the environment. Samples must be collected in accordance with the *UST Procedures Manual*.

(c) If a hazardous substance at a UST site has impacted surface water quality, the owner or operator of the UST that caused or contributed to the impact shall, after corrective action, collect and analyze surface water samples to verify that the corrective action activities met the corrective action requirements of this chapter. Analysis of water samples must be conducted in

accordance with the *UST Procedures Manual*. (Eff. 1/22/99, Register 149; am 6/25/99, Register 150)

**Authority:** AS 46.03.020 AS 46.03.050 AS 46.03.365

**Editor's note:** *Recommended Practices for Monitoring Well Design, Installation, and Decommissioning*, adopted by reference in 18 AAC 78.615, may be viewed at or requested from the department's Anchorage, Fairbanks, Juneau, and Soldotna offices.

**18 AAC 78.620. Groundwater and surface water cleanup levels.** The owner or operator shall complete corrective action activities and ensure that the site meets applicable groundwater cleanup levels determined under 18 AAC 75.345 and the applicable surface water quality standards and requirements of 18 AAC 70. If the department, as part of its approval of those cleanup levels, determines that compliance with an institutional control is required, the department will make that determination under 18 AAC 78.625. (Eff. 1/22/99, Register 149)

**Authority:** AS 46.03.020 AS 46.03.050 AS 46.03.365

**18 AAC 78.625. Institutional controls.** (a) The department will, after consultation with each landowner of the site, determine that the use of an institutional control is necessary, on a site-specific basis, if the department determines that controls are required to ensure

- (1) compliance with an applicable cleanup level;
- (2) protection of human health or safety, or of the environment; or
- (3) the integrity of site corrective action activities or improvements.

(b) Institutional controls include

(1) the requirement for and maintenance of physical measures, such as fences and signs to limit an activity that might interfere with corrective action or result in exposure to a contaminant at the site;

(2) the requirement and maintenance of engineering measures such as liners and caps to limit exposure to a contaminant;

(3) restrictive covenants, easements, deed restrictions, or other measures that would be examined during a routing title search, and that limit site use or site conditions over time or provide notice of any residual contamination; and

(4) a zoning restriction or land use plan by a local government with land use authority.

(c) The use of institutional controls must, to the maximum extent practicable, be

(1) appurtenant to and run with the land so that the control is binding on each future owner of the site; and

(2) maintained by each owner or operator of the site.

(d) If the department determines any of the following are necessary to protect human health or safety, or the environment, the department will require that institutional controls be designed to accomplish one or more of the following:

(1) prohibit activities on the site that might interfere with the site corrective action activities, operation and maintenance, monitoring, or other response actions;

(2) prohibit activities that might result in the release of a contaminant that was contained as a part of the site corrective action activities;

(3) require written notice to the department of any proposal to use the site in a manner that is inconsistent with a restrictive covenant or other measure described in (b)(3) of this section; and

(4) grant the department and its designated representatives the right to enter the property at reasonable times to evaluate compliance with the institutional control, including the right to take samples, inspect any corrective actions taken at the site, and inspect records relating to the operation and maintenance of the institutional control.

(e) If the department determines that financial assurance is necessary to ensure protection of human health or safety, or of the environment, the department will require the owner or operator to provide financial assurance sufficient to cover costs of operation and maintenance, including compliance monitoring and corrective measures, for any institutional control.

(f) If the concentrations of all residual contaminants remaining at the site are subsequently determined to be below the applicable cleanup levels, the department will approve, at the owner's request, elimination of the institutional control. (Eff. 1/22/99, Register 149)

<b>Authority:</b>	AS 46.03.020	AS 46.03.740	AS 46.04.110
	AS 46.03.050	AS 46.03.745	AS 46.09.060
	AS 46.03.365	AS 46.04.020	AS 46.09.070
	AS 46.03.710	AS 46.04.070	

**Article 8. Underground Storage Tank Laboratory Approval.****Section**

800. Approval requirements

810. Laboratory status

815. Change in laboratory status

**18 AAC 78.800. Approval requirements.** (a) Laboratory chemical analyses of soil and water required to be conducted under this chapter must be performed by a laboratory approved by the department under 18 AAC 78.800 - 18 AAC 78.815. If an owner or operator submits samples of soil or water under 18 AAC 78.090, 18 AAC 78.235, or 18 AAC 78.600 - 18 AAC 78.620, the manager of the laboratory that performs the chemical analysis shall include with each analysis the current state laboratory UST identification number. The department will assign a laboratory that number if the department receives an application and fee under this section from the laboratory. The department will not accept the submission of a soil or water sample analysis without that number.

(b) To obtain approval of the laboratory, the laboratory manager must

(1) submit a complete application on a form supplied by the department and pay a nonrefundable \$800 annual fee for department review of the laboratory's application, quality assurance (QA) manual, and performance evaluation (PE) audit sample results;

(2) submit a notarized statement signed by the laboratory manager, certifying that, for purposes of AS 46.03.365 – 46.03.450 and this chapter, the laboratory will adhere to the methods listed in Table 1 in the *UST Procedures Manual* and will include the standard operating procedures (SOPs) for those methods in its QA manual;

(3) unless waived under (f) of this section, submit for approval a QA manual or similar document that assures generation of quality data by the laboratory; the QA manual must contain the methods referred to in (2) of this subsection and must include the minimum elements described in EPA's *Guidance on Preparation of Laboratory Quality Assurance Plans*, Revision No. 1, dated October 9, 1992, (EPA 910/9-92-032), adopted by reference; and

(4) pass the performance evaluation audits for gasoline range organics, diesel range organics, residual range organics, and BTEX required under (c) and (d) of this section.

