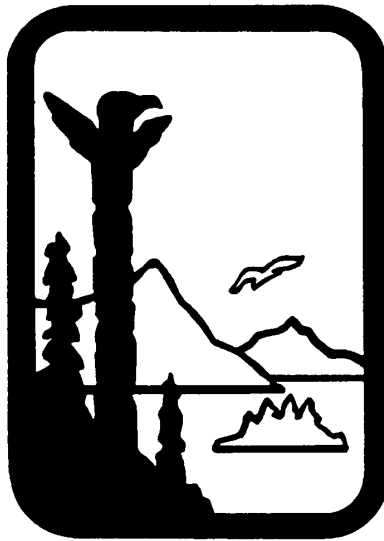


**DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**



18 AAC 78

Underground Storage Tanks

Amended as of July 19, 2013

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 JULY 19, 2013, ARE IN REGISTER 207, AND WILL APPEAR IN OFFICIAL PUBLISHED FORM IN THE OCTOBER 2013 SUPPLEMENT TO THE ALASKA ADMINISTRATIVE CODE.

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CHAPTER 78. UNDERGROUND STORAGE TANKS.

Article

1. Underground Storage Tanks (18 AAC 78.005 - 18 AAC 78.100)
2. Corrective Action for Leaking Underground Storage Tanks
(18 AAC 78.200 - 18 AAC 78.280)
3. (Repealed)
4. Certification of Underground Storage Tank Workers and Inspectors
(18 AAC 78.400 - 18 AAC 78.499)
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6. Cleanup Levels (18 AAC 78.600 - 18 AAC 78.625)
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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(c) Repealed 11/3/95.

(d) Repealed 1/30/2003.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 November 7, 2002, is adopted by reference. The department will use this version of the *UST Procedures Manual* in making determinations under this chapter. (Eff. 1/22/99, Register 149; am 6/25/99; Register 150; am 4/16/2000, Register 154; am 1/30/2003, Register 165)

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 obtained from the department and may be reviewed at the department's Anchorage, Fairbanks, Juneau, and Soldotna offices.

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;

- (3) corrosion protection;
- (4) emergency response;
- (5) product compatibility with systems and equipment used at the facility;
- (6) financial responsibility requirements and documentation;
- (7) reporting and recordkeeping requirements;
- (8) notification requirements;
- (9) release and suspected release reporting;
- (10) temporary out-of-service requirements and temporary and permanent closure requirements;
- (11) operator training requirements.

(d) Except as provided in (i) of this section, an individual having daily onsite responsibility for the operation and maintenance of the UST must successfully complete training as a Class B operator. A Class B operator is not required to be on site at all times. A Class B operator must be trained in systems and equipment specific to the facility for which the operator is responsible. A Class B operator must successfully complete training in each of the following areas:

- (1) components of the UST system;
- (2) materials used in the construction of the UST system;
- (3) the methods of release detection and release prevention used on the UST system;
- (4) operation, maintenance, and inspection requirements of the UST system in accordance with this chapter, including
 - (A) spill and overfill prevention;
 - (B) release detection; and
 - (C) corrosion protection;
- (5) emergency response;
- (6) product compatibility with systems and equipment used at the facility;

- (7) release and suspected release reporting;
- (8) reporting and recordkeeping requirements;
- (9) operator training requirements.

(e) An individual having any daily onsite responsibility for addressing an emergency presented by a spill or release from the UST must successfully completed training as a Class C operator. A Class C operator must successfully complete training on site-specific emergency response procedures and equipment, emergency shutoff systems, contact information, types of alarms, how to respond to an alarm and how to read alarm panels if installed.

(f) An individual required to receive training as a Class A operator may obtain classroom training, or training delivered over the Internet, if that program provides training and evaluation of operator knowledge in the areas listed in (c)(1) – (11) of this section, and provides a certificate of successful completion of the training. The department will maintain a list of classroom and Internet-delivered training programs that provide training and evaluation of operator knowledge in the areas listed in (c)(1) – (11) of this section and a certificate of successful completion of the training. The certificate of successful completion must be kept at the facility for the duration of employment plus five years and be available for inspection. The Class A operator must ensure that the department receives, no later than 30 days after the operator completes the training, a copy of the certificate of successful completion.

(g) An individual required to receive training as a Class B operator may obtain classroom training, or training delivered over the Internet, if that program provides training and evaluation of operator knowledge in the areas listed in (d)(1) – (9) of this section, and provides a certificate of successful completion of the training. The department will maintain a list of classroom and Internet-delivered training programs that provide training and evaluation of operator knowledge in the areas listed in (d)(1) – (9) of this section and a certificate of successful completion of the training. The certificate of successful completion must be kept at the facility for the duration of employment plus five years and be available for inspection. The Class B operator must ensure that the department receives, no later than 30 days after the operator completes the training, a copy of the certificate of successful completion.

(h) An individual required to receive training as a Class C operator may obtain training from a facility's Class A or Class B operator, or training delivered over the Internet, if that program provides training in the areas listed in (e) of this section. If the Class C operator receives training from a facility's Class A or Class B operator, the Class A or Class B operator must keep at the facility a list, in checklist form, of the subjects presented and successfully completed. The checklist must include the signatures of the trainer and Class C operator, and must identify the date of training. If the Class C operator receives training delivered over the Internet, the Class A or Class B operator must keep at the facility a certificate, from the training provider, of successful completion of the training. Records must be kept at the facility for the duration of employment plus three years and be available for inspection. The department will maintain a list of Internet-delivered training programs that provide training in the areas listed in (e) of this section and a certificate of successful completion of training.

(i) A Class A or Class B operator must successfully complete operator training in accordance with this section no later than 30 days after being assigned to the position, except that

(1) an individual assigned to the position before July 25, 2012 must successfully complete the trainings before January 1, 2013.

(2) an individual is not required to successfully complete that training if the individual demonstrates, to the department's satisfaction, that the individual previously successfully completed

(A) training in accordance with this section for the operator classification for which the individual is now designated, or an examination that evaluates operator knowledge of areas listed in (c)(1) – (11) of this section or (d)(1) – (9) of this section, as appropriate for the operator classification for which the individual is now designated; or

(B) training or an examination in another state, if the department determines that the training or examination evaluates operator knowledge of areas listed in (c)(1) – (11) of this section or (d)(1) – (9) of this section, as appropriate for the operator classification for which the individual is now designated; the department will require additional training as necessary for the operator to comply with requirements of this chapter that are specific to this state.

(j) A Class C operator must successfully complete training before the individual is assigned to the position, except that an individual assigned to the position before July 25, 2012 must successfully complete the training before January 1, 2013.

(k) The department will require a Class A or Class B operator to repeat training no later than 30 days after the earlier of the date that the department determines a UST for which the operator is responsible to be out of compliance with this chapter or the date on which the UST failed a third-party inspection under 18 AAC 78.017. A Class C operator must repeat training annually. If a UST undergoes an upgrade or improvement, the department will require a Class A, Class B, or Class C operator to successfully complete refresher training in each area that pertains to the new equipment, as appropriate to the classification of the operator.

(l) A facility shall post, in an area easily accessible to a Class C operator, and next to the alarm panel if any is installed, emergency response procedures and emergency contact information in case of an alarm or release. (Eff. 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365

18 AAC 78.010. Minimum requirements. (a) A person who owns or operates a UST, or who intends to install, have installed, return to operation, or acquire ownership of a UST shall meet the requirements of 18 AAC 78.015. If the UST is closed, the owner or operator shall notify the department as required by 18 AAC 78.085(a).

(b) A person may not install a UST, including a UST described at 18 AAC 78.005(f), to store petroleum unless the UST, whether of single-wall or double-wall construction,

(1) will prevent a release caused by corrosion or structural failure for the operational life of the system;

(2) is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed to prevent the release or threatened release of stored petroleum; and

(3) is constructed or lined with a material that is compatible with the stored petroleum as provided at 18 AAC 78.050. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136)

Authority: AS 46.03.020 AS 46.03.365

18 AAC 78.015. Registration and fees. (a) Except as provided in (e) of this section, a person who owns or operates a UST, or who intends to install, have installed, return to service, or acquire ownership of a UST, shall

(1) register the UST as required by AS 46.03.380 and pay the fee required by AS 46.03.385 within 30 days after installation, return to service, or acquisition;

(2) if the UST was installed before December 22, 1988, provide the information required by AS 46.03.380(b)(1) and (3);

(3) obtain a current tag, decal, or notice for a UST under 18 AAC 78.017 before allowing a petroleum product to be placed in the UST;

(4) permanently affix the tag, decal, or notice described in (3) of this subsection where it

(A) can be easily be seen by a person who attempts to fill the UST; and

(B) cannot reasonably be associated with any UST other than the UST for which it was issued;

(5) ensure that a person does not

(A) tamper with or alter a tag, decal, or notice associated with a UST;

(B) remove a tag, decal, or notice associated with a UST until it expires or is replaced with a new tag, decal, or notice, unless

(i) the tank is permanently closed under 18 AAC 78.085; or

(ii) the return of the tag, decal, or notice is required under 18 AAC 78.017 or 18 AAC 78.020.

(b) The information required by AS 46.03.400 must be provided in the application for initial registration on a form provided by the department.

(c) UST registration expires on December 31 each year. The annual registration renewal fee required by AS 46.03.385(a) must be paid to the department at least 30 days before the registration expires each year and must be accompanied by the information required by AS 46.03.385(d) on a form provided by the department.

(d) If a UST is temporarily taken out of service, or if a UST is permanently closed under 18 AAC 78.085, the owner or operator need not submit the fee and information required under (c) of this section in subsequent years unless the UST is returned to service. The owner or operator of a UST temporarily taken out of service must submit to the department, before taking the UST out of service, the *Taken Out of Service or Temporary Closure* form, dated February 2008 and adopted by reference, and the *Empty Tank Affidavit* form, dated February 2008 and adopted by reference. If the UST is returned to service, the owner or operator shall pay to the department the annual registration fee required by AS 46.03.385(a) no later than 30 days after the UST is returned to service.

(e) The owner or operator of a UST that was taken out of service or permanently closed on or before January 1, 1974, is exempt from the annual registration requirements of this section and AS 46.03.380.

(f) In assessing the late fee required by AS 46.03.385(c), the "day of payment" means the day the fee is received by the department or, if mailed, the day of postmark.

(g) In addition to the requirements of AS 46.03.400, at initial registration or annual registration renewal, the owner or operator of a UST that is installed, upgraded, or reconfigured shall certify that the installation, upgrading, or reconfiguration was performed or supervised by a person certified under this chapter.

(h) An owner or operator of a UST who sells a UST intended for continued use as a UST shall notify the purchaser of the requirements of this chapter. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 8/15/99, Register 151; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority:	AS 46.03.020	AS 46.03.385	AS 46.03.405
	AS 46.03.365	AS 46.03.395	
	AS 46.03.375	AS 46.03.400	
	AS 46.03.380		

Editors 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 78.015. This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed AS 46.03.410.

The department's *Taken Out of Service or Temporary Closure* form and *Empty Tank Affidavit* form, adopted by reference in 18 AAC 78.015, are available from the department's

Anchorage office or on the department's website at the following Internet address:
<http://dec.alaska.gov/spar/guidance.htm#formust>.

18 AAC 78.017. Operations inspection. (a) Except as provided in (b) and (c) of this section, the owner or operator of a UST system shall have each UST inspected at least every three years to determine compliance with the release detection, spill and overfill prevention, and corrosion protection requirements of this chapter. Each inspection must be performed by an inspector who is certified under 18 AAC 78.410 and must include, as applicable, examination, assessment, testing, and documentation of the following for the UST system inspected:

- (1) equipment;
- (2) procedures;
- (3) operations;
- (4) maintenance;
- (5) recordkeeping.

(b) Unless another date is approved under (d) of this section, an initial inspection of each UST at the facility must occur no sooner than April 30 and no later than August 31 of the year specified in Table 1 of this subsection.

Last Digit of ADEC Facility ID Number	For UST registered on or before June 1, 2000	For UST registered after June 1, 2000
	Year Inspection due	Year Inspection Due
1	2000	The third calendar year after registration.
2	2000	
3	2000	
4	2000	
5	2001	
6	2001	
7	2001	
8	2002	
9	2002	
0	2002	

(c) For a UST facility with multiple registration dates, all USTs shall be inspected no later than the earliest applicable date in Table 1 of (b) of this section.

(d) In a geographic area of the state in which obtaining an inspection may cost more because an inspector does not routinely offer services in that area, two or more owners or operators may arrange for an inspector to inspect a group of USTs in that area at the same time. The inspection must be completed on or before the earliest applicable date in Table 1 of (b) of this section unless the department grants an extension. The department will grant an extension for a group of tanks under this subsection, upon request, if the department determines that an earlier date is not practicable. The department will not grant an extension beyond the last applicable date specified in Table 1 in (b) of this section for a facility in the group receiving the extension. The department will provide a temporary extension tag, decal, or notice for a UST that receives an extension under this subsection.

(e) An inspection is not required for a tank that is permanently out of service.

(f) The department will provide each new UST with a tag, decal, or notice no later than 30 days after receiving the registration. A tag will not be provided for a UST that is permanently closed under 18 AAC 78.085.

(g) A person performing an inspection must be a certified inspector under 18 AAC 78.410 and shall ensure that the inspection conforms to the requirements in 18 AAC 78.455(a)(5).

(h) No later than September 30 of the year the inspection is due, the inspector who performed the inspection of the UST system shall provide to the department the results of the inspection on a form provided by the department. The form must be signed by the certified inspector who conducted the inspection and the owner or operator of the UST system.

(i) A tag, decal, or notice expires on October 31 of the third year after issuance.

(j) Within 30 days after receiving a form under (i) of this section that indicates the UST system is in compliance with this chapter, the department will provide the owner or operator with a tag, decal, or notice to be affixed as required by 18 AAC 78.015(a).

