

## Title 18 Environmental Conservation

### Chapter 60 Solid Waste Management

#### Article

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3. Municipal Solid Waste Landfills. (18 AAC 60.300 - 18 AAC 60.398)
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#### Annotations

Editor's note: Some regulations in this chapter, which was reorganized and revised in 1996, were further changed, effective 10/29/98, and distributed in Register 148. The regulations in this chapter, effective 1/28/96, and distributed in Register 137, constitute a comprehensive reorganization and revision of this material. They replace all previous regulations in this chapter that were repealed simultaneously with the adoption of these regulations. The history line at the end of each section does not reflect the history of the replaced provisions before 1/28/96, nor is the section numbering related to the numbering before that date. Some section numbers in this revision were used in previous versions, but the current sections with those numbers are not necessarily related to the previous section numbers. Previous versions of this chapter, and amendments to those versions, may be reviewed at the Office of the Lieutenant Governor and may be found at Register 47, effective 7/19/73; Register 67, effective 8/21/78; Register 88, effective 10/9/83; Register 103, effective 9/20/87. As of Register 151 (October 1999), the functions of the former Department of Community and Regional Affairs were transferred to other state agencies. Revisions to regulations to reflect changes in state agencies' names were made by the regulations attorney in accordance with ch. 58, SLA 1999 and AS 44.62.125(b)(6).

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#### Article 1

#### General Standards, Requirements, and Limitations

#### Section

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- 18 AAC 60.005. Purpose and applicability

Statute text

(a) The purpose of this chapter is to promote cost-effective, environmentally-sound solid waste management and to ensure that landfills are designed, built, and operated to minimize health and safety threats, pollution, and nuisances. Each type of solid waste that is disposed in a landfill must be placed only in a landfill that meets the standards for that type of waste.

(b) Except as described in (c) of this section, this chapter applies to any person who accumulates, stores, transports, treats, or disposes of solid waste. The general requirements of 18 AAC 60.005 - 18 AAC 60.265 and 18 AAC 60.800 - 18 AAC 60.860 supplement the specific requirements for

(1) municipal solid waste landfills (MSWLF) as covered by 18 AAC 60.300 - 18 AAC 60.398;

(2) monofills as covered by 18 AAC 60.400 - 18 AAC 60.495; and

(3) land application of biosolids as covered by 18 AAC 60.500 - 18 AAC 60.510.

(c) The following wastes and materials, if disposed of or used as described in this subsection, are exempt from the requirements of this chapter unless mixed with nonexempt waste, there is a public health, safety, or welfare threat or environmental problem associated with management of the waste or material, or the waste or material is being managed in a manner that causes or contributes to a nuisance:

(1) landclearing waste, including excavated dirt, rock, soil, butt ends, stumps, and other similar waste;

(2) tree limbs and other foliage or woody debris, sometimes referred to as "slash," in a timber harvest area;

(3) bricks, mortar, and Portland cement type concrete, including reinforcing steel that cannot be easily removed;

(4) crumb rubber used in asphalt paving;

(5) crushed glass;

(6) domestic wastewater, nondomestic wastewater, and other wastes that are subject to a permit under AS 46.03, 18 AAC 72, or 33 U.S.C. 1342 (Federal Water Pollution Control Act, sec. 402), as amended through August 21, 1998;

(7) septage or septic tank pumpings that contain less than five percent solids by weight regulated under 18 AAC 72;

(8) waste rock from a mining operation;

(9) tailings from placer mining that have not been amalgamated or chemically treated; other mine tailings are regulated under 18 AAC 60.455;

(10) mining waste regulated by the Federal Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. 1201 - 30 U.S.C. 1328, as amended through August 21, 1998, and by the Alaska Surface Coal Mining Control and Reclamation Act (AS 27.21), as amended through August 21, 1998;