(c) A laboratory manager seeking an initial approval or renewal of approval under this section and 18 AAC 78.810 shall demonstrate the laboratory's ability to analyze samples for the parameters listed in Table 1 of the *UST Procedures Manual* by successfully analyzing PE samples, using one or more of the methods specified in Table 1, for gasoline range organics, diesel range organics, residual range organics, and BTEX in solids and in waters. The laboratory manager shall submit the analysis of the PE samples to the department no earlier than 90 days before the application is submitted and no later than 30 days after the application is submitted. If the PE result falls outside the acceptable range, the laboratory manager shall submit to the department, within 30 days after the laboratory manager receives notice of the failure, a

corrective action report that identifies the cause of failure and includes a remedial action plan. If the department

(1) approves the corrective action report, the department will place the laboratory on provisionally approved status; within six months, the laboratory manager shall have the laboratory reanalyze a PE sample of the regulated analyte for which the previous analysis was unacceptable; if the laboratory

(A) passes the PE, the department will approve the laboratory; or

(B) fails the PE, the department will remove the laboratory from provisionally approved status and deny approval;

(2) does not approve the corrective action report, the department will deny approval.

(d) In the analysis of PE samples under (c) of this section, the laboratory shall use the required methods listed in Table 1 of the *UST Procedures Manual*. The laboratory manager shall obtain PE samples from a supplier listed by the American Association for Laboratory Accreditation unless the department, after receiving a written request from the laboratory manager, approves use of another supplier. The department will approve the use of another supplier if the laboratory manager demonstrates that a national or international accreditation body has accredited the supplier, based on evaluation of the supplier's technical qualifications, competence for conducting specific test methods, measurements, and services in specified fields of calibration or testing, and an onsite audit. To pass a PE, the analysis of each sample analyzed must be accurate to a minimum confidence interval of 95 percent.

(e) If a change in the laboratory operations affects the minimum elements described in the QA manual under (b)(3) of this section, the laboratory manager shall report the change to the department within 30 days after the change occurs. Laboratory approval is valid only if the QA manual reflects the minimum elements currently in effect at the laboratory.

(f) If a laboratory is accredited, certified, or approved for organic and inorganic analytical methods for purposes of another chapter in this title, the department, upon request, will waive the requirement to submit a QA manual for approval under (b)(3) of this section, unless the department determines that compliance with (b)(3) is necessary to assure generation of quality data. A laboratory manager requesting a waiver under this subsection shall submit a written request and the laboratory's current EPA identification number to the department.

(g) To renew an approval, a laboratory manager must submit an application with the required \$800 annual fee no more than 90 days and no less than 30 days before approval expires, and must perform the demonstration required in (c) of this section. Failure to submit a completed renewal application and fee when due results in lapse of approval.

(h) Approval under 18 AAC 78.800 - 18 AAC 78.815 constitutes a certification for purposes of AS 44.46.025. (Eff. 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150)

**Authority:** AS 44.46.020                      AS 46.03.020                      AS 46.03.365  
AS 44.46.025

**Editor's note:** 1. The EPA's *Guidance on Preparation of Laboratory Quality Assurance Plans*, Revision No. 1, adopted by reference in 18 AAC 78.800, may be reviewed at the department's offices in Anchorage, Fairbanks, Juneau, and Soldotna, or may be obtained from the United States Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101, phone: (360) 871-0748, fax: (360) 871-8747.

2. The American Association for Laboratory Accreditation may be contacted at 5301 Buckeystown Pike, Suite 350, Frederick, MD 21704-8307, phone: (301) 644-3248.

3. Application materials are available upon request from the State Environmental Health Lab, 5251 Hinkle Road, Anchorage, Alaska 99507, phone: (907) 375-8200, fax: (907) 929-7335. Application materials include the names and addresses of suppliers listed by the American Association for Laboratory Accreditation. The department's list of suppliers is updated on a periodic basis and may not reflect recent changes.

4. As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney made a technical revision to 18 AAC 75.800(b)(2). This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed AS 46.03.060 and 46.03.363.

**18 AAC 78.810. Laboratory status.** Based on its review of the application, the QA manual, and the PE results submitted under 18 AAC 78.800, and subject to change under 18 AAC 78.815, the department will, upon initial application or renewal, place a laboratory in one of the following classifications:

(1) "provisionally approved," for a limited approval that allows a laboratory to operate as an approved laboratory while the laboratory's application is pending due to circumstances described in (A) - (C) of this paragraph, or for one year, whichever period is less; for a laboratory with provisional approval, the laboratory manager shall ensure that all requirements for full approval are completed before provisional approval expires or the department will deny approval upon reapplication; the department will grant provisional approval to a laboratory that is not currently provisionally approved and that has not previously been denied approval, if at least one of the following circumstances exist:

(A) the department cannot process applications for approval in a timely manner;

(B) the department determines that laboratory has minor deficiencies in its QA manual;

(C) the laboratory fails one or more parameters from a PE and provides an acceptable corrective action report as required in 18 AAC 78.800(c);

(2) “approved,” for the full or partial approval of a laboratory that meets the requirements of 18 AAC 78.800; the department will send a letter of acceptance and a certificate of approval to the laboratory manager; an approval