(k) If, after inspection, the inspector finds that the UST system is not in compliance with this chapter,

(1) the department will consider the UST system to be a substandard UST until required are completed in accordance with 18 AAC 78.055;

(2) the inspector shall notify the owner or operator of non-compliance;

(3) no later than 10 days after the inspection was performed, the inspector shall submit the inspection report to the department;

(4) no later than 60 days after the inspection was performed, the owner or operator shall return the tag, decal, or notice for the UST system to the department, unless the required repairs have been completed in accordance with 18 AAC 78.055 and the department receives documentation of those repairs during the 60-day period; if repairs will take longer than 60 days, and upon receipt of a written request accompanied by detailed repair information and a schedule of repairs, the department may grant, under 18 AAC 78.018(c), a temporary deferral of any prohibition on the acceptance, delivery, or deposit of petroleum; and

(5) the UST system must be temporarily taken out of service no later than 90 days after the date of inspection, unless the department has granted a temporary deferral under (4) of this subsection and 18 AAC 78.018(c); a substandard UST must be permanently closed under 18 AAC 78.085 no later than 15 months after the date of inspection.

(l) Repealed 7/25/2012.

(m) If a tag, decal, or notice is lost, stolen, or destroyed, the owner or operator may obtain a replacement by providing the department with a sworn statement or affidavit that includes the facility number and tank number assigned by the department and an explanation of why a replacement is needed. (Eff. 8/15/99, Register 151; am 4/16/2000, Register 154; am 1/30/2003, Register 165; am 7/25/2012, Register 203; am 7/19/2013, Register 207)

Authority:	AS 46.03.020	AS 46.03.380	AS 46.03.400
	AS 46.03.365	AS 46.03.385	AS 46.03.405
	AS 46.03.375	AS 46.03.395	

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 78.017. This change reflects the enactment of sec. 2, ch. 102, SLA 2006, effective August 5, 2006, which repealed AS 46.03.410.

18 AAC 78.018. Acceptance, delivery, and deposit prohibitions. (a) An owner or operator of a UST may not accept the delivery or deposit of petroleum, and a person may not deliver petroleum to or deposit petroleum in that UST, if

(1) the department determines that the spill prevention equipment, overfill protection equipment, or corrosion protection equipment is not installed or is not being operated or maintained in accordance with this chapter;

(2) financial responsibility is not maintained in accordance with 18 AAC 78.910;

(3) the department has determined the UST to be a substandard UST under 18 AAC 78.017(k), the owner or operator has not made repairs as required under 18 AAC 78.017(k), and a temporary deferral of the prohibition on the acceptance, delivery, or deposit of petroleum has not been granted under 18 AAC 78.017 and (c) of this section or has expired; or

(4) the owner or operator fails to display a valid tag, decal, or notice as required under 18 AAC 78.015.

(b) If the department determines a UST to be subject to the prohibitions under (a) of this section, the department will, no later than three working days after making the determination,

(1) notify the owner or operator in writing; and

(2) to assist persons in complying with this section, post that UST to the department's list, maintained on the department's website, of USTs without valid tags, decals, or notices required under 18 AAC 78.015(a).

(c) If a prohibition under (a) of this section would jeopardize the availability of or access to motor fuel in remote and rural areas, or jeopardize the availability of or access to heating if the UST is supplying a boiler and an emergency power generator, the department may defer, upon written request by the owner, the prohibition for a period of no more than 180 days after the determination under (a) of this section is made.

(d) The department will withdraw a prohibition under (a) of this section upon receiving written documentation, satisfactory to the department, that

(1) the condition that caused the prohibition to be put into place has been repaired in accordance with 18 AAC 78.055; and

(2) the UST now meets the requirements of 18 AAC 78.040 – 18 AAC 78.070 and 18 AAC 78.910.

(e) If it withdraws a prohibition under (d) of this section, the department will, no later than three working days after the date of withdrawal,

(1) notify the owner or operator in writing; and

(2) remove the UST from the list maintained under (b)(2) of this section. (Eff. 7/25/2012, Register 203; am 7/19/2013, Register 207)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.405

Editor's note: The list described in 18 AAC 78.018 of USTs without valid tags, decals, or notices is available at the department's Anchorage office or on the department's website at the following Internet address: http://dec.alaska.gov/spar/ipp/ust/not_yet.asp.

18 AAC 78.020. Notification for tanks taken out of service. (a) The owner or operator of a UST installed or in service after January 1, 1974, and taken out of service after that date, shall notify the department that the UST was taken out of service by completing and returning a notification form available from the department. If a UST is permanently closed under 18 AAC 78.085, the owner or operator shall return, no later than 30 days after the UST is permanently closed, all tags issued to that UST.

(b) If the owner or operator of a UST that was closed between December 22, 1988, and September 5, 1990 reported the closure to the department as required by 40 C.F.R. 280.71 (1994), that closure notification fulfills the requirements of (a) of this section. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 7/25/2012, Register 203)

Authority: AS 46.03.020 Sec. 5, ch. 96, SLA 1990 Sec. 7, ch. 96, SLA 1990
AS 46.03.365

18 AAC 78.022. Requirements for existing UST systems. No later than December 22, 1998, all USTs shall comply with

(1) 18 AAC 78.025 for a new tank;

(2) 18 AAC 78.030 to upgrade a tank or tank system; or

(3) the permanent closure requirements of 18 AAC 78.085, including the applicable requirements for corrective action under 18 AAC 78.200 - 18 AAC 78.280. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136)

Authority: AS 46.03.020 AS 46.03.375 AS 46.03.395
AS 46.03.365

18 AAC 78.025. Requirements for new UST systems. (a) To prevent or detect a release caused by structural failure, corrosion, a spill, or an overflow while the UST is used to store petroleum, the owner or operator of a new UST shall meet the requirements of this section in addition to the requirements of 18 AAC 78.040 - 18 AAC 78.070.

(b) At least 15 days, but not more than 60 days, before beginning installation of a UST, the owner or operator shall notify the department in writing that it will do so, on a form provided by the department.

(c) Tanks, piping, and related UST equipment must be properly installed, using a nationally recognized code of practice listed in (f) of this section, in accordance with the manufacturer's recommended installation instructions. The owner or operator shall ensure that the installer of a new UST is certified under this chapter. All tanks, piping, and related UST equipment must be compatible with the fuels stored. The owner shall use one or more of the following methods to demonstrate compatibility:

(1) certification or listing by Underwriters Laboratories, Inc. for use with the fuel stored within the UST system;

(2) written approval from the manufacturer of the equipment or component; the written approval must

(A) include a positive statement of compatibility; and

(B) specify the range of ethanol or biodiesel blends with which the equipment or component is compatible.

(d) A person may not install or permit the installation of a UST within 100 feet of a community water system, non-transient non-community water system, or transient non-community water system, or within 75 feet of a Class C public water system, as those classes are defined under 18 AAC 80.1990(a).

(e) Any part of the tank or piping that is underground or in contact with the ground and that routinely contains petroleum must be protected from corrosion, using a nationally-recognized code of practice listed in (f) of this section. To protect the tank and piping from corrosion, the tank and piping must be constructed of

(1) fiberglass-reinforced plastic or another corrosion-resistant material;

(2) a steel-fiberglass-reinforced-plastic composite; or

(3) steel, galvanized steel, or, for piping only, copper; in addition, the tank and piping must be cathodically protected as follows:

(A) the tank and piping must be coated with a suitable dielectric material; for purposes of this subparagraph, "suitable" does not include paint or asphalt coating;

(B) field-installed cathodic protection systems must be designed by a corrosion expert and installed by a worker certified under 18 AAC 78.400 - 18 AAC 78.495;

(C) impressed current systems must be designed to allow inspection of their operating status as required by 18 AAC 78.045(e); and

(D) cathodic protection systems must be operated and maintained as required by 18 AAC 78.045.

(f) Unless the department approves another procedure, code, or standard found by the department to be no less protective of human health and safety and the environment than the procedures, codes, and standards set out in this subsection, the owner and the operator of a UST shall ensure that the following procedures, codes, and standards, the provisions of which are adopted by reference, are used:

(1) to meet the requirements of (c) of this section:

(A) American Petroleum Institute Recommended Practice 1615, *Installation of Underground Petroleum Storage Systems*, Fifth Edition, March 1996;

(B) Petroleum Equipment Institute Recommended Practice PEI/RP 100-11, *Recommended Practices for Installation of Underground Liquid Storage Systems*, 2011;

(C) American Society of Mechanical Engineers Code for Pressure Piping, B31, an American National Standard, B31.3, *Process Piping*, 2010 Edition;

(D) American Society of Mechanical Engineers Code for Pressure Piping, B31, an American National Standard, B31.4, *Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids*, 2009 Edition;

(E) National Fire Protection Association Standard 30, *Flammable and Combustible Liquids Code*, 2008 Edition; and

(F) National Fire Protection Association Standard 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*, 2012 Edition;

(G) International Code Council, *International Fire Code*, Chapter 57, (flammable and combustible Liquids), 2012; and

(H) International Code Council, *International Fire Code*, Chapter 50, (hazardous materials – general provisions), 2012;

(2) to meet the requirements of (e)(1) of this section for tanks constructed of fiberglass-reinforced plastic or another corrosion-resistant material:

(A) Underwriters Laboratories Standard 1316, *Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures*, Second Edition, 1994;

(B) repealed 1/30/2003;

(C) repealed 1/30/2003; and

(D) Steel Tank Institute Specification F894, ACT-100 *Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks*, December 2010;

(3) to meet the requirements of (e)(2) of this section for composite tanks:

(A) Underwriters Laboratories, Inc., Standard for Safety 1746, *External Corrosion Protection Systems for Steel Underground Storage Tanks*, Third Edition, January 17, 2007; and

(B) Steel Tank Institute Specification F894, ACT-100 *Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks*, December 2010;

(4) to meet the requirements of (e)(3) of this section for steel tanks:

(A) Steel Tank Institute Specification STI-P3, *STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks*, August 2011;

(B) Underwriters Laboratories, Inc., Standard for Safety 1746, *External Corrosion Protection Systems for Steel Underground Storage Tanks*, Third Edition, January 17, 2007;

(C) repealed 1/30/2003;

(D) National Association of Corrosion Engineers Standard RP0285-2002, *Standard Recommended Practice-Corrosion Control of Underground Storage Tank Systems by Cathodic Protection*, 2002;

(E) repealed 1/30/2003;

(F) Underwriters Laboratories Standard UL 58, *Steel Underground Tanks for Flammable and Combustible Liquids*, Ninth Edition, 1996;

(G) repealed 7/25/2012.

(5) to meet the requirements of (e)(1) of this section for piping constructed of fiberglass-reinforced plastic or another corrosion-resistant material:

(A) Underwriters Laboratories Standard 1316, *Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures*, Second Edition, 1994;

(B) Underwriters Laboratories, Inc. Standard for Safety UL 567, *Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Petroleum Products and LP-Gas*, Ninth Edition, July 28, 2003;

(C) repealed 1/30/2003;

(D) repealed 1/30/2003; and

(6) to meet the requirements of (e)(3) of this section for metal piping:

(A) National Fire Protection Association Standard 30, *Flammable and Combustible Liquids Code*, 2008 Edition;

(B) American Petroleum Institute Recommended Practice 1615, *Installation of Underground Petroleum Storage Systems*, Fifth Edition, March 1996;

(C) Petroleum Equipment Institute Recommended Practice PEI/RP 100-11, *Recommended Practices for Installation of Underground Liquid Storage Systems*, 2011;

(D) American Petroleum Institute Recommended Practice 1632, *Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems*, Third Edition, May 1996;

(E) National Association of Corrosion Engineers Standard SP0169-2007, *Standard Practice: Control of External Corrosion on Underground or Submerged Metallic Piping Systems*, reaffirmed March 15, 2007; and

(F) repealed 7/25/2012.

(g) The department may, inspect or require inspection of an installation to determine compliance with this section. If the department requires an inspection, it must be conducted by an independent third party certified under this chapter.

(h) The requirements of (i) of this section apply to

(1) a UST installed on or after July 25, 2012;

(2) a UST installed on or after July 25, 2012 to replace a UST;

(3) piping connected on or after July 25, 2012 to a UST described in (1) or (2) of this subsection; or

(4) piping replaced on or after July 25, 2012 for a UST.

(i) If a UST or piping described in (h) of this section is within 1,000 feet of an existing community water system as defined under 18 AAC 80.1990(a), an existing potable water system

as defined under 18 AAC 80.1990(a), or a sole-source aquifer as defined under 18 AAC 75.990, the department will require secondary containment and interstitial monitoring for leaks. A facility that will install a potable drinking water well as part of the facility shall meet the requirements of this subsection regardless of whether the UST or well will be installed first. For purposes of this subsection,

(1) the 1,000 feet must be measured from the closest part of the UST or piping to the closest part of the existing community water system, potable water system, or sole source aquifer, including well heads for groundwater, the location of the intake points for surface water, water lines, processing tanks and water storage tanks, water distribution and service lines under the control of the community water system operator, and the wellhead of the nearest existing potable drinking water well;

(2) if the UST is installed on or after July 25, 2012, does not replace a UST, and consists of one or more USTs connected by piping, the requirements of this subsection apply to all of the USTs and piping;

(3) if the UST or piping replaces a UST or piping connected to a UST, the requirements of this subsection apply only to the specific UST or piping being replaced.

(j) Under-dispenser containment is required for a petroleum dispenser system installed on or after July 25, 2012, or for a petroleum dispenser system installed on or after July 25, 2012 to replace an existing dispenser, if any of the piping or equipment below the dispenser is replaced. Under-dispenser containment must be liquid-tight, must be compatible with the substance conveyed by the piping, and must

(1) allow for visual inspection and access to the components in the containment system; or

(2) be monitored.