(11) wood waste generated in amounts less than 10 cubic yards yearly, or in larger amounts if the conditions listed in this paragraph are met; wood waste that does not meet these conditions is regulated under 18 AAC 60.005 - 18 AAC 60.265, 18 AAC 60.480, and 18 AAC 60.800 - 18 AAC 60.990; the conditions that must be met are, as follows:

(A) the wood waste is used to construct roads, building pads, or parking areas;

(B) the use of wood will not diminish the life span or capabilities of the project when compared with other materials typically used in such projects;

(C) the project complies with the water quality standards in 18 AAC 70; and

(D) the wood waste in the project is no more than 10 feet thick at any location;

(12) source, special nuclear, or byproduct material is defined in 42 U.S.C. 2014 (Atomic Energy Act), as amended through August 21, 1998;

(13) crushed asphalt pavement used

(A) in a building pad or parking area as road base or pavement;

(B) as a material to construct a containment berm for a tank farm; or

(14) any treated waste allowed by the department to be managed as exempt waste under 18 AAC 60.005(e);

(15) soil containing a hazardous substance that does not meet the definition of "polluted soil" in 18 AAC 60.990;

(16) other solid wastes and materials placed on the land which meet the conditions established in 18 AAC 60.007.

(d) A treatment works designed to treat less than five tons of waste daily or 10 tons in a single batch is exempt from the requirements of this chapter unless it causes or contributes to a threat to public health, safety, or welfare, or the environment or unless the works is operated in a manner that causes or contributes to a nuisance.

(e) If a person treats a waste and demonstrates to the department's satisfaction that the potential for a release of hazardous constituents is eliminated by the treatment and the treated waste will not present a threat to the public health, safety, or welfare or to the environment, the department will allow the treated waste to be managed as an inert waste under 18 AAC 60.460 or an exempt waste under (c) of this section. The operator of the treatment works must

(1) secure the approval of the department before handling the waste as inert or exempt under this subsection; and

(2) keep records demonstrating that all waste managed under this subsection was treated in the manner on which the approval was based.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.007. Solid wastes used as fill

#### Statute text

(a) A person may place the following solid wastes on the land for a fill project that meets the conditions in this section:

(1) wood waste;

(2) inert waste;

(3) coal ash;

(4) crushed pavement;

(5) other similar solid wastes approved by the department.

(b) person may not use the following wastes as fill:

(1) animal waste;

(2) asbestos;

- (3) biosolids;
- (4) commercial solid waste;
- (5) drilling waste;
- (6) hazardous waste;
- (7) household waste;
- (8) industrial solid waste;
- (9) medical waste;
- (10) mining waste;
- (11) pathological waste;
- (12) PCB waste;
- (13) putrescible waste;
- (14) selected isolation waste;
- (15) sewage solids;
- (16) tires;
- (17) vehicles and construction equipment.

(c) A person may not place solid waste on the land until the person has submitted a proposal to the department, and the proposal has been approved. A proposal submitted under this section must include the following:

(1) an appraisal or assessment showing the current value of the property where the solid waste is to be placed;

(2) a list of each waste to be placed at the site, including the expected volume and the source of each waste type;

(3) the proposed future use of the site;

(4) an estimate of the value the property will have after the solid waste is in place;

(5) an operations plan explaining where and when the various wastes will be placed on the land;

(6) an estimate of the expected compaction density and load bearing capacity of the finished fill;

(7) a list of each permit and approval issued or expected to be issued by other government agencies;

(8) construction drawings showing

(A) surface contours of the existing site;

(B) surface contours of the finished site;

(C) the location and details for all drainage ditches and culverts to be installed;

(D) the location of any temporary or permanent road or ramp; and

(E) any pavement, sewer, plumbing, or electrical installation.

(d) The department will approve a proposal for solid waste disposal under this section within 30 working days after receipt of the request, if the waste meets the conditions listed in (b) of this section, the person requesting permission has submitted the information required under (c) of this section, and the department finds that the project will

(1) increase the market value of the property;

(2) not shift, erode, or settle in a way that will preclude proposed future use of the site;

(3) not create any harmful