(A) is effective for one year;

(B) is partial if the department denies approval for a specific parameter; the department will deny approval for a specific parameter if the laboratory has not passed the PE for that parameter as required under 18 AAC 78.800; and

(C) for gasoline range organics, diesel range organics, residual range organics, and BTEX is limited to the methods for which the laboratory demonstrated the ability to successfully analyze PE samples under 18 AAC 78.800;

(3) “disapproved,” for a laboratory that does not receive approval; the department will disapprove an application if the department determines that the laboratory manager has

(A) failed to demonstrate that the laboratory meets the requirements of 18 AAC 78.800;

(B) misrepresented the laboratory's capabilities;

(C) failed to disclose pertinent information in the application; or

(D) failed to pay the required fee. (Eff. 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150)

**Authority:** AS 44.46.020            AS 46.03.020            AS 46.03.365  
AS 44.46.025

**18 AAC 78.815. Change in laboratory status.** (a) If the department receives a written complaint about a laboratory's performance, the department will, in its discretion, review that laboratory's work product, submittals to the department, and the results of any investigation conducted under (e) of this section. If, based on a review under this section, the department determines action is warranted, the department will

(1) downgrade the laboratory to provisionally approved status; or

(2) suspend or revoke approval, or provisional approval, subject to 18 AAC 78.960.

(b) The department will downgrade a laboratory's status because of an unsatisfactory PE, as follows:

(1) if a laboratory with provisionally approved status fails a PE, the department will revoke the provisional approval and downgrade the laboratory to disapproved status;

(2) if an approved laboratory fails a PE, the laboratory manager shall submit to the department a corrective action report within 30 days after receiving notice of the failure; if the department

(A) approves the corrective action report, the department will maintain the laboratory's approved status; within six months, the laboratory manager shall ensure that a PE sample of the analyte for which the previous analysis was unacceptable is reanalyzed; if the laboratory

(i) fails the follow-up PE, the department will revoke the laboratory's approval and downgrade the laboratory to disapproved status; or

(ii) passes the follow-up PE, the department will maintain the laboratory's approved status; or

(B) does not approve the corrective action report, the department will place the laboratory on provisionally approved status.

(c) The following are grounds for suspension or revocation of approval or of provisionally approved status:

(1) violating or failing to meet a requirement applicable to the operation of a laboratory under this chapter;

(2) misrepresenting a laboratory's qualifications, capabilities, or experience;

(3) falsifying data or a report;

(4) engaging in unethical or fraudulent practices in generating analytical data;

(5) failing an onsite investigation under (e) of this section;

(6) operating under significant deficiencies in quality assurance as evidenced by the production of invalid analytical data or otherwise being unable to provide accurate analytical data using approved methods.

(d) In addition to the grounds for suspension or revocation of approval stated in (c) of this section, the department will suspend or revoke approval or the provisionally approved status of a laboratory that is principally owned, operated, or controlled by an entity that has been suspended or otherwise restricted in its laboratory operation by a federal agency or by an agency of this state or another state, if the suspension or revocation based on grounds listed in (c)(2)-(4) of this section or on significant deficiencies in quality assurance.

(e) If available information indicates that an approved or provisionally approved laboratory is frequently submitting erroneous data or is otherwise not performing according to the requirements of 18 AAC 78.800, the department will, in its discretion, conduct an onsite investigation of the laboratory. The department will charge the laboratory \$73 per hour for costs of the investigation, including development of the report that describes each area of noncompliance.

(f) The department will maintain a list of approved and provisionally approved laboratories and will distribute the list to interested persons upon request. (Eff. 1/22/99, Register 149)

**Authority:** AS 44.46.020                      AS 46.03.020                      AS 46.03.365  
AS 44.46.025

**Article 9. General Provisions.****Section**

- 910. Financial responsibility
- 920. Coordination with related federal, state, and local requirements
- 930. Waivers or modifications
- 940. Enforcement
- 950. (Deleted)
- 960. Appeals
- 995. Definitions

**18 AAC 78.910. Financial responsibility.** The financial responsibility requirements of 40 C.F.R. 280.90 - 280.115 and 281.37, as amended through September 22, 1995, are adopted by reference in this section. Nothing in this chapter exempts the owner or operator of a UST from meeting any other applicable federal financial responsibility requirement. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136)

**Authority:** AS 46.03.020                      AS 46.03.365                      AS 46.03.405

**Editor's note:** As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney made a technical revision to the authority citation following 18 AAC 78.910. This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed AS 46.03.360.

**18 AAC 78.920. Coordination with related federal, state, and local requirements.**  
(a) Nothing in this chapter exempts the owner or operator of a UST from meeting any other applicable requirement of federal, state, or local law.

(b) For purposes of 40 C.F.R., Part 281, as amended through September 22, 1995, if a court determines that a provision of this chapter is inconsistent with its corresponding provision in federal law under 40 C.F.R. Part 280, as amended through September 22, 1995, then the corresponding federal provision prevails. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136)

**Authority:** AS 46.03.020                      AS 46.03.365

**Editor's note:** As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney made a technical revision to the authority citation following 18 AAC 78.920. This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed AS 46.03.360.

**18 AAC 78.930. Waivers or modifications.** (a) Except as provided in (b) of this section, and if the department determines that a waiver or modification will be protective of human health 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 shall prepare and sign the report submitted under this section.