(k) A secondary containment system installed in accordance with (i) of this section must be

(1) designed, constructed and installed to

(A) contain petroleum released from anywhere in the UST system until the release is detected and the petroleum removed; and

(B) prevent a release of petroleum to the environment at any time during the operational life of the UST system; and

(2) checked for evidence of a release at least every 30 days.

(Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 4/16/2000, Register 154; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's Note: 1. The publications adopted by reference in 18 AAC 78.025 and other sections of this chapter may be reviewed at the department's office in Anchorage or may be obtained directly from the appropriate publisher. The mailing address, telephone number, facsimile number, and website, if available, for each publisher are as follows:

American Petroleum Institute (API), Publications Department, 1220 L St. N.W., Washington, D.C. 20005; telephone: (202) 682-8375; facsimile: (202) 962-4776; Internet address: <http://global.ihs.com/?RID=API1>;

American Society of Mechanical Engineers (ASME), P.O. Box 2300, Fairfield, New Jersey 07007-2300; telephone: (800) 843-2763; facsimile: (201) 882-1717; Internet address: <http://www.asme.org/>;

American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959; telephone: (610) 832-9585; facsimile: (610) 832-9555; Internet address: <http://www.astm.org> ;

International Code Council, 4501 West Flossmoor Road, Country Club Hills, IL 60478; telephone: (800) 786-4452; facsimile: (866) 891-1695; Internet address: <http://iccsafe.org/store>;

International Conference of Building Code Officials, Ordering Department, 5360 Workman Mill Road, Whittier, California 90601; telephone: (310) 692-4226; facsimile: (310) 692-3853; Internet address: <http://www.icbo.org/>;

National Association of Corrosion Engineers (NACE), Publications Department, 1440 South Creek Drive, Houston, Texas 77218-8340; telephone: (281) 228-6200 or (800) 797-6223; facsimile: (281) 228-6300; Internet address: <http://www.nace.org/>;

National Fire Protection Association, Inc. (NFPA), Publications Department, 11 Tracy Dr., Avon, MA 02322; telephone: (800) 344-3555; facsimile: (800) 593-6327; Internet address: <http://www.nfpa.org/>;

National Leak Prevention Association (NLPA), P.O. Box 1643, Boise, Idaho 83701; telephone: (815) 301-2785; facsimile: (240) 757-0211; Internet address: <http://www.nlpa-online.org>;

Petroleum Equipment Institute (PEI), Publications Department, P.O. Box 2380, Tulsa, Oklahoma 74101; telephone: (918) 494-9696; facsimile: (918) 491-9895; Internet address: <http://www.pei.org/>;

Steel Tank Institute (STI), 944 Donata Court, Lake Zurich, Illinois 60047; telephone: (847) 438-8265; facsimile: (847) 438-8766; Internet address: <http://www.steeltank.com/>;

Underwriters Laboratories, Inc. (UL), COMM 2000, 151 Eastern Ave., Bensenville, IL 60106; telephone: (888) 853-3503; Internet address: <http://ulstandardsinonet.ul.com> ;

2. In addition to the organizations listed in Note 1, above, other sources of nationally-recognized codes of practice include:

American National Standards Institute (ANSI), Customer Service Department, 25 West 43rd Street, 4th Floor, New York, NY 10036; telephone: (212) 642-4980; facsimile: (212) 392-1286; Internet address: <http://www.ansi.org/>;

Fiberglass Petroleum Tank & Pipe Institute, 11150 South Wilcrest Drive, Suite 101, Houston, TX 77099-4343; Internet address: <http://www.fiberglasstankandpipe.com/>;

United States Department of Labor, Occupational Safety and Health Administration (OSHA), Publication Office, Francis Perkins Building, 200 Constitution Avenue, NW, Room N-3101, Washington, D.C. 20210; telephone: (202) 693-1888; facsimile: (202) 693-2498; Internet address: <http://www.osha.gov/>.

3. A UST installed in an area that has been given a special designation for drinking water protection by a local government may be subject to additional requirements imposed by the local government.

18 AAC 78.030. Requirements to upgrade a UST system. (a) A person who upgrades a UST shall meet the

- (1) requirements of this section;
- (2) spill and overfill control requirements of 18 AAC 78.040; and
- (3) applicable requirements of 18 AAC 78.060 - 18 AAC 78.070.

(b) A UST that requires upgrading may be upgraded only by a person certified under this chapter and must be installed using nationally recognized codes of practice specified in 18 AAC 78.025(e). All parts of the UST system must be certified, listed, or approved under 18 AAC 78.025(c) for use with the fuel stored within the system.

(c) Metal piping that routinely contains petroleum and that is in contact with the ground must be cathodically protected using nationally-recognized codes of practice specified in 18 AAC 78.025(f)(6) and must meet the requirements of 18 AAC 78.025(e)(3)(B) - (D).

(d) Steel tanks must be upgraded to meet one of the following requirements, using a nationally-recognized code of practice as specified in 18 AAC 78.025 and 18 AAC 78.055:

- (1) a tank may be upgraded by internal lining if
 - (A) the lining is installed as required by 18 AAC 78.055(c);
 - (B) the internal lining or lining system used is specifically designed for that purpose, is compatible with the product stored, and meets applicable national standards specified in 18 AAC 78.055(c);

(C) a certified copy of the internal lining or lining system specifications and installation instructions, safety precautions, and other documentation is provided to the department by the manufacturer, including

(i) approvals by independent testing laboratories and other independent evaluation results that indicate compliance with the approved standards;

(ii) approvals by other government agencies;

(iii) chemical compatibility data for common fuels; and

(iv) copies of guarantees or warranties; and

(D) within 10 years after lining, and every five years after that, the lined tank is internally inspected and found to be structurally sound, with the lining still performing in accordance with the original design specifications;

(2) a tank may be upgraded by cathodic protection if the

(A) cathodic protection system complies with 18 AAC 78.025(e)(3)(B) - (D); and

(B) the integrity of the tank is ensured by using one of the following methods:

(i) the tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes before installing the cathodic protection system;

(ii) the tank has been installed for less than 10 years and is monitored monthly for releases using a method specified in 18 AAC 78.065(e)-(j);

(iii) the tank has been installed for less than 10 years and is assessed for corrosion holes by conducting two tightness tests that meet the requirements of 18 AAC 78.065(d); the first test must be conducted before installing the cathodic protection system, and the second test must be conducted between three and six months after the first operation of the cathodic protection system; or

(iv) the tank is assessed for corrosion holes by a method that is found by the department to prevent releases in a way that is no less protective of human health and safety and the environment than (i) - (iii) of this subparagraph; or

(3) a tank may be upgraded by internal lining combined with cathodic protection if

(A) the lining is installed as required by 18 AAC 78.055(c); and

(B) the cathodic protection complies with 18 AAC 78.025(e)(3)(B)-(D);

(4) a STI-P3 steel tank may be upgraded to cathodic protection if the

(A) tank can be verified by the Steel Tank Institute to have been constructed in accordance with Steel Tank Institute Specification STI-P3, *STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks*, adopted by reference in 18 AAC 78.025(f); and

(B) upgrade is performed by a person certified under this chapter in UST installation.

(e) The department may inspect or require inspection of an upgrade to determine compliance with this section. If the department requires an inspection, it must be conducted by an independent third party certified under this chapter.

(f) If an upgrade consists of the removal and installation of a UST, or the removal and installation within a three-year period of more than 50 percent of the piping associated with a single UST, the department will consider the upgrade to be a replacement subject to the requirements of 18 AAC 78.025(i) – (k). (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 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.035. Changes in configuration of system. An owner or operator who intends to significantly reconfigure a UST shall notify the department at least 15 days, but not more than 60 days before beginning work on the proposed change, using a form provided by the department. (Eff. 3/25/91, Register 118)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.390

18 AAC 78.040. Spill and overflow control. (a) To prevent spilling and overflowing associated with transfer of petroleum to a UST, the owner or operator of a UST system shall, subject to (e) of this section, use the following spill and overflow prevention equipment:

(1) spill prevention equipment, such as a spill catchment basin, that will prevent release of the petroleum to the environment when the transfer hose is detached from the fill pipe; and

(2) overflow prevention equipment that will

(A) automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or by triggering a high-level alarm.

(b) The owner or operator shall ensure that

(1) a release due to spilling or overfilling does not occur;

(2) the volume available in the tank is greater than the volume of petroleum to be transferred to the tank before the transfer is made;

(3) the transfer operation is constantly monitored to prevent overfilling or spilling;

(4) the distributor is provided with the current UST tag, decal, or notice before the transfer is made; and

(5) any spill or overfill is reported and investigated, and that appropriate corrective action is completed.

(c) The owner or operator is not required to use the spill and overfill prevention equipment specified in (a) of this section if

(1) alternative equipment is used that, in the department's judgment, is no less protective of human health and safety and the environment than the equipment specified in (a) of this section; or

(2) the UST is filled by transfers of no more than 25 gallons at one time.

(d) The owner or operator shall report, investigate, and complete corrective action on a spill or overfill as required by 18 AAC 78.200 - 18 AAC 78.276.

(e) If a UST system has one or more of the following, the owner or operator of the system shall not use a ball float valve or a vent restrictor shut-off device on that system:

(1) a tank that receives a pumped delivery;

(2) suction piping with air eliminators;

(3) remote fill pipes and gauge openings;

(4) an emergency generator or an oil heating tank.

(f) To satisfy the recordkeeping requirements of 18 AAC 78.100(f), the owner or operator may maintain a log to show compliance with the requirements of this section for each transfer

operation. The owner or operator may use a log form provided by the department or an equivalent form. The department's log form calls for the following information:

- (1) the facility name and ID number;
- (2) the product type, distributor name, and transfer personnel;
- (3) the date and time of the transfer;
- (4) the tank number, tank contents, and tank size;
- (5) amount of fuel in tank before delivery;
- (6) amount of ullage before delivery;
- (7) amount delivered; and
- (8) information relating to any spill or overfill that may have occurred during the transfer.

(g) In this section, "ullage" means the volume of the space between the product level in a tank and the top of the tank, expressed in gallons. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am 1/30/2003, Register 165)

Authority: AS 46.03.020 AS 46.03.380 AS 46.03.405
AS 46.03.365

Editor's note: To assist in meeting the requirements of 18 AAC 78.040, the transfer procedures in the National Fire Protection Association Publication 385 may be used as guidance. Further guidance on spill and overfill prevention appears in American Petroleum Institute Publication 1621, *Recommended Practice for Bulk Liquid Stock Control at Retail Outlets*, and National Fire Protection Association Standard 30, *Flammable and Combustible Liquids Code*. A copy of each document is available for review at the department's Anchorage, Fairbanks, Juneau, or Soldotna offices, or may be obtained from the appropriate publisher at the address listed in the editor's note at 18 AAC 78.025.

18 AAC 78.045. Operation and maintenance of corrosion protection. (a) The owner or operator of a steel UST with corrosion protection shall meet the requirements of this section to ensure that a release caused by corrosion is prevented while the system is used to store petroleum.

(b) A corrosion protection system must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contains petroleum and that is in contact with the ground. This requirement applies to single and double wall steel tanks and piping.

(c) A UST with a cathodic protection system must be inspected for proper operation by a cathodic protection tester who is certified under 18 AAC 78.410. An inspection under this subsection must be conducted as follows:

(1) a cathodic protection system must be tested within six months after installation and at least every three years after that, or according to another reasonable testing schedule approved by the department; and

(2) the criteria used to determine if cathodic protection is adequate under this section must be in accordance with the National Association of Corrosion Engineers Standard RP0285-2002, *Standard Recommended Practice-Corrosion Control of Underground Storage Tank Systems by Cathodic Protection*, 2002, adopted by reference in 18 AAC 78.025(f).

(d) The department will, in its discretion, approve a standard other than that specified in (c)(2) of this section if the department finds it to be no less protective of human health, safety, and the environment than the standard specified.

(e) A UST with an impressed current cathodic protection system must be inspected every 60 days to ensure that the equipment is running properly. The owner or operator shall document the findings of each inspection. The owner or operator may use a form provided by the department or an equivalent form to document those findings. If the inspection of the impressed current cathodic protection system indicates a redline of zero, the owner or operator shall notify the department and take corrective action to investigate and, if necessary, to correct the problem.

(f) As required by 18 AAC 78.100(f), the owner or operator of a UST with cathodic protection shall keep records of the operation of the cathodic protection system which are sufficient to demonstrate compliance with the performance standards set out in this section, including the results of

(1) the last three inspections required in (e) of this section; or

(2) testing from the last two inspections required in (c) of this section. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: Information about how to review or obtain a copy of the document referred to in 18 AAC 78.045 is in the editor's note at 18 AAC 78.025.

18 AAC 78.050. Compatibility. (a) A UST must be made of or lined with material that is compatible with the petroleum stored in the system. An owner or operator storing alcohol blends may use the following codes to comply with the requirements of this subsection:

(1) the American Petroleum Institute Recommended Practice 1626, *Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations*,

2nd Edition August 2010, Errata February 2011, the provisions of which are adopted by reference; or

(2) the American Petroleum Institute Recommended Practice 1627, *Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations*, August 1986, reaffirmed January 18, 2000, the provisions of which are adopted by reference.

(b) The department will, in its discretion, approve a standard or code other than those specified in (a) of this section if the department finds it to be no less protective of human health, safety, and the environment than the standards specified.

(c) For purposes of this section, "compatible" means that the UST, and any UST lining, is designed to prevent the release or threatened release of the stored substance. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365

Editor's note: The publications adopted by reference in 18 AAC 78.050 are available for review at the department's Anchorage office, or a copy may be obtained from the appropriate publisher at the address listed in the editor's note at 18 AAC 78.025.

18 AAC 78.055. Repairs allowed. (a) The owner or operator of a UST shall ensure that any repairs to the UST will prevent a release caused by structural failure or corrosion while the UST is used to store petroleum. Repairs must meet the following requirements:

(1) repairs must be conducted using a nationally-recognized code of practice and must be conducted by a person certified under this chapter;

(2) repairs to tanks constructed of fiberglass-reinforced plastic or another corrosion-resistant material must be made by the manufacturer's authorized representative;

(3) metal pipe sections and fittings that have released petroleum as a result of corrosion or other damage must be replaced;

(4) pipes and fittings constructed of fiberglass-reinforced plastic or another corrosion-resistant material must be repaired as specified by the manufacturer;

(5) repaired tanks and piping must be tightness tested as required by 18 AAC 78.065(d) and 18 AAC 78.070(c) within 30 days after repairs are complete and before being placed back in operation, unless the repaired

(A) tank is internally inspected, using a nationally-recognized code of practice; and

(B) portion of the UST is monitored monthly for releases, using a method specified in 18 AAC 78.065(e)-(j); and

(6) within six months after the repair of a cathodically protected UST, the cathodic protection system must be tested as required by 18 AAC 78.045(c) and (e) to ensure that it is operating properly.

(b) As required by 18 AAC 78.100, the owner or operator shall keep records of each repair made under this section for the remaining operating life of the system.

(c) Unless the department approves another procedure, code, or standard found by the department to be no less protective of human health and safety and the environment than the procedures, codes, and standards set out in this subsection, the owner or operator shall use the following procedures, codes, and standards, the provisions of which are adopted by reference, to meet the requirements of (a) of this section:

(1) National Fire Protection Association Standard 30, *Flammable and Combustible Liquids Code*, 2008 Edition;

(2) American Petroleum Institute Recommended Practice 2200, *Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines*, Fourth Edition, September 2010;

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

(4) National Leak Prevention Association Standard 631, Chapters A, B, and C, *Entry, Cleaning, Interior Inspection, Repair and Lining of Underground Storage Tanks*, 1991.

(d) For purposes of this section, after a release has occurred, "repair"

(1) means to correct or restore a UST, or any part of a UST, that routinely contains petroleum, including repairs to the tank vessel, pipes, valves, fillpipes, or vents;

(2) does not include routine maintenance; for purposes of this paragraph, "routine maintenance" means the normal operational upkeep to prevent a UST system from releasing product. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: Information about how to review or obtain a copy of the publications adopted by reference in 18 AAC 78.055 is in the editor's note at 18 AAC 78.025.

18 AAC 78.060. Release detection and reporting. (a) Except for a UST used solely to fuel an emergency power generator, the owner or operator of a new or existing UST shall

provide a method, or combination of methods, of release detection described at 18 AAC 78.065 and 18 AAC 78.070 that

(1) can detect a release from any part of the tank, including the connected underground piping, that routinely contains petroleum;

(2) is installed, calibrated, operated, and maintained according to the manufacturer's instructions, including routine maintenance and service checks for operability or running condition;

(3) meets the performance requirements in 18 AAC 78.065 or 18 AAC 78.070, with any performance claims and the manner of determination described in writing by the equipment manufacturer or installer; and

(4) is capable of detecting a leak as specified at 18 AAC 78.065(c), (d), (e), (i), or (j) or 18 AAC 78.070(b), (c), or (d) with a probability of detection of 95 percent and a probability of false alarm of five percent, if the method is used after December 22, 1990; this paragraph does not apply to a method permanently installed before December 22, 1990.

(b) When a release detection method indicates a release may have occurred, the owner or operator shall notify the department as required by 18 AAC 78.200(a).

(c) repealed 11/3/95.

(d) The owner or operator of an existing UST who cannot apply a method of release detection meeting the requirements of this section shall permanently close the UST in accordance with 18 AAC 78.085. (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 AS 46.03.395

18 AAC 78.065. Release detection methods and monitoring for tanks. (a) Each method of release detection for tanks that is used to meet the requirements of 18 AAC 78.060 and 18 AAC 78.070 must meet the requirements of this section. Using one method or a combination of the methods listed in this section, an owner or operator shall monitor each tank for releases at least once every 30 days.

(b) **Inventory Control.** Inventory control must be capable of detecting a release of at least 1.0 percent of flow-through plus 130 gallons monthly. Inventory control must be conducted monthly as follows:

(1) inventory volume measurements are recorded each operating day for petroleum

(A) inputs;

(B) withdrawals; and

(C) amount remaining in the tank;

(2) the equipment used is capable of measuring the level of petroleum over the full range of the tank's height to the nearest one-eighth of an inch;

(3) at the time of delivery, inputs of petroleum are reconciled with delivery receipts, by measurement of the tank inventory volume before and after delivery;

(4) deliveries are made through a drop tube that extends to within one foot of the tank bottom;

(5) dispensing is metered and recorded within state standards for meter calibration;

(6) at least once a month, the measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch; and

(7) the information generated under this subsection must be reviewed and analyzed monthly by the owner or operator.

(c) **Manual Tank Gauging.** Manual tank gauging as a release detection method may be used in the following circumstances:

(1) for tanks of 1,000 gallons or less nominal capacity, only if

(A) tank liquid level measurements are taken at the beginning and end of a time period set out in Table A of this subsection, during which no liquid is added to or removed from the tank;

(B) level measurements are based on the average of two consecutive stick readings at the beginning and the end of the appropriate period in Table A;

(C) the equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch; and

(D) testing is conducted at least once each week, and the four weekly results are averaged to obtain a monthly result; if the variation between the beginning and ending measurements exceeds the weekly or monthly standards in Table A, a leak is suspected, and the owner or operator is subject to 18 AAC 78.200 - 18 AAC 78.280;

TABLE A

Nominal Tank Capacity and Dimensions	Weekly Standard (one test)	Monthly Standard (average of four tests)	Minimum Test Duration
550 gallons or less	10 gallons	5 gallons	36 hours
551-999 gallons	13 gallons	7 gallons	36 hours
1,000 gallons (64" X 73")	9 gallons	4 gallons	44 hours
1,000 gallons (48" X 128")	12 gallons	6 gallons	58 hours
1,001 - 2,000 gallons	26 gallons	13 gallons	36 hours

(2) for tanks of 1,001 - 2,000 gallons nominal capacity in combination with tank tightness testing under (d) of this section, instead of monthly inventory control; and

(3) for tanks of greater than 2,000 gallons nominal capacity, never.

(d) **Tank Tightness Testing.** Tank tightness testing, or another test of equal performance, must be capable of detecting a 0.1 gallon per hour leak rate from any part of a tank, including the associated piping, that routinely contains petroleum, while accounting for the effects of thermal expansion or contraction of the petroleum, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table. To satisfy the requirements of this subsection, the owner or operator may use only tank tightness tests that have been developed and reviewed by a nationally-recognized association or third-party testing laboratory and that meet or exceed the criteria for the detection of leaks set out in the United States Environmental Protection Agency's manuals *Standard Test Procedures for Evaluating Leak Detection Methods: Volumetric Tank Tightness Testing Methods*, March 1990 (EPA/530/UST-90/004), and *Standard Test Procedures for Evaluating Leak Detection Methods: Nonvolumetric Tank Tightness Testing Methods*, March 1990 (EPA/530/UST-90/005), the provisions of which are adopted by reference. The tests required by this subsection must be performed by a person certified under this chapter. The owner or operator shall submit to the department a certified copy of the evaluation results indicating that the criteria have been met or exceeded and a copy of the manufacturer's test protocol. An owner or operator may use tank tightness testing only if the UST meets the performance standards set out in 18 AAC 78.025 or 18 AAC 78.030 and the owner or operator complies with the monthly inventory control requirements set out in (b) of this section or the manual tank gauging requirements set out in (c) of this section. If tank tightness testing is used, the test must be conducted every five years for ten years after the tank is installed or upgraded, whichever is later. The department may disapprove a tank tightness test or testing system under this subsection if the

(1) test or testing system fails to disclose leaks that fall within the boundaries of the criteria stated in this subsection; or

(2) tester is not certified by the manufacturer of the test or testing system.

(e) **Automatic Tank Gauging.** Equipment for automatic tank gauging that tests for the loss of petroleum or that conducts inventory control must be capable of detecting

(1) a 0.2 gallon per hour leak rate from any part of the tank that routinely contains petroleum; and

(2) a release of 150 gallons within a 30-day period, with a probability of detection of 95 percent and a probability of false alarm of five percent.

(f) **Soil Gas Vapor Monitoring.** Vapor monitoring may be used only at certain sites and only with department approval. The department will, in its discretion, approve the testing or monitoring of soil gas vapors in the excavation zone if the following requirements are met:

(1) material used as backfill is sufficiently porous to readily allow diffusion of vapors from a release into the excavation area; for purposes of this paragraph, gravel, sand, or crushed rock are "sufficiently porous" materials;

(2) the stored petroleum, or a tracer compound placed in the tank system, is sufficiently volatile to result in a vapor level that is detectable by the monitoring devices located in the excavation zone if a release from the tank occurs; for purposes of this paragraph, gasoline is "sufficiently volatile;"

(3) the measurement of vapors by the monitoring device is not rendered inoperative by groundwater, rainfall, soil moisture, other local climatological, geologic, or hydrogeologic conditions, or other known interference so that a release could go undetected for more than 30 days;

(4) the level of background contamination in the excavation zone will not interfere with the method used to detect a release from the tank;

(5) the vapor monitors are designed and operated to detect any significant increase in concentration above background of

(A) petroleum stored in the tank system;

(B) a component or components of the petroleum; or

(C) a tracer compound placed in the tank system;

(6) the UST excavation zone is assessed as required by 18 AAC 78.090 to

(A) ensure compliance with (1) - (4) of this subsection; and

(B) establish the number and positioning of observation wells that will detect a release within the excavation zone from any part of a tank that routinely contains petroleum; and

(7) observation wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) **Groundwater Monitoring.** Groundwater monitoring may be used only if the groundwater is never more than 20 feet from the ground surface and only with department approval.

(h) **Interstitial Monitoring.** Interstitial monitoring between the UST or pipe and a secondary barrier immediately around or beneath the UST or pipe may be used only if the system

(1) is designed, constructed, and installed to detect a leak from any part of a tank or pipe that routinely contains petroleum; and

(2) meets one of the following requirements:

(A) for a double-walled UST, including piping, the sampling or testing method is capable of detecting a release through the inner wall in any part of a tank or pipe that routinely contains petroleum;

(B) for a UST with a secondary barrier within the excavation zone, the sampling or testing method used is capable of detecting a release between the UST and the secondary barrier as follows:

(i) the secondary barrier around or beneath the UST consists of artificially constructed material that is sufficiently thick and impermeable to direct a release to the monitoring point and permit its detection; for purposes of this clause, "sufficiently thick and impermeable" means having a permeability of at least 10^{-6} cm/sec for the petroleum stored;

(ii) the barrier is compatible with the petroleum stored so that a release from the UST will not cause a deterioration of the barrier and allow a release to pass through undetected;

(iii) for a cathodically protected tank, the secondary barrier must be installed so that it does not interfere with proper operation of the cathodic protection system;

(iv) groundwater, soil moisture, or rainfall will not render the testing or sampling method inoperative so that a release could go undetected for more than 30 days;

(v) the site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year floodplain, unless the barrier and monitoring designs are for use under those conditions; and

(vi) monitoring wells are clearly marked and secured to avoid unauthorized access and tampering; or

(C) for a tank with an internally fitted liner, an automated device is capable of detecting a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(i) **Statistical Inventory Reconciliation.** Statistical inventory reconciliation methods that analyze inventory records for the loss of petroleum and that are intended as a release detection method must meet the following requirements:

(1) the statistical analysis must be capable of detecting a 0.2 gallon per hour leak rate from any part of the tank that routinely contains petroleum; and

(2) the collection of inventory data must meet the requirements of (b) of this section.

(j) **Other Methods.** Any other type of release detection method, or combination of such other methods, may be used with prior approval, if the method or combination of methods can, for volumetric release detection methods, detect a 0.2 gallon per hour leak rate or a release of 150 gallons in a 30-day period with a probability of detection of 95 percent and a probability of a false alarm of five percent. For non-volumetric release detection methods, the department may approve another method of release detection not described in (d) – (i) of this section, if the owner or operator shows that the method can detect a release as effectively as any of the methods allowed in (d) - (i) of this section. In comparing methods, the department will consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner or operator shall comply with any conditions imposed by the department on its use to ensure the protection of human health and safety and the environment.

(k) **Certification of performance standards.** The National Work Group on Leak Detection Evaluations' *List of Leak Detection Evaluations for Underground Storage Tank (UST) Systems*, 17th Edition, January 11, 2010, shall be used to determine compliance with the applicable performance standards for automatic tank gauging, statistical inventory reconciliation, tightness testing, electronic interstitial monitoring, and automatic line leak detectors. The *List of Leak Detection Evaluations for Underground Storage Tank (UST) Systems*, 17th Edition, January 11, 2010, is adopted by reference. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 6/25/99, Register 150; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: 1. Practices described in the American Petroleum Institute Recommended Practice 1621, *Bulk Liquid Stock Control at Retail Outlets*, Fifth Edition, May 1993, may be used, if applicable, as guidance in meeting the requirements of (b)(6) of this section.

2. The provisions outlined in the Steel Tank Institute's *Standard for Dual Wall Underground Steel Storage Tanks*, F841, revised January 2006, may be used as guidance for aspects of the design and construction of underground steel double-walled tanks as described in (h)(2)(A) of this section.

3. The National Work Group on Leak Detection Evaluation's *List of Leak Detection Evaluations for Underground Storage Tank (UST) Systems*, 17th Edition, January 11, 2010, adopted by reference in 18 AAC 78.065, may be reviewed at the Department of Environmental Conservation's office in Anchorage or may be obtained on the Internet at <http://www.nwglde.org>.