(b) For purposes of this chapter, the department will waive on a site-specific basis the requirement in 18 AAC 78.088(b)(1) that a qualified environmental professional be an impartial third party or the requirement in 18 AAC 78.088(c)(1) that a qualified sampler be an impartial third party if

(1) a person

(A) who seeks a waiver from 18 AAC 78.088(b)(1) demonstrates that work performed will be conducted or supervised by an objective individual who meets the requirements of 18 AAC 78.088(b)(2) - (5);

(B) who seeks a waiver from 18 AAC 78.088(c)(1) demonstrates that work performed will be conducted or supervised by an objective individual who meets the requirements of 18 AAC 78.088(c)(2) - (5); and

(C) submits

(i) a written request for a waiver;

(ii) the resume of the person qualified to conduct or supervise the work to be performed, showing relevant education, vocational training, related work experience, and any special training, license, certificate, or registration held by that person; and

(iii) a description of the supervisory and organizational structure related to the person identified in (ii) of this subparagraph; and

(2) the department determines that a waiver is protective of human health, safety, and welfare, and of the environment, and that strict compliance with the impartial third party requirement is not practicable. (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 6/17/2015, Register 214)

**Authority:** AS 46.03.020            AS 46.03.365            AS 46.03.375

**18 AAC 78.940. Enforcement.** The department will, in its discretion, take enforcement action in response to a violation of this chapter, using the compliance procedures at 18 AAC 95. Nothing in this section precludes the department from taking other appropriate action under AS 46.03.758, 46.03.760, 46.03.765, 46.03.790, or other applicable law. The department will, in its discretion, suspend or revoke an approval issued under this chapter as a means of enforcing the provisions of this chapter. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136)

**Authority:** AS 46.03.020                      AS 46.03.760                      AS 46.03.790  
                   AS 46.03.365                      AS 46.03.765                      AS 46.03.850  
                   AS 46.03.758

**18 AAC 78.950. Dispute resolution.** Deleted. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 4/16/2000, Register 154; am 1/30/2003, Register 165; deleted as of Register 179, October 2006)

**Editor's note:** As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney deleted 18 AAC 78.950. This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed statutes establishing the Board of Storage Tank Assistance, underground storage tank revolving loan fund, and tank cleanup loan program. Section 3, ch. 102, SLA 2006 annulled regulations made obsolete by those repeals.

**18 AAC 78.960. Appeals.** Any person who is aggrieved by a department decision regarding issuance, denial, suspension, or revocation of an approval or certification under this chapter may request an adjudicatory hearing under 18 AAC 15.195 - 18 AAC 15.340. (Eff. 11/3/95, Register 136; am 7/11/2002, Register 163)

**Authority:** AS 46.03.020                      AS 46.03.365                      AS 46.35.090

**18 AAC 78.995. Definitions.** Unless the context indicates otherwise, in this chapter or in AS 46.03.365 - 46.03.450

(1) "aboveground release" means a release to the surface of the land or to surface water, including a release from the aboveground portion of a UST, and an aboveground release associated with overfills or transfer operations as the petroleum moves to or from a UST;

(2) "accuracy" means the degree of agreement between an analytical result and the true value;

(3) "airport hydrant fuel distribution system" means an underground or above-ground fuel piping system connected to a fuel storage tank if the system includes

(A) a bulk reservoir of at least 100,000 gallons;

(B) a fuel dispensing station located 200 feet or more from the storage tank;

- (C) multiple hydrants;
- (D) pipe diameter of at least six inches;
- (E) system operating pressure capable of at least 75 psi; and
- (F) a minimum monthly flow-through of 1,000,000 gallons;

(4) "alkane range" means a group of saturated open-chain hydrocarbons that have the general formula  $C_nH_{2n+2}$ ;

(5) "analytical method" means a set of written instructions that define procedures to be followed by an analyst to obtain the required result;

(6) "ancillary equipment" has the meaning given that term in the definition for "underground petroleum storage tank system" in AS 46.03.450;

(7) "applicant" means a person who has applied for certification, approval, or assistance under this chapter;

(8) "approval" means written approval by the department;

(9) "approved" means approved in writing by the department;

(10) "aromatic" means of, related to, or containing one or more six-carbon rings characteristic of the benzene series and related organic groups;

(11) "before beginning work" means before a change, upgrade, addition, or removal of any part of a UST, including associated equipment and material surrounding the UST, or before a change-in-service;

(12) "belowground release" means a release of petroleum to the subsurface of the land or to groundwater, including a release from the belowground portion of a UST, and a belowground release associated with an overfill or transfer operation as the petroleum moves to or from a UST;

(13) "beneath the surface of the ground," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means overspread with earthen materials;

(14) "bioremediation" means a remediation method that decreases the concentration of a contaminant in soil through biological action;

(15) deleted;

(16) "BTEX" means benzene, toluene, ethylbenzene, and total xylenes;

(17) "carcinogen" means

(A) a substance that is expected to cause cancer in nonhuman life; or

(B) for human health purposes, a substance that meets the criteria of a Group A or Group B carcinogen according to EPA's *Guidelines for Carcinogen Risk Assessment*, 51 Fed. Reg. 33992, 33999 - 34000 (Sept. 24, 1986), adopted by reference;

(18) "carcinogenic" means of or relating to a carcinogen;

(19) "cathodic protection" means a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell; for example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current;

(20) "certification" means a certification of competency issued by the division under this chapter indicating that a person has met the requirements for a specified category of UST work;

(21) "certified" means having been issued a certification;