4. The tank tightness testing documents referred to in Notes 1 and 2 are on file in the Office of the Lieutenant Governor and 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.

5. The United States Environmental Protection Agency tank tightness testing documents referred to in 18 AAC 78.065(d) may be reviewed at the Department of Environmental Conservation's office in Anchorage or may be obtained from:

United States Environmental Protection Agency (EPA), Office of Underground Storage Tanks, 1200 Pennsylvania Ave., NW, Mail Code 5401P, Washington, D.C. 20460; telephone: (703) 603-9900; Internet address: <http://www.epa.gov/>;

United States Government Bookstore, 717 North Capitol St. NW, Washington, D.C. 20401; telephone: (866) 512-1800; facsimile: (202) 512-2104; Internet address: <http://bookstore.gpo.gov/>.

18 AAC 78.070. Release detection methods and monitoring for piping. (a) Each method of release detection for piping used to meet the requirements of 18 AAC 78.060 and 18 AAC 78.065 must be conducted as required by this section. Pressurized piping must meet the applicable requirements set out either in (b) and (c) of this section or in (b) and (d) of this section. Suction piping must meet the applicable requirements set out in (c) of this section and, if applicable, (d) of this section.

(b) **Automatic line leak detection.** An automatic leak detection method that alerts the operator to the presence of a leak by restricting or shutting off the flow of petroleum through piping or by triggering an audible or visual alarm may be used only if that method is capable of detecting a leak of three gallons per hour at 10 pounds per square inch line pressure within one hour. An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements. A stand-alone sump sensor is not sufficient to meet this requirement.

(c) **Line tightness testing.** A tightness test of piping may be conducted only if the tightness test is capable of detecting a 0.1 gallon per hour leak rate at one and one-half times the line's normal operating pressure. The test must be performed by a person certified under this chapter. Where a line leak detector is installed on the piping that has the same leak detection capability as the tightness test specified in 18 AAC 78.065(d), the tightness test may be omitted. Except as otherwise permitted under (d) of this section, if pressurized piping is used, the line tightness test must be conducted annually, and if underground piping that conveys petroleum under suction is used, the line tightness test must be conducted at least every three years. However, no release detection is required for suction piping designed and constructed to meet the following standards:

(1) the below-grade piping operates at less than atmospheric pressure and is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(2) only one check valve is included in each suction line;

(3) the check valve is located directly below and as close as practical to the suction pump; and

(4) a means is provided to readily determine that (1) – (3) of this subsection are satisfied.

(d) Notwithstanding the requirements of (c) of this section, any monitoring method set out in 18 AAC 78.065(f) - (j) may be used if that method is designed to detect a release from any part of the underground piping that routinely contains petroleum and that method is used monthly. (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 AS 46.03.375

18 AAC 78.075. Release detection monitoring requirements. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/30/2003, Register 165)

18 AAC 78.080. Temporary closure. (a) If a UST is temporarily closed, an owner or operator shall notify the department on a form supplies by the department, and if required to install corrosion protection and release detection equipment under this chapter shall continue operation and maintenance of that equipment during temporary closure.

(b) If a release is suspected or confirmed during the temporary closure, the applicable requirements of 18 AAC 78.200 - 18 AAC 78.280 must be met.

(c) Release detection is not required if the UST is taken out of service and the owner or operator submits to the department an *Empty Tank Affidavit* form, adopted by reference in 18 AAC 78.015(d).

(d) If a UST is temporarily closed for three months or longer, the owner or operator shall

- (1) leave vent lines open and functioning; and
- (2) cap and secure all other lines, pumps, manways, and ancillary equipment.

(e) A substandard UST may be temporarily closed or temporarily taken out of service for more than 12 months only with department approval. The department may grant approval under this subsection only if

(1) the UST meets the performance standards in 18 AAC 78.025 for a new UST, or the upgrading requirements of 18 AAC 78.030, except that the spill and overflow equipment requirements of 18 AAC 78.030(a) need not be met; and

(2) a site assessment is completed as required by 18 AAC 78.090.

(f) Unless the department has approved temporary closure or temporarily taken out of service for more than 12 months under (e) of this section, the owner or operator shall

(1) after 12 months permanently close a substandard UST as required by 18 AAC 78.085; and

(2) complete a site assessment as required by 18 AAC 78.090.

(g) No person may use temporary closure to avoid the upgrading requirements of 18 AAC 78.030.

(h) The owner or operator of a UST that is temporarily closed on a seasonal basis, because of weather or other seasonal conditions, may apply to the department for a waiver under this section. No waiver will be granted for the requirements of (b) or (d) of this section.

(i) An owner or operator of a UST that is temporarily closed or temporarily taken out of service shall maintain financial responsibility as required in 18 AAC 78.910. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.085. Permanent closure and change-in-service. (a) At least 15 days, but not more than 60 days, before beginning permanent closure under (c) of this section or a change-in-service under (d) of this section, the owner or operator shall notify the department, in writing, on a form provided by the department. The department will waive the minimum 15-day notification period if the owner or operator demonstrates that meeting the notification deadline would prevent the project from being completed or would be detrimental to human health or safety or to the environment. The owner or operator shall report a change in the stated date of closure or change-in-service to the department office in Anchorage at least three days before the scheduled closure or change-in-service. If closure does not occur within 60 days after the date given in the notice, the owner or operator shall submit a new notice to the department, indicating the actual closure date. The requirements of this subsection do not apply if

(1) the closure or change-in-service is in response to corrective action under 18 AAC 78.200 - 18 AAC 78.240; in that case, notification is as specified in 18 AAC 78.200 - 18 AAC 78.240; or

(2) a UST is taken out of service or closed because of an emergency; in that case, the owner or operator shall notify the

(A) department within 24 hours; and

(B) applicable local government and fire department; the owner or operator might be subject to additional requirements imposed by those agencies.

(b) A site characterization and assessment, if required, must be performed in accordance with 18 AAC 78.090 after notifying the department, local government, and fire department, but before completion of permanent closure or change-in-service.

(c) To permanently close a tank, the owner or operator shall empty and clean it by removing all liquids and accumulated sludge. A UST that is to be closed must be removed from the ground, along with all associated piping, or must be filled with an inert solid material. A UST associated with a known release must be removed from the ground unless the department allows the tank to remain in place because removal of the tank would endanger existing structures. The resulting excavation must be investigated and corrective action completed as required by 18 AAC 78.230 - 18 AAC 78.280 and 18 AAC 78.600 - 18 AAC 78.625. The owner or operator shall document the name of the disposal firm, the disposal method, and the disposal location for all liquids, sludges, and UST components, including tanks, piping, and equipment.

(d) Continued use of a UST to store a substance other than petroleum, or to store heating oil for consumptive use on the premises as the sole use of the UST, is considered a change-in-service. Before a change-in-service, the owner or operator shall

(1) empty and clean the tank by removing all liquid and accumulated sludge;

(2) conduct a site characterization as prescribed in 18 AAC 78.090; and

(3) conduct either a site assessment or a release investigation as prescribed in 18 AAC 78.090 and 18 AAC 78.235.

(e) With the notice required under (a) of this section, the owner or operator shall describe the intended method for disposal of the liquid and accumulated sludge removed under (c) or (d) of this section.

(f) Within 30 days after closure or change-in-service, the owner or operator shall submit a completed post-closure notice and comply with 18 AAC 78.090 and 18 AAC 78.210, if applicable.

(g) The following UST cleaning and closure procedures, the provisions of which are adopted by reference, must be used to comply with this section, unless the department, in its 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 78.090. Site characterization and assessment. (a) When performing permanent closure or a change-in-service, the owner or operator shall complete a site characterization, and depending on the results of the site characterization, perform a site assessment or a release investigation.

(b) A site characterization must include one or more of the following:

- (1) a visual inspection of the site;
- (2) photographs documenting the site;
- (3) surface or subsurface soil and water sampling and analytical testing;
- (4) personal interviews; and

(5) data review.

(c) If the results of the site characterization indicate that a release of petroleum has

(1) not occurred, the owner or operator shall perform a site assessment in accordance with (d) of this section; or

(2) occurred, or is likely to have occurred, the owner or operator shall proceed with corrective action under 18 AAC 78.200 - 18 AAC 78.280, including release notification and release investigation.

(d) A site assessment, if conducted, must be conducted as follows:

(1) the site assessment must include an evaluation of the UST site to

(A) check for obvious leaks at the dispensers and at exposed pumps and piping;

(B) check for obvious soil or water contamination caused by a release or leakage from a UST;

(C) review the UST inventory control and repair records for indications of a release; and

(D) determine the

(i) general nature of the stored substance;

(ii) general nature of the subsurface soils; and

(iii) estimated depth to groundwater; and

(2) the site assessment must include the collection of soil samples; the number and location of samples collected is determined as follows:

(A) for an in-place assessment

(i) of an individual tank that occupies a surface area less than 250 square feet, at least two borings or test pits must be placed within five feet of the tank, each at the midpoint along two sides of an imaginary rectangle drawn around the tank, with one of the borings or pits located on the side parallel to the end of the tank that has the fill point and the second boring or pit located on the side parallel to the length of the tank where contamination is most likely to be present, as determined by field screening conducted as required by the *UST Procedures Manual*;

(ii) of an individual tank that occupies a surface area equal to or greater than 250 square feet, at least two borings or test pits must be placed within five feet of the tank, as required under (i) of this subparagraph; one additional sample must be collected for each additional 250 square feet of surface area, or portion thereof over the initial 250 square feet, at points where contamination is most likely to be present, as determined by field screening conducted as required by the *UST Procedures Manual*; for example, if the total surface area is 1,270 square feet, five additional samples are required;

(iii) of multiple tanks, the borings or test pits for each tank must be placed according to (i) or (ii) of this subparagraph, as applicable; the same boring or test pit may be used to satisfy the requirements applicable to more than one tank, if that boring or test pit meets the requirements for each tank separately;

(iv) of dispensing areas, at least one boring or test pit must be placed adjacent to any UST dispensing equipment; if multiple dispensers exist on a common dispensing island, then one boring or test pit may be placed at the midpoint between the dispensers; if multiple dispensing islands exist, then additional borings or test pits are required at each island; if a canopy exists in a configuration that prevents excavating or boring equipment from operating adjacent to the dispensers or dispenser islands, samples may be collected as close as possible to the dispenser islands;

(v) of in-place piping, at least one boring or test pit must be placed adjacent to the piping at points where contamination is most likely to be present, as determined by field screening conducted as required by the *UST Procedures Manual*;

(vi) soil samples for assessments under this subparagraph must be collected from each boring or test pit at an elevation that is below, and within two feet of, the tank bottom and that is within two feet below the lowest point of the piping for the UST dispensing equipment; and

(vii) in this subparagraph, “surface area” is the sum of the tank length plus five feet multiplied by the sum of the tank diameter, or width for square tanks, plus five feet;

(B) for assessment of a closure by removal

(i) of an individual tank with an excavated pit area less than 250 square feet, at least two samples must be collected from two different positions in the pit area, with position one on the longitudinal axis, centered between the ends of the tank, underneath where the tank was located, and position two on the longitudinal axis, underneath where the tank was located, where contamination is most likely to be present, as determined by field screening conducted as required by the *UST Procedures Manual*, but not including position one;

(ii) of an individual tank with an excavated pit area equal to or greater than 250 square feet, at least two samples must be collected from the pit area as required under (i) of this subparagraph; one additional sample must be collected for each additional 250 square feet of pit area, or portion thereof over the initial 250 square feet, at points where contamination is most likely to be present, as determined by field screening conducted as required by the *UST Procedures Manual*; for example, if the total pit area is 1,270 square feet, five additional samples are required;

(iii) of multiple tanks, by taking the samples for each excavated pit area according to (i) or (ii) of this subparagraph, as applicable; the same sample location may be used to meet the requirements applicable to more than one tank, if that sample location meets the requirements for each tank separately;

(iv) of dispensing areas, at least one sample must be collected where the dispenser had been located;

(v) of piping trenches, at least one sample must be taken at points along the piping trench where contamination is most likely to be present;

(vi) soil samples for assessments under this subparagraph must be collected from native soils located at an elevation that is below, and within two feet of the bottom of, the excavated pit, and that is within two feet below the lowest point of the piping for the UST dispensing equipment; and

(vii) in this subparagraph, “the excavated pit area” is determined by the amount of ground surface that was excavated;

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

(C) repealed 1/22/99;

(D) if the borings or test pits cannot be placed or if samples cannot be collected in the manner described in (A) and (B) of this paragraph, any alternative sample location plans must be approved by the department; and

(E) if the tank or associated piping will be removed as part of closure activities, the minimum site assessment sampling for the portion of the UST system removed must be conducted as provided in (B) of this paragraph;

(3) if groundwater is encountered while undertaking the requirements of this subsection and the groundwater prevents the collection of representative soil samples as required in (2) of this subsection, then

(A) soil samples must be collected within the first six inches of the vadose zone above the zone of seasonal water table fluctuation as close as possible to the locations described in (2) of this subsection; and

(B) for the removal of an individual tank, soil samples must be collected from the walls of the excavation next to the ends of the tank at the soil/water interface; for the removal of multiple tanks from the same pit area, soil samples must be collected from each of the four walls of the excavation at the soil/water interface;

(4) if groundwater or the seasonal high water table is known or suspected to exist at a depth from the surface to within five feet below the bottom of the tank, then

(A) at least one boring or test pit must reach groundwater or the zone of seasonal water table fluctuation in an undisturbed portion of the excavation pit area or adjacent to the excavation; and

(B) at least one soil sample must then be collected from the first six inches of groundwater-saturated soil or the zone of seasonal water table fluctuation in accordance with the *UST Procedures Manual*; and

(5) within 60 days after closure or a change-in-service, the owner or operator shall provide to the department a site assessment report that includes a compilation of the information collected and results obtained under (1) - (4) of this subsection and

(A) the owner's name and address;

(B) the operator's name and address, if different from the owner;

(C) the location of the UST, including the legal description by

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

(ii) meridian, township, range, section, and nearest quarter section locations within the section if the location cannot be described under (i) of this subparagraph;

(D) the UST registration number assigned by the department;

(E) the name and business address of each person who supervised the site assessment;

(F) a site sketch that approximately shows

(i) the location and configuration of tanks and piping;

(ii) the sample locations, including depth below grade;

- (iii) the proximity to property, buildings, and residences;
- (iv) any sites where a release has occurred;
- (v) any sites where free product has been or is located;
- (vi) the facility and property boundaries;
- (vii) a bar scale and north arrow; and
- (viii) any other pertinent information;

(G) a narrative description of activities conducted at the site and the dates the activities occurred;

(H) any historical information encountered during the assessment regarding a previous release, repair, spill, or corrective action; and

(I) the data report required in the *UST Procedures Manual*, Section 8.4;

(e) The collection of field data and the interpretation and reporting of site characterization and site assessment data must be conducted or supervised by a qualified, impartial third party in accordance with the *UST Procedures Manual*.

(f) The department will on a site-specific basis, waive the requirement for use of an impartial third party if the owner or operator demonstrates that work performed will be conducted or supervised by a qualified and objective person, and if the department determines that a waiver is protective of human health and safety, and of the environment. To request a waiver under this subsection, the owner or operator shall submit

(1) a 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;

(2) a description of the supervisory and organizational structure related to the person identified in (1) of this subsection; and

(3) a written request for a waiver under this subsection.

(g) 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.

(h) The owner or operator shall use the analytical methods set out in Table 1, Chapter 2 of the *UST Procedures Manual* for site assessment analysis.

(i) repealed 1/30/2003.

(j) Further investigation is not required if

(1) the assessment, observations, and investigations of the UST site indicate that a release has not occurred; and

(2) the results of sample analysis 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 – 18 AAC 75.341 are not exceeded at the UST site.

(k) If contaminated soil, petroleum vapor, contaminated surface water, or contaminated groundwater is discovered during a site assessment, or at any other time, the owner or operator shall proceed with corrective action under 18 AAC 78.200 - 18 AAC 78.280, including release notification and release investigation. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150; am 1/30/2003, Register 165; am 7/25/2012, Register 203)

Authority: AS 46.03.020 AS 46.03.380 AS 46.03.405
AS 46.03.365

Editor's note: The EPA document adopted by reference in 18 AAC 78.090 may be obtained from United States Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161; telephone (800) 553-6847, facsimile: (703) 605-6900, and may be reviewed at the department's Anchorage office..

18 AAC 78.095. Applicability to previously closed UST systems. If the department determines that a release from a UST that was permanently closed before December 22, 1988, might pose a current or potential threat to human health, safety, or the environment, the department will direct the owner or operator of the UST to assess the site as required by 18 AAC 78.090 and to close the UST as required by 18 AAC 78.085. (Eff. 3/25/91, Register 118)

Authority: AS 46.03.020 AS 46.03.365

18 AAC 78.100. Inspection, reporting, and recordkeeping requirements. (a) The owner or operator of a UST shall cooperate fully

(1) during inspections, monitoring, and testing conducted by the department, its designee, or a representative of the United States Environmental Protection Agency; and

(2) in response to requests for document submission, testing, and monitoring required under 42 U.S.C. 6991d, as amended through September 22, 1995.

(b) The owner or operator of a UST shall submit to the department

(1) the applicable registration information and forms required by AS 46.03.380(b), 46.03.385(d), 46.03.400, and 18 AAC 78.015;

(2) if applicable, reports of

(A) the site assessment as required by 18 AAC 78.090(d)(5), including a site assessment summary, on a form provided by the department or a similar format that provides the same information;

(B) the release investigation as required by 18 AAC 78.235, including a release investigation summary, on a form provided by the department or a similar format that provides the same information;

(C) a suspected release as required by 18 AAC 78.200;

(D) a spill or overflow as required by 18 AAC 78.040;

(E) a confirmed release as required by 18 AAC 78.220;

(F) corrective actions planned or taken, including

(i) initial abatement, as required by 18 AAC 78.230 and 18 AAC 78.235;

(ii) free product removal, as required by 18 AAC 78.240;

(iii) soil and groundwater cleanup levels met, as required by 18 AAC 78.600 - 18 AAC 78.625; and

(iv) a copy of the corrective action plan described in 18 AAC 78.250; and

(G) an inspection as required by 18 AAC 78.017.

(c) Within 30 days after closure, the owner or operator shall notify the department as to whether all applicable local, state, and federal closure requirements were met.

(d) Within 30 days after closure or change-in-service, the owner or operator shall provide to the department a post-closure notice as required by 18 AAC 78.085.

(e) Within 60 days after closure or change-in-service, the owner or operator shall provide to the department a site assessment report if required by, and as prescribed in, 18 AAC 78.090.

(f) The owner or operator shall keep the following records for as long as the UST is used to store petroleum:

(1) records that show compliance with all applicable requirements of this chapter, including

(A) documentation of operation of corrosion protection equipment as required by 18 AAC 78.045(f);

(B) documentation of UST upgrades under 18 AAC 78.030 and repairs under 18 AAC 78.055;

(C) proof of compliance with applicable release detection requirements of 18 AAC 78.060 - 18 AAC 78.070;

(D) results of all operations inspection reports as required under 18 AAC 78.017, until the UST is permanently closed; and

(2) information about any suspected or confirmed release and corrective actions.

(g) The results of any site characterization or site assessment performed under 18 AAC 78.090 shall be retained for at least three years after closure or change-in-service by either the

(1) owner or operator who closed the UST or changed its service; or

(2) current owner or operator of the UST site.

(h) In addition to the requirements of (f) and (g) of this section, the owner or operator shall keep the following records for the period indicated:

(1) leak detection manuals and written performance claims concerning any release detection system used, and the manner in which the claims have been justified or tested by the equipment manufacturer or installer shall be kept for five years after the date of installation or as long as the leak detection system is in service, whichever period is longer;

(2) the results of any sampling, testing, or monitoring must be kept for at least one year, except that the results of tank tightness testing conducted under 18 AAC 78.065(d) must be kept until the next test is conducted;

(3) written documentation of calibration, maintenance, and repair of release detection equipment permanently located onsite must be kept for at least one year after the work is completed;

(4) schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be kept for at least five years; and

(5) for a UST installed between December 22, 1988 and March 25, 1991, the certificate of installation required by 40 C.F.R. 280.20(e) at the time of registration must be kept for the operational life of the UST.

(i) The owner or operator shall keep the records required under this section at the UST site, or at a readily available alternative site, and shall provide the records for department inspection upon request. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150; am 8/15/99, Register 151; am 1/30/2003, Register 165)

Authority:	AS 46.03.020	AS 46.03.390	AS 46.03.400
	AS 46.03.365	AS 46.03.395	AS 46.03.405
	AS 46.03.380		

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
- 273. Offsite or portable soil treatment facilities
- 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, impartial third party in accordance with the *UST Procedures Manual*.

(c) The department will, in its discretion, and on a site-specific basis, waive the requirement under (b) of this section for an impartial third party if the owner or operator documents to the department's satisfaction that work performed under (b) of this section will be conducted or supervised by a qualified and objective person. To meet the requirements of this subsection, the owner or operator shall submit

(1) a resume of the person who is to conduct or supervise the work to be performed under (b) of this section showing relevant education, vocational training, related work experience, and any special training, license, certificate, or registration held by that person; and

(2) for a company, agency, utility, or municipality with environmental staff, a description of the supervisory and organizational structure related to the person identified in (1) of this subsection.

(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)

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 F.

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, impartial third party; the owner or operator may request a waiver from the use of an impartial third party under the procedures of 18 AAC 78.090(f).

(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)

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

Editor's note: The ASTM methods adopted by reference in 18 AAC 78.250 may be reviewed in the department's Anchorage, Fairbanks, Juneau, and Soldotna offices, and may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

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, impartial third party; the owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f).

(b) The owner and operator of an offsite or portable treatment facility shall ensure that a qualified, impartial third party conducts or supervises soil sampling to verify that cleanup levels are met. The owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f). 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)

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 person in accordance with 18 AAC 75.355(b) 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 *Soil Treatment Facility Guidance*, dated November 7, 2002, engineering plans and engineering record drawings for contaminated soil and water containment structures; the *Soil Treatment Facility Guidance*, dated November 7, 2002, 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 *Soil Treatment Facility Guidance*, 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)

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

Editor’s note: The department’s *Soil Treatment Facility Guidance*, adopted by reference in 18 AAC 78.273(a)(1), may be viewed at or requested from the department’s offices in Anchorage, Fairbanks, Juneau, and Soldotna.

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 contaminated soil on a liner or on or within another impermeable surface that prevents soil and groundwater beneath the liner from becoming contaminated; in addition, the owner or operator shall ensure that, for petroleum-contaminated soil, liners meet the minimum specifications for the testing methods set out in Table B of this section;

TABLE B. BOTTOM LINER SPECIFICATIONS		
Short-term storage of petroleum-contaminated soil (less than 180 days)		
Method	Coated Fabric	Extruded Fabric
Cold crack (ASTM D2136-94, September 15, 1994)	-60 °F	-60 °F
Black carbon content (ASTM D1603-94, June 15, 1994)	2 % or greater	2 % or greater
Carbon dispersion (ASTM D3015-95, September 10, 1995)	A-2 range	A-2 range
Tensile strength (ASTM D751-95E1, February 1997)	125 lbs (warp)	N/A
Mullen burst (ASTM D751-95E1, February 1997)	250 psi	N/A
One inch tensile strength (ASTM D882-97, June 10, 1997)	N/A	25 lbs (warp)
One inch elongation MD (machine direction)	N/A	550 %
Nominal thickness	10 mil	10 mil
Oil resistance (ASTM D471-96, June 10, 1996)	No signs of deterioration and more than 80 % retention of tensile and seam strength after immersion for 30 days at 73 °F	No signs of deterioration and more than 80 % retention of tensile and seam strength after immersion for 30 days at 73 °F
Long-term storage of petroleum-contaminated soil (180 days to two years)		
Cold crack (ASTM D2136-94, September 15, 1994)	-60 °F	-60 °F
Black carbon content (ASTM D1603-94, June 15, 1994)	2 % or greater	2 % or greater
Carbon dispersion (ASTM D3015-95, September 10, 1995)	A-2 range	A-2 range
Tensile strength (ASTM D751-95E1, February 1997)	300 lbs (warp)	N/A
Mullen burst (ASTM D751-95E1, February 1997)	500 psi	N/A
One inch tensile strength (ASTM D882-97, June 10, 1997)	N/A	45 lbs (warp)
One inch elongation MD (machine direction)	N/A	625 %
Nominal thickness	20 mil	20 mil
Oil resistance (ASTM D471-96, June 10, 1996)	No signs of deterioration and more than 80 % retention of tensile and seam strength after immersion for 30 days at 73 °F	No signs of deterioration and more than 80 % retention of tensile and seam strength after immersion for 30 days at 73 °F
The American Society for Testing and Materials (ASTM) methods referred to in this table, and revised as of the date identified for each method, are adopted by reference. They may be reviewed at the department's Anchorage, Fairbanks, Juneau, or Soldotna office, and they may be obtained from the American Society for Testing and Materials, 1916 Race St., Philadelphia, Pennsylvania 19103. "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)

Authority:	AS 46.03.020	AS 46.03.710	AS 46.04.020
	AS 46.03.050	AS 46.03.740	AS 46.04.070
	AS 46.03.365	AS 46.03.745	AS 46.09.020

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 impartial third party in accordance with 18 AAC 78.605 and the *UST Procedures Manual*. The owner or operator may request a waiver from the use of an impartial third party under the procedures set out in 18 AAC 78.090(f).

(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, impartial third party in accordance with the *UST Procedures Manual*. The owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f).

(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 EPA's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, as adopted by reference in 18 AAC 78.090, if there is more than one analytical method for a contaminant, an owner or operator may select any of those methods with a practical quantitation limit less than the applicable cleanup level. If only one analytical method has a practical quantitation limit less than the applicable cleanup level, that method must be used. Analysis for petroleum contamination must follow the Alaska methods for petroleum hydrocarbons referred to in Table 1 of the *UST Procedures Manual*.

(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)

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

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, impartial third party. The owner or operator may request a waiver from the use of an impartial third party under the procedures in 18 AAC 78.090(f).

- (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)

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

18 AAC 78.280. 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 3. Cleanup Standards.**Section**

- 300. (Repealed)
- 310. (Repealed)
- 311. (Repealed)
- 312. (Repealed)
- 315. (Repealed)
- 320. (Repealed)
- 322. (Repealed)
- 325. (Repealed)
- 327. (Repealed)
- 330. (Repealed)
- 335. (Repealed)
- 340. (Repealed)
- 345. (Repealed)
- 350. (Repealed)

Editor's note: As of Register 149, effective 1/22/99, the provisions of former 18 AAC 78.300 - 18 AAC 78.350 were incorporated into 18 AAC 78.600 - 18 AAC 78.625.