(22) "certified tank worker," or "certified worker" mean a person who has been issued certification for a specific category of UST work by the division;

(23) "change in configuration" means a change, upgrade, addition, or removal of a part of a UST and ancillary equipment;

(24) "change-in-service" means a change in the use of a UST

(A) from containing petroleum to containing a substance other than petroleum; or

(B) to a use that removes the tank from the definition of "underground storage tank" at AS 46.03.450;

(25) "chemical" has the meaning given in AS 46.03.450;

(26) "cleanup level" means the concentration of a contaminant that may be present within a specified medium and under specified exposure conditions without posing a threat to human health or safety, or to the environment;

(27) "close" has the meaning given in AS 46.03.375(g)(1);

(28) "closure" means to remove all petroleum and sludges from each UST in the UST system and either fill each UST with inert solid material or remove, dismantle, and dispose of each UST;

(29) "compatible," as used to describe two or more substances, means able to maintain respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST;

(30) "connected underground piping" means the underground piping, including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which petroleum flows; to determine how much piping is connected to a UST, the piping that joins two USTs is allocated equally between them;

(31) "construction season" means April 1 through September 30;

(32) deleted;

(33) "contaminant" means a hazardous substance;

(34) "contaminated groundwater" means groundwater with concentrations of contaminants that exceed the applicable groundwater levels referenced in 18 AAC 78.600 and 18 AAC 78.620;

(35) "contaminated soil" means soil with concentrations of contaminants that exceed the applicable soil cleanup levels referenced in 18 AAC 78.600 - 18 AAC 78.610;

(36) "contaminated surface water" means surface water with concentrations of contaminants that exceed the applicable water quality standards in 18 AAC 70;

(37) "corrective action" has the meaning given in AS 46.03.450;

(38) "corrective action plan" means a plan that describes the procedures proposed by the owner or operator under 18 AAC 78.250 to investigate, assess, correct, contain, and clean up a petroleum release, and, if financial assistance is requested, contains an interim cleanup cost estimate;

(39) "corrosion" means the deterioration of metal from the loss of positive charged metal ions from the metal surface into an electrolyte;

(40) "corrosion expert" means a person who

(A) by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired through a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks; and

(B) is accredited or certified as being qualified by the National Association of Corrosion Engineers or is a registered engineer with education and experience in corrosion control of buried or submerged metal piping systems and metal tanks;

- (41) "corrosion protection" means a measure to prevent degradation of UST components caused by electrolysis or chemical action;
- (42) "corrosion protection equipment" means cathodic protection systems and dielectric coatings that prevent electrolysis or chemical action;
- (43) "degradation" means a process by which a chemical is reduced to a less complex form;
- (44) "demonstrate" means to prove through demonstration or other evidence to the department's satisfaction;
- (45) "demonstration" means proof through documentation or other evidence to the department's satisfaction;
- (46) "department" means the Department of Environmental Conservation;
- (47) "dielectric material" means a material that does not conduct direct electrical current; dielectric coatings are used to electrically isolate a UST from surrounding soil; dielectric bushings are used to electrically isolate portions of the UST, such as the tank, from the piping;
- (48) "diesel range organics" or "DRO" means mid-range petroleum products, including diesel fuel, with petroleum hydrocarbon compounds corresponding to an alkane range from the beginning of n-decane (C<sub>10</sub>) to the beginning of n-pentacosane (C<sub>25</sub>) and with a boiling point range between approximately 170 - 400 degrees Centigrade;
- (49) "discharge" has the meaning given in AS 46.04.900;
- (50) "division" means the division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development;
- (51) "electrical equipment" means underground equipment that contains dielectric fluid necessary for the operation of equipment, such as transformers and buried electrical cable;
- (52) "emergency power generator" means an electrical motor-generator used exclusively to provide electrical power during primary power failure;
- (53) "engineering measure" means a modification to a site or facility, including a liner, cap, or slurry wall, that is designed by a registered engineer to reduce or eliminate the potential exposure to a contaminant;
- (54) "EPA" means the United States Environmental Protection Agency;
- (55) "excavation zone" means a space containing a UST and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST is placed when installed;

(56) "existing tank" means a UST used to contain an accumulation of petroleum and for which installation commenced on or before December 22, 1988; installation is considered to have commenced if the owner or operator had obtained all federal, state, and local approvals or permits necessary to begin construction of the site or installation of the UST and

(A) a continuous onsite construction or installation program had begun; or

(B) the owner or operator had entered into contractual obligations for physical construction at the site or installation of the UST to be completed within a reasonable time and the contract could not have been canceled or modified without substantial loss;

(57) "exposure point value" means the concentration of a contaminant determined at the point of exposure to the contaminant;

(58) "ex-situ" means as applied to soil or groundwater moved from its original place, excavated, removed, or recovered from the ground;

(59) deleted;

(60) "farm" has the meaning given in AS 46.03.450;

(61) "farm tank," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means a UST located on a farm;

(62) "field-constructed tank" means a 50,000 gallon or larger UST constructed onsite from readily available materials, but does not include a UST assembled from commercially available, factory constructed modular components;

(63) deleted;

(64) "financial assistance" means a grant, loan, or reimbursement awarded under this chapter;

(65) "flow-through process tank," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means a UST that forms an integral part of a production process through which a steady, variable, recurring, or intermittent flow of petroleum exists during the operation of the process; "flow-through process tank" does not include a UST used for the storage of petroleum before its introduction into the production process or for the storage of finished products or byproducts from the production process;

(66) "force account" means work performed by the owner or operator of a UST, or an employee of the owner or operator;

(67) "free product" means a concentration of petroleum that is present as a nonaqueous phase liquid; for purposes of this paragraph, a "nonaqueous phase liquid" is a liquid that is not dissolved in water;

(68) "gasoline" means a petroleum distillate that is used for motor fuel or heating oil and that consists predominantly of hydrocarbons corresponding to an alkane range from the beginning of n-hexane (C<sub>6</sub>) to the beginning of the n-decane (C<sub>10</sub>);

(69) "gasoline range organics" or "GRO" means light range petroleum products, including gasoline, with petroleum hydrocarbon compounds corresponding to an alkane range from the beginning of n-hexane (C<sub>6</sub>) to the beginning of n-decane (C<sub>10</sub>) and with a boiling point range between approximately 60 - 170 degrees Centigrade;

(70) "gathering lines," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means any pipeline equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations;

(71) "groundwater" has the meaning given in 18 AAC 75.990;

(72) "hazard index" means the sum of the hazard quotients attributable to non-carcinogenic contaminants with similar critical endpoints;

(73) "hazard quotient" means the ratio of the exposure point value to the reference dose for the contaminant;

(74) "hazardous substance" has the meaning given in AS 46.03.826;

(75) "heating oil" means petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil, other residual fuel oils, including Navy Special Fuel Oil and Bunker C, and other fuels if used as a substitute for one of the fuels listed in this paragraph; "heating oil" includes oil typically used in the operation of heating equipment, boilers, or furnaces;

(76) "hydraulic lift tank" means a UST holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices;

(77) "hydrocarbons" means organic compounds, such as benzene and methane, that contains only carbon and hydrogen;

(78) "in-situ" means as applied to soil or groundwater in its original place, unmoved, unexcavated, or remaining in the subsurface;

(79) "install" means to perform the work involved in placing a UST or any part of a UST in the ground and preparing it to be placed in service;

(80) "institutional control" means a measure taken to limit, prohibit, or protect against an activity that could

(A) interfere with the integrity of corrective action activities or improvements designed to encapsulate or control residual contamination; or

(B) result in human or environmental exposure to a contaminant;

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

(82) "job site" means the physical location where a UST is to be installed or removed;

(83) "laboratory" means a mobile or fixed facility capable of providing analytical services;

(84) "laboratory manager" means the person principally responsible for overall management of laboratory operations, including compliance with applicable requirements of AS 46.03.365 – 46.03.450, this chapter, and the *UST Procedures Manual*;

(85) "landfarming" means spreading contaminated soil in a thin layer on the surface of the ground so that biological activity can be enhanced by the addition of nutrients, mechanical aeration, the addition of water, adjustment of pH, and similar activities;

(86) "landspreading" means spreading contaminated soil in a thin layer on the surface of the ground, relying mainly on aeration and unenhanced biological action to perform remediation;

(87) "liquid trap," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means a sump, well cellar, or other trap used in association with oil and gas production, gathering, and extraction operations to collect oil, water, and other liquids; "liquid trap" includes a trap to temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream or to collect and separate liquids from a gas stream; in this paragraph, "oil and gas production, gathering, and extraction operations" include a gas production plant;

(88) "maintenance" means the normal operational upkeep to prevent a UST from releasing petroleum;

(89) "method detection limit" means the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the value is greater than zero, determined from an analysis of a sample in a given matrix containing the analyte used in the analysis;

(90) "motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or a grade of gasohol; "motor fuel" includes fuel that is typically used in the operation of a motor engine;

(91) "nationally recognized code of practice" means a procedure, code, or standard developed by a nationally recognized association or independent testing laboratory, or by a federal agency, including the Petroleum Equipment Institute (PEI), National Fire Protection Association (NFPA), International Fire Code Institute (IFCI), American Petroleum Institute (API), National Association of Corrosion Engineers (NACE), Occupational Safety and Health Agency (OSHA), United States Environmental Protection Agency (EPA), Steel Tank Institute (STI), Fiberglass Petroleum Tank and Pipe Institute, American National Standards Institute (ANSI), American Society of Mechanical Engineers (ASME), American Society for Testing Materials (ASTM), Underwriters Laboratories, and Underwriters Laboratories of Canada;

(92) "new tank" or "new UST" means a UST that will be used to contain an accumulation of petroleum, and for which installation commenced after December 22, 1988;

(93) "noncarcinogen" means a contaminant with adverse health effects on humans other than cancer;

(94) "noncarcinogenic" means of or relating to a noncarcinogen;

(95) "noncommercial purposes," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means, with respect to motor fuel, not for resale;

(96) "nongasoline fraction" means diesel or any other petroleum distillate used for motor fuel or heating oil that consists predominantly of hydrocarbons corresponding to an alkane range of n-decane (C<sub>10</sub>) or greater;

(97) "on the premises where stored," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means located on the same property on which the stored heating oil is used;

(98) "operational life" means the period beginning when installation of a UST commences until the UST is permanently closed under 18 AAC 78.085;

(99) "operator" means a person who is in control of, or who has responsibility for, the daily operation of a UST used to store or dispense petroleum;

(100) "overfill" means a release that occurs when a UST is filled beyond its capacity, resulting in the discharge of petroleum into the environment;

(101) "owner" means a person who owns a UST used to store or dispense petroleum;

(102) "owner or operator" means the owner or operator of a UST that is subject to the requirements of this chapter; if owner or operator is used to impose a duty that would result in a duplicative response or action if taken by both the owner and the operator, "owner or operator" means that the response or action shall be taken either by the owner or by the operator;

(103) "parameter" means a single analytical determination or group of determinations using a specific method of analysis identified by the laboratory;

(104) "performance evaluation audit" or "PE" means the analysis and reporting by a laboratory of an unknown sample provided by a source external to the laboratory;

(105) "PE sample" means a performance evaluation audit sample;

(106) "petroleum" has the meaning given in AS 46.03.450;

(107) deleted;

(108) deleted;

(109) "physical barrier" means a concrete or asphalt surface that

(A) is impermeable to water;

(B) is designed, constructed, and placed in accordance with industry standards; and

(C) provides sufficient support thickness, layering, and life to prevent compromising the structural integrity of the material;

(110) "pipe" or "piping" means a hollow cylinder or tubular conduit that is constructed of nonearthen materials;

(111) "pipeline facility," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means pipe, pipe rights-of-way, and associated equipment, gathering lines, facilities, or buildings;

(112) "plume" means a visible or measurable discharge or release of a contaminant from a given point of origin;

(113) "practicable" means capable of being designed, constructed, and implemented in a reliable and cost-effective manner, taking into consideration existing technology, site location, and logistics in light of overall project purposes; "practicable" does not include an alternative if the incremental cost of the alternative is substantial and disproportionate to the incremental degree of protection provided by the alternative as compared to another lower cost alternative;

(114) "practical quantitation limit" means the lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability when testing field samples under routine laboratory operating conditions using approved methods;

(115) "preliminary cleanup activities cost estimate" means an estimate of costs necessary to prepare and implement a corrective action plan;

(116) "professional services" means professional, technical, or consultant's services that are predominantly intellectual in character, result in the production of a report or the completion of a task, and include analysis, evaluation, prediction, planning, or recommendation;

(117) "property" means an area in which a UST is located and that is defined by legal title;

(118) repealed 6/17/2015;

(119) "quality assurance" means the act of establishing confidence that analytical data is of a known and documented degree of excellence; "quality assurance" covers the general areas of accuracy, completeness, representativeness, and comparability of data;

(120) "quality assurance program" means a totally integrated program for quality assurance, ensuring reliability of measurement data;

(121) "quality assurance manual" or "QA manual" means a written record of the policies, organization, objectives, and specific quality assurance program established by a laboratory to assure generation of quality data;

(122) "reconfiguration" means the replacement or realignment of the pipes connected to a UST, or the retrofitting of a UST or any part of a UST by adding cathodic protection, lining, release detection equipment, or spill or overfill controls that are designed to improve the ability of the UST to prevent a release;

(123) "reference dose" means the concentration of a contaminant via daily exposure through a specified exposure route for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious noncarcinogenic effects over the period of exposure;

(124) "registered engineer" means a professional engineer who is registered under AS 08.48.171 - 08.48.265;

(125) "release" has the meaning given in AS 46.08.900;

(126) "release detection" means a process or method used to determine if a release of petroleum has occurred from a UST into the environment or into the interstitial space between the UST and its secondary barrier or the secondary containment around it;

(127) "residential tank," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means a UST located on property used primarily for dwelling purposes;

(128) "residual range organic" or "RRO" means heavy range petroleum products, including lubricating oils, with petroleum hydrocarbon compounds corresponding to an alkane range from the beginning of n-pentacosane (C<sub>25</sub>) to the beginning of n-hextriacontane (C<sub>36</sub>) and a boiling point range between approximately 400 - 500 degrees Centigrade;

(129) "return to service" means to dispense, replenish, or sell petroleum;

(130) deleted;

(131) "secondary containment" means features of a UST that are designed to

(A) contain all leaks and spills from tanks and associated underground equipment; and

(B) prevent the escape of a leak or spill into the surrounding soil, surface water, or groundwater;

(132) "septic tank," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means a watertight, covered receptacle designed and built to receive domestic wastewater, separate floating and settling solids from the liquid, anaerobically digest organic matter, store digested solids through a period of detention, and allow clarified liquids to discharge for final disposal;

(133) "significantly reconfigure" means to perform a reconfiguration;

(134) "site" means an area that is contaminated, including areas contaminated by the migration of a contaminant from a source area, regardless of property ownership;

(135) "site assessment" has the meaning given in AS 46.03.450;

(136) "soil" means an unconsolidated geologic material, including clay, loam, loess, silt, sand, gravel, tills, or any combination of these materials;

(137) "solidification" means the mixing of an additive into contaminated soil to immobilize the contaminants in the soil;

(138) "standard operating procedure" or "SOP" means a detailed written description of a procedure designed to systematize the performance of the procedure;

(139) "storm water or waste water collection system," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation or domestic or nondomestic wastewater to and from a retention area or an area where treatment is designated to occur; "storm water or waste water collection system" does not include treatment except if incidental to conveyance; "stormwater or wastewater collection system" includes

(A) gravity, pressure, and vacuum sewers, including associated parts such as manholes and cleanouts;

(B) pump or collection stations; and

(C) each part of a collector sewer, regardless of ownership of the land on which it is installed;

(140) "substandard UST" means a UST that does not have corrosion protection or spill and overflow control;

(141) "sufficient evidence" means proof that satisfies the department;

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

(A) to take direct responsibility for preparing each report or making an interpretation regarding field data;

(B) to exercise onsite control over all work that requires assessment, investigation, characterization, reporting, or interpretation, including

(i) selection of the location or depth of sample points in soil, groundwater, surface water, or stockpiles;

(ii) location, placement, or supervision of construction or completion of monitoring or corrective action wells;

(iii) description of site characteristics, soil characteristics, or geological characteristics in field notes that will be used by the assessment firm in the report submitted to the owner or operator of the project;

(iv) duties required to be performed under the *UST Procedures Manual* other than those strictly limited to the physical act of sample collection and transport; and

(v) collection of final verification samples; and

(C) to exercise onsite or offsite control over routine tasks associated with the physical act of sample collection and transportation;

(143) "surface impoundment," as used in the definition of "underground storage tank" in AS 46.03.450, means a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although the depression, excavation, or area might be lined with man-made materials; "surface impoundment" does not include an injection well;

(144) "surface water" means waters of the state naturally open to the atmosphere including rivers, lakes, reservoirs, streams, impoundments, and seas;

(145) "taken out of service" means, with reference to a UST; a UST is considered empty if all materials are removed so that no more than 2.5 centimeters or one inch of residue, or

0.3 percent by weight of the total capacity of the UST, remains in the system; "taken out of service" is sometimes referred to as "out of use," "not in use," or "out of operation";

(146) "tank" means a stationary device that is designed to hold an accumulation of petroleum, and that is constructed of nonearthen materials such as concrete, steel, or plastic that provide structural support;

(147) "tank system" has the meaning given in AS 46.03.450;

(148) "tank tightness test" means a leak detection method capable of detecting a leak rate of at least 0.1 gallons per hour in any part of a UST that routinely contains petroleum, including associated piping, while accounting for the effects of thermal expansion or contraction of the petroleum, vapor pockets, tank deformation, evaporation, condensation, and the location of the water table;

(149) "technology" means equipment, supplies, other resources, and related practices;

(150) "test" means to perform a tank tightness test or a cathodic protection test;

(151) "total xylenes" means the sum of the ortho-xylene, meta-xylene, and para-xylene concentrations;

(152) "transmissivity" means the rate at which water is transmitted through a unit width of an aquifer or confining bed under a hydraulic gradient of one;

(153) "underground area," as that term is used in the definition of "underground storage tank" in AS 46.03.450, means an underground room such as a basement, cellar, shaft, or vault that provides enough space for physical inspection of the exterior of a UST that is located on or above the surface of the floor;

(154) "underground storage tank" has the meaning given in AS 46.03.450;

(155) "underground petroleum storage tank system" and "underground storage tank system" have the meaning given to "underground petroleum storage tank system" in AS 46.03.450;

(156) "upgrade" or "upgrading" means to add or retrofit cathodic protection systems, lining, spill and overflow controls, or similar systems to improve the ability of a UST system to prevent a release;

(157) "UST" means an underground storage tank or an underground storage tank system;

(158) "*UST Procedures Manual*" means the department's *Underground Storage Tanks Procedures Manual* adopted by reference in 18 AAC 78.007;

(159) "vadose zone" means the ground layer beneath the topsoil and overlying the water table in which water in pore spaces coexists with air or in which geological matter is unsaturated;

(160) "vault" means an enclosure that

(A) is liquid tight, vapor tight, and without backfill inside;

(B) is reinforced with concrete at least six inches thick on the sides, top, and bottom of the enclosure;

(C) has openings for inspection through the top only;

(D) has tank connections piped or closed so that neither vapors nor liquid can escape into the enclosure; and

(E) permits portable equipment to discharge to the outside vapors that may accumulate should leakage occur;

(161) "wastewater collection system" is defined within the definition of "storm water or waste water collection system" in this section;

(162) "wastewater treatment tank" means a UST designed to receive and treat an influent wastewater through physical, chemical, or biological methods; and

(163) "working day" means a day other than Saturday, Sunday, or a state holiday.

(164) "qualified environmental professional" means an individual described in 18 AAC 78.088(b);

(165) "qualified sampler" means an individual described in 18 AAC 78.088(c). (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 6/17/2015, Register 214)

<b>Authority:</b>	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		

**Editor's note:** A listing of sources for nationally-recognized codes of practice, as that term is defined in 18 AAC 78.995, may be found in the editor's note following 18 AAC 78.025.

**Editor's note:** As of Register 171 (October 2004), the regulations attorney made technical revisions under AS 44.62.125(b)(6) to reflect the name change of the Department of Community and Economic Development to the Department of Commerce, Community, and

Economic Development made by ch. 47, SLA 2004 and the corresponding title change of the commissioner of community and economic development.

As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney made technical revisions to the lead-in language of 18 AAC 78.995 and to 18 AAC 78.995(84); deleted 18 AAC 78.995(15), (32), (59), (63), (107), (108), and (130); and made technical revisions to the authority citation following 18 AAC 78.995. These changes reflect the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed statutes establishing the Board of Storage Tank Assistance, underground storage tank revolving loan fund, and tank cleanup loan program. Section 3, ch. 102, SLA 2006 annulled enumerated regulations made obsolete by those repeals, including the definitions in 18 AAC 78.995(15), (32), (59), and (130). The regulations attorney additionally deleted definitions in 18 AAC 78.995(63), (107), and (108), reflecting the annulment of those regulations in which the defined terms appear or to which they relate.