18 AAC 78.300. Applicability; general cleanup requirements. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.310. Soil cleanup options. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.311. Soil storage and disposal. Repealed. (Eff. 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.312. Soil remediation requirements. Repealed. (Eff. 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.315. Soil cleanup levels. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.320. Soil sample number and location. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.322. Groundwater and surface water cleanup. Repealed. (Eff. 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.325. Soil sample collection methods. (Eff. 3/25/91, Register 118; repealed 11/3/95; Register 136)

18 AAC 78.327. Groundwater and surface water sample number, sample location, and long-term monitoring. Repealed. (Eff. 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.330. Soil analytical methods and documentation. Repealed. (Eff. 3/25/91, Register 118; repealed 11/3/95, Register 136)

18 AAC 78.335. Submission and evaluation of analytical results. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/98, Register 149)

18 AAC 78.340. Analytical reporting requirements. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

18 AAC 78.345. Surface water and groundwater cleanup. Repealed. (Eff. 3/25/91, Register 118; repealed 11/3/95, Register 136)

18 AAC 78.350. Risk assessment. Repealed. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; repealed 1/22/99, Register 149)

Article 4. Certification of Underground Storage Tank Workers and Inspectors.**Section**

- 400. Certification required
- 410. Categories of certification
- 415. Certification requirements
- 420. Examination requirements
- 425. Work experience and education requirements
- 430. Display of certificate
- 435. Term of certification
- 440. Renewal requirements
- 450. Technical review committee
- 455. Standards of practice
- 470. Suspension or revocation; disciplinary action
- 475. Reciprocity
- 476. Conflict of interest prohibition
- 480. Certification of department employees
- 490. Administration
- 495. Fees
- 499. Definitions

18 AAC 78.400. Certification required. (a) A person may not conduct, and an owner or operator may not allow a person to conduct any part of a UST installation, repair, reconfiguration, closure, tank tightness test, cathodic protection, or inspection unless the person

(1) is certified under this chapter; or

(2) meets the requirements of AS 46.03.375(d).

(b) The requirements of this section also apply to a person who is an officer or employee of the owner or operator of a UST and who performs an activity described in this section.

(c) The requirements of this section do not prohibit the employment of an uncertified person on the job site if a certified person exercises responsible supervisory control and is physically present onsite during the installation, repair, closure, reconfiguration, or while the tank tightness test, cathodic protection test, or inspection is being conducted.

(d) Repealed 8/15/99. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136; am 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: As of August 15, 1999, the substance of 18 AAC 78.400 appears in 18 AAC 78.499.

18 AAC 78.410. Categories of certification. (a) If the certification requirements of 18 AAC 78.415 are met, the division will issue a certification for one or more of the following categories:

- (1) installation, including repairs and significant reconfiguration;
- (2) closure, including removal;
- (3) tank tightness testing;
- (4) cathodic protection testing;
- (5) inspection.

(b) Subject to 18 AAC 78.480(a), a department employee may obtain a department inspector certification in any category listed in (a)(1)-(4) of this section if the requirements of 18 AAC 78.415 are met. Department inspector certification is for compliance inspection purposes only. A department employee certified as an inspector may not conduct an activity described in 18 AAC 78.400(a).

(c) A certification issued under this chapter may not be assigned. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.415. Certification requirements. (a) A person seeking certification under this chapter shall submit a completed application to the division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development on a form provided by the division, and shall pay the applicable fees set by 18 AAC 78.495.

(b) An applicant must

- (1) be an individual;
- (2) meet the work experience or educational requirements at 18 AAC 78.425;
- (3) pass the examination required by 18 AAC 78.420; and
- (4) have all other licenses applicable to the profession for which certification is sought.

(c) If the application is for tank tightness testing, the applicant shall designate the type or types of tightness test for which certification is sought, and show proof that he or she is certified by the manufacturer of the particular tank tightness test. The test method must meet the requirements of 18 AAC 78.065(d). The manufacturer's certification must remain in effect for the duration of a certification issued under this chapter. The department will, in its discretion, recommend that the division assigned occupational licensing functions in the Department of

Commerce, Community, and Economic Development revoke certification under this chapter if the requirements of this subsection are not met.

(d) If the application is for inspection, the applicant shall also obtain and maintain certification in UST installation and cathodic protection. An applicant may apply for certification in UST inspection while an application for certification in UST installation or cathodic protection is pending; however, the division will not issue or renew a certification for inspection unless the applicant is certified in UST installation and cathodic protection.

(e) A person whose UST certification is suspended or revoked under this chapter, or by another state if certification is received through reciprocity under 18 AAC 78.475, will not be certified under this chapter until the period of suspension or revocation has expired. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: With Register 180, January 2007 and under the authority of AS 44.62.125, the regulation attorney changed obsolete terminology concerning division of occupational licensing and the division of banking and securities in conformity with ch. 14, SLA 2005 and to reflect the transfer of certain corporations functions within the Department of Commerce, Community, and Economic Development.

18 AAC 78.420. Examination requirements. A person who seeks certification or renewal of certification under this chapter shall take an examination approved by the department and administered by the division. The examination must test the extent of the applicant's knowledge regarding the category of certification sought, the state statutes and regulations relating to USTs, including familiarity with the nationally-recognized codes of practice listed in this chapter, and the unique environmental conditions affecting USTs in the state. A score of 75 or more is required to pass an examination. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.425. Work experience and education requirements. A person seeking a certification under this chapter, other than inspector certification, must have satisfactory work performance on at least two UST projects in the category for which the certification is sought during the three years immediately before application. Satisfactory work performance must be verified by an endorsement from a person certified under this chapter or under an equivalent program established outside of the state. The division will, in its discretion, accept applicable vocational training for any or all of the work experience required by this section.

(b) A person seeking to become a certified inspector shall show proof of completion within two years before the date of application of

(1) at least one nationally recognized training course, class, examination, or workshop dealing with UST design, installation, testing, or inspection; and

(2) an inspector orientation course provided by the department. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.430. Display of certificate. A certificate, or a copy of a certificate, issued under this chapter must be readily available when work that requires certification is being performed. (Eff. 3/25/91, Register 118)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.435. Term of certification. (a) Except as provided in (b) of this section, a certification issued under this chapter is valid until the next certification expiration date. The certification expiration date is December 31, 1995, and reoccurs every December 31 of odd-numbered years.

(b) If a person is issued certification within 90 days before the next certification expiration date, the person's certification is valid until the following certification expiration date. (Eff. 3/25/91, Register 118; am 8/4/94, Register 131)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.440. Renewal requirements. (a) A person who seeks to renew a certification under this chapter shall renew the certification before it expires in accordance with (c) of this section. If the person's certification expires before it is renewed, the person must meet the requirements for a new certification under 18 AAC 78.415, unless renewal under (c) of this section occurs within 90 days after expiration. A person whose certification has expired may not perform work described in 18 AAC 78.455 unless the

(1) person obtains written department approval before doing the work;

(2) work is necessary to respond to an emergency that threatens human health or the environment; and

(3) the work is performed in the first 90 days after certification expires.

(b) The division will mail a renewal form at least 30 days before the next certification expiration date to a person certified under this chapter. The form will be mailed to the person's last address of record with the division. Failure to receive a renewal form does not relieve a person of the responsibility to renew certification before the current certification expires. A renewal form may also be requested from the division.

(c) To qualify for a renewed certification, a person certified under this chapter shall

(1) submit a completed renewal form to the division;

(2) pay the applicable fee as set out in 18 AAC 78.495;

(3) pass the examination required by 18 AAC 78.420, except as provided in (d) and (e) of this section; and

(4) have all other licenses applicable to the profession for which certification is requested.

(d) A person certified under this chapter who was examined within one year before the certification expiration date is exempt from taking an examination required by (c)(3) of this section.

(e) Notwithstanding the exam requirement of (c)(3) of this section, a person who has maintained certification in a specific category under 18 AAC 78.410 for at least six consecutive years is only required to pass the examination required by 18 AAC 78.420 for every third renewal of that category of certification thereafter, so long as that person performs at least two UST projects in the category during the calendar year before each renewal for which an examination is not required under this subsection.

(f) The division will renew a certification under this section effective as of

(1) January 1 of the first year of the new certification period, if the submittal required by (c) of this section is legibly postmarked or received by the division before that date; or

(2) the date the submittal is legibly postmarked or the date the division receives the submittal required by (c) of this section, whichever is earlier, if that date is after January 1 of the first year of the new certification period.

(g) The division will prorate the first license renewal fee following initial licensure in accordance with 12 AAC 02.020. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136; am 12/21/95, Register 137; am 1/30/2003, Register 165)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.450. Technical review committee. (a) The department will designate a technical review committee to review and to advise the department on examination questions for the categories of certification established by 18 AAC 78.410. The committee will meet at the request of the department.

(b) The technical review committee is comprised of the following members, each of whom must be certified under this chapter:

(1) an employee of the department familiar with UST requirements, regulations, and standards of practice;

(2) an employee of the division familiar with the certification regulations in this chapter; and

(3) one to three persons per certification category to represent the category in which they are certified.

(c) The members of the technical review committee serve at the pleasure of the commissioner of the department. (Eff. 8/4/94, Register 131)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.455. Standards of practice. (a) Except for a person certified under 18 AAC 78.480, a person certified under this chapter

(1) for installation or reconfiguration, shall be at the job site when work requiring certification of installation or reconfiguration is being performed, including

(A) preparation of an excavation before receiving backfill and while the backfill is being placed;

(B) any movement of a tank at a job site, including a transfer of the tank from a vehicle used to transport the tank to the job site;

(C) placement of a tank and its associated piping into the excavation, including placement of an anchoring device, backfill, or strapping;

(D) placement or connection of a piping system to a tank;

(E) installation of cathodic protection;

(F) completion of a backfill and filling of an installation;

(G) covering a UST with concrete, asphalt, or other similar substance;

(H) preparation for and installation of a tank lining system; and

(I) installation, replacement, or repair of release detection equipment; and

(2) for closure, shall be at the job site when work requiring certification of closure is being performed, including

(A) excavation of a tank or piping before removal from the ground;

(B) emptying the contents of a tank or its piping, cleaning a tank, or filling a tank with a solid, inert material;

(C) removal or disposal of a tank's contents after cleaning; and

(D) movement of a tank on the job site, including transfer of the tank to a vehicle used to transport the tank from the job site; the requirements of this subparagraph do not apply to a tank that has been cleaned in accordance with the requirements of *American Petroleum Institute Standard 2015*, adopted by reference in 18 AAC 78.085(g)(2);

(3) for tank tightness testing, shall

(A) be at the job site when tightness testing of the UST or associated piping is being performed; or

(B) verify the tightness testing results if a statistical inventory reconciliation method is being used;

(4) for cathodic protection testing shall be at the job site when testing of cathodic protection is being performed;

(5) for inspection, shall

(A) refer to the department's operations inspection report form; and

(B) no later than 30 days after completing the inspection, sign and submit to the owner or operator a completed inspection report on a form supplied by the department; the report must contain a description of any

(i) deficiencies found;

(ii) corrective action taken by the inspector or a person certified under this chapter; and

(iii) recommendations of the inspector or a person certified under this chapter for further necessary corrections;

(6) may perform only those installations, repairs, reconfigurations, closures, tightness tests, cathodic protection tests, and inspections for which the person is certified under this chapter and which

(A) conform to accepted technical standards imposed by federal, state, and local law;

(B) safeguard human life, health, safety, and property; and

(C) protect the environment;

(7) shall immediately report to the owner or operator a release or suspected release of petroleum detected at a job site or the surrounding area;

(8) shall sign or affix the person's certification number only to an installation, repair, closure, reconfiguration, tightness test, cathodic protection test, or inspection that was done under the person's direct control and supervision; and

(9) shall, after completing a UST installation, reconfiguration, repair, closure, test, or inspection file with the owner or operator a completed checklist on a form supplied by the department that

(A) bears the person's signature and certification number;

(B) provides the registration number of the tank; and

(C) verifies that the items on the checklist have been completed for the tank.

(b) The requirements of this section

(1) must be disclosed by a person certified under this chapter to the person's client or employer; and

(2) are in addition to the certification requirements of 18 AAC 78.415. (Eff. 3/25/91, Register 118; am 8/4/94, Register 131; am 11/3/95, Register 136; am 1/22/99, Register 149; 8/15/99, Register 151; am 1/30/2003, Register 165)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.460. Board of storage tank assistance. (In effect 3/25/91 - 7/22/91, by em adopt., Register 118)

18 AAC 78.465. Dispute resolution. (In effect 3/25/91 - 7/22/91, by em adopt., Register 118)

18 AAC 78.470. Suspension or revocation; disciplinary action. (a) Upon written finding, the division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development will, in its discretion, suspend certification for a period recommended by the department, or revoke a certification if a certified tank worker

(1) fraudulently obtained certification;

(2) fails at any time to meet the requirements for certification;

(3) fails to comply with this chapter;

(4) fails to meet any applicable federal, state, or local law relating to the service performed under the certification; or

(5) falsifies a document regarding work done under this chapter.

(b) If the department receives a complaint regarding the work performance of a person certified under this chapter, or if the department initiates a complaint under (a) of this section, the department will

(1) notify the certified worker of the nature of the complaint and explain all rights and duties under the law;

(2) keep the name of the certified worker confidential unless it finds that disciplinary action, as described in (c) of this section, is warranted;

(3) if the complainant is a third party, request from the complainant the specific nature of the alleged violation, including the statute, regulation, or industry standard that was allegedly violated by the certified worker, if known, and any other documentation the department believes is necessary to determine the validity of the complaint; and

(4) fully review the documentation obtained and determine whether disciplinary or other action is warranted.

(c) If the department finds that disciplinary action is appropriate under (a) or (b) of this section, it will notify the division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development of its recommended action, including reasons for the recommendation. The department will, in its discretion, recommend suspension of the certificate for a specific period, or revocation of the certificate. If a certificate is suspended under this subsection, the period of suspension will not exceed the remaining life of the certificate.

(d) If the department finds that disciplinary or other action is not warranted, it will notify the certified worker and the complainant in writing that the allegations were found to be untrue or that the evidence was insufficient. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: With Register 180, January 2007 and under the authority of AS 44.62.125, the regulation attorney changed obsolete terminology concerning division of occupational licensing and the division of banking and securities in conformity with ch. 14, SLA 2005 and to reflect the transfer of certain corporations functions within the Department of Commerce, Community, and Economic Development.

18 AAC 78.475. Reciprocity. (a) The division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development will, in its discretion, issue a certificate to a person who has a certificate or license as a tank worker from another state if the division finds that the program in that state is comparable to the requirements of this chapter.

(b) To obtain certification under this section, a person shall apply for certification under 18 AAC 78.415 and shall demonstrate knowledge regarding state statutes and regulations relating to USTs, including familiarity with the nationally-recognized codes of practice listed in this chapter, and the unique environmental conditions affecting USTs and their installation by passing that part of the examination described in 18 AAC 78.420.

(c) A certificate issued under this section is limited to the term set out in 18 AAC 78.435, and is subject to the renewal requirements of 18 AAC 78.440. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Editor's note: With Register 180, January 2007 and under the authority of AS 44.62.125, the regulation attorney changed obsolete terminology concerning division of occupational licensing and the division of banking and securities in conformity with ch. 14, SLA 2005 and to reflect the transfer of certain corporations functions within the Department of Commerce, Community, and Economic Development.

18 AAC 78.476. Conflict of interest prohibition. An inspector may not perform or supervise an inspection at a UST facility if the inspector owns or has a significant financial interest in the facility. (Eff. 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

18 AAC 78.480. Certification of department employees. (a) Within one year after employment begins, a department employee shall become certified as an underground storage tank department inspector under this chapter if the employee's assigned duties and responsibilities include

(1) investigating discharges to determine if the discharge is related to potentially faulty UST installation, closure, repair, or reconfiguration; or

(2) field enforcement of the department's regulations regarding UST installation, closure, repair, reconfiguration, or testing.

(b) A department employee will be certified as an underground storage tank inspector if the employee's duties include those listed in (a) of this section and if the employee meets the certification requirements of 18 AAC 78.415(a) - (c). A department employee need not meet the requirements of 18 AAC 78.455.

(c) The department employee's supervisor shall determine the category of certification appropriate for the employee's duties and responsibilities.

(d) A department employee certified under this chapter is subject to the renewal requirements set out in 18 AAC 78.440 other than the fee requirement.

(e) Certification issued to a department employee under this chapter expires automatically on the employee's last day of employment with the department. If the employee wishes to become certified as an underground storage tank worker after leaving department employment, he or she must meet the requirements of all applicable state laws, including 18 AAC 78.415 and 18 AAC 78.455, and pay all required fees.

(f) A state agency that owns or operates a UST may request the division assigned occupational licensing functions in the Department of Commerce, Community, and Economic Development to certify an employee of that agency under the terms of this section. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136; 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.375 AS 46.03.395
AS 46.03.365

Editor's note: With Register 180, January 2007 and under the authority of AS 44.62.125, the regulation attorney changed obsolete terminology concerning division of occupational licensing and the division of banking and securities in conformity with ch. 14, SLA 2005 and to reflect the transfer of certain corporations functions within the Department of Commerce, Community, and Economic Development.

18 AAC 78.490. Administration. The division will

(1) keep a list of the names and certification numbers of all persons certified under this chapter, provide that list to the department, and make it available for public distribution;

(2) keep a file on a person certified under this chapter;

(3) notify an applicant for certification under this chapter, including a department employee applying under 18 AAC 78.480, within 60 days after taking an examination under 18 AAC 78.420, of whether the applicant qualifies for certification, or whether additional information is required; if the applicant qualifies, the notice must be accompanied by a certificate and certification number;

(4) administer, or arrange to have administered, the required examination for each category of certification as determined necessary by the division, and publish notice of the examination and the final filing date in a newspaper of general circulation at least 60 days before the examination;

(5) notify a person certified under this chapter

(A) within five days after the division

(i) receives a complaint regarding the person under 18 AAC 78.470(b); or

(ii) learns of a suspected violation of a federal, state, or local law by the person; and

(B) within 15 days after a disciplinary action decision has been made by the division regarding a complaint or suspected violation;

(6) publish notice jointly with the department, in a newspaper of general circulation in the area where a continuing education course or workshop related to USTs will be offered;

(7) collect fees required for certification under this chapter; and

(8) inactivate an applicant's application or examination results if 12 months or more have elapsed since a correspondence was last received by the division from or on behalf of the applicant. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131)

Authority: AS 44.66.010 AS 46.03.365
AS 46.03.020 AS 46.03.375

18 AAC 78.495. Fees. (a) The following fees are established for purposes of this chapter:

(1) application fee: \$50;

(2) certification fee for each category for which an applicant seeks certification: \$105;

(3) certification fee for each category for which an applicant seeks renewal: \$105;

(4) duplicate certificate fee: \$5;

(5) reciprocity certification fee for each category for which an applicant seeks certification through reciprocity: \$105.

(b) An applicant shall submit a fee required under this section to the division at the time of application, renewal, or request for duplicate certificate. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 8/4/94, Register 131; am 11/3/95, Register 136; am 10/19/97, Register 144)

Authority: AS 46.03.375

18 AAC 78.499. Definitions. For purposes of 18 AAC 78.400 – 18 AAC 78.499,

(1) “certified inspector” means a person who is certified in inspection under this chapter;

(2) “inspect” or “inspection” means to perform a third party inspection, using standards of practice set out in 18 AAC 78.455; “inspect” does not include routine maintenance or an inspection performed by a department inspector;

(3) “repair” means to correct or restore, after a release has occurred, a UST or any part of a UST that routinely contains petroleum, and includes repairs to the tank vessel, pipes, valves, fillpipes, or vents; “repair” does not include routine maintenance. (Eff. 8/15/99, Register 151)

Authority: AS 46.03.020 AS 46.03.365 AS 46.03.375

Article 5. Storage Tank Assistance Fund.**Section**

- 500. (Deleted)
- 505. (Deleted)
- 508. (Deleted)
- 509. (Deleted)
- 510. (Repealed)
- 511. (Deleted)
- 513. (Deleted)
- 514. (Deleted)
- 515. (Deleted)
- 517. (Repealed)
- 520. (Deleted)
- 521. (Deleted)
- 523. (Deleted)
- 524. (Deleted)
- 525. (Repealed)
- 526. (Deleted)
- 528. (Deleted)
- 529. (Deleted)
- 530. (Repealed)
- 534. (Deleted)
- 535. (Deleted)
- 537. (Deleted)
- 540. (Repealed)
- 545. (Repealed)
- 550. (Repealed)
- 555. (Deleted)
- 560. (Deleted)

Editor's note: As of Register 179 (October 2006), and acting under AS 44.62.125(b)(6), the regulations attorney deleted 18 AAC 78.500 – 18 AAC 78.528 and 18 AAC 78.534 – 18 AAC 78.560. 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 regulations made obsolete by those repeals.

18 AAC 78.500. Applicability. Deleted. (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 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.505. General requirements for financial assistance. Deleted. (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 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.506. Form of eligibility certification for cleanup assistance. Deleted. (Eff. 8/24/99, Register 151; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.507. Form of eligibility certification for upgrade and closure assistance Deleted. (Eff. 8/24/99, Register 151; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.508. Application requirements. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000; am 1/30/2003, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.509. Additional requirements for upgrading, closure, and cleanup funding applications. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 4/16/2000, Register 154; am 1/30/2003, Register 165; deleted as of Register 179, October 2006)

18 AAC 78.510. Tank tightness and site assessment incentive program eligibility requirements. Repealed. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; repealed 1/27/94, Register 129)

18 AAC 78.511. Continuation grants and loans. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.513. Determination and conditions of financial assistance. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.514. Ineligible costs. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.515. Tank cleanup grant program eligibility requirements. Deleted. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 1/6/93, Register 125; am 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.517. Emergency grants. Repealed. (Eff. 8/21/91, Register 119; repealed 1/27/94, Register 129)

18 AAC 78.520. Tank upgrading and closure program eligibility requirements. Deleted. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 6/23/94, Register 130; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.521. Tank cleanup loan application process. Deleted. (Eff. 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.523. Tank cleanup loan examination. Deleted. (Eff. 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.524. Tank cleanup loan committee. Deleted. (Eff. 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.525. Reimbursement program eligibility requirements. Repealed. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; am 1/27/94, Register 129; am 6/23/94, Register 130; repealed 4/16/2000, Register 154)

18 AAC 78.526. Disbursement of loan money. Deleted. (Eff. 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.528. Reconsideration of a loan request. Deleted. (Eff. 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.529. Confidentiality of loan information. [Annulled; see editor's note].

(a) The following information is not confidential and is available for public inspection upon request:

(1) a document that is readily available for public inspection as described in 6 AAC 96.100(b), including a deed of trust, a financing statement, a warranty deed, a bill of sale, a mortgage, a judgment or lien, or a vehicle title;

(2) general information regarding loans; that information includes the original loan amount, loan terms, personal guarantees, or disbursement and repayment schedules;

(3) insurance matters, including title insurance policies and correspondence with insurance companies or borrowers regarding losses, accident reports, and nonpayment of premiums;

(4) foreclosure and default proceedings.

(b) The following information is considered confidential and is not subject to public disclosure unless ordered by a court:

(1) financial information, including income tax returns, financial statements, business income statements, pro forma profit and loss statements, credit information obtained directly from banks and other creditors, and reports from consumer credit reporting agencies; and

(2) memoranda and minutes of a loan committee appointed under 18 AAC 78.524, containing information relating to the creditworthiness of an applicant.

(c) Information not described in (a) or (b) of this section may be subject to public disclosure. A request for disclosure must be made, and will be determined, in accordance with 6 AAC 96. Upon receipt of a request for disclosure of information not listed in (a) or (b) of this section, the department will make reasonable efforts to notify the loan applicant and other persons with a privacy interest in the request to permit them to present reasons why the requested information should not be disclosed. (Eff. 4/16/2000, Register 154)

Authority: AS 40.25.110 AS 46.03.020 AS 46.03.440
AS 40.25.120

Editor's note: As of Register 176 (January 2006), and acting under AS 44.62.125(b)(6), the regulations attorney made technical changes to 18 AAC 78.529(a)(1) and (c), to reflect Executive Order 113 (2005). Executive Order 113 eliminated the Telecommunications Information Council and transferred its functions related to public information and records to the governor and to the Department of Administration. Effective August 5, 2006, 18 AAC 78.529 was annulled by sec. 3, ch. 102, SLA 2006.

18 AAC 78.530. Ineligible costs. Repealed. (Eff. 3/25/91, Register 118; repealed 1/27/94, Register 129)

18 AAC 78.534. Project priority ranking procedure. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 1/22/99, Register 149; am 4/16/2000, Register 154; am 1/30/2003, Register 165; deleted as of Register 179, October 2006)

18 AAC 78.535. Program funding allocation. Deleted. (Eff. 3/25/91, Register 118; am 1/27/94, Register 129; am 6/23/94, Register 130; am 4/16/2000, Register 154; am 1/30/2003, Register 165; deleted as of Register 179, October 2006)

18 AAC 78.537. Emergency grants or loans. Deleted. (Eff. 1/27/94, Register 129; am 6/23/94, Register 130; am 11/3/95, Register 136; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.540. Project priority ranking procedure. Repealed. (Eff. 3/25/91, Register 118; repealed 1/27/94, Register 129)

18 AAC 78.545. Application requirements. Repealed. (Eff. 3/25/91, Register 118; repealed 1/27/94, Register 129)

18 AAC 78.550. Determination and conditions of financial assistance. Repealed. (Eff. 3/25/91, Register 118; am 8/21/91, Register 119; repealed 1/27/94, Register 129)

18 AAC 78.555. Payment procedures. Deleted. (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 1/22/99, Register 149; am 4/16/2000, Register 154; deleted as of Register 179, October 2006)

18 AAC 78.560. Compliance agreement. Deleted. (Eff. 3/25/91, Register 118; am 1/27/94, Register 129; am 6/23/94, Register 130; readopt 4/16/2000, Register 154; deleted as of Register 179, October 2006)

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 1.0 across all exposure pathways. Guidance on cumulative risk determinations is provided in the department's *Cumulative Risk Guidance*, dated November 7, 2002. The department's *Cumulative Risk Guidance*, dated November 7, 2002, 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, impartial third party as required by the *UST Procedures Manual*. The owner or operator may request a waiver from the use of an impartial third party under the procedures of 18 AAC 78.090(f). (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am 1/30/2003, Register 165)

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 requested from the department's offices in Anchorage, Fairbanks, Juneau, and Soldotna.

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.

TABLE C NUMBER OF SAMPLES FOR POST-TREATMENT EXCAVATED SOIL	
Cubic Yards of Soil	Minimum Number of Samples
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)

Authority:	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. 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 person shall prepare and sign the report submitted under this section. (Eff. 3/25/91, Register 118; am 11/3/95, Register 136; am 1/22/99, Register 149; am 6/25/99, Register 150)

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 (C₁₀) to the beginning of n-pentacosane (C₂₅) 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 (C₆) to the beginning of the n-decane (C₁₀);

(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 (C₆) to the beginning of n-decane (C₁₀) 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 impartial third party, 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 (C₁₀) 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) "qualified person" or "qualified third party" means a person who actively practices environmental science or engineering, geology, physical science, hydrology, or a related field and has the following minimum education and experience:

(A) a bachelor's degree or equivalent from a nationally or internationally accredited postsecondary institution in environmental science or engineering, geology, hydrology, physical science, or a related field; for purposes of this subparagraph, "equivalent" means that the person earned at least 128 semester hours, 168 trimester hours, or 192 quarter hours at an accredited postsecondary institution, and with at least 18 percent of those hours in a science major and at least 13 percent of those hours in upper division-level courses; and

(B) at least one year of professional experience in environmental science or engineering, geology, physical science, or a related field, completed after the degree described in (A) of this paragraph was obtained;

(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 (C₂₅) to the beginning of n-hextriacontane (C₃₆) 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 person, 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. (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)

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

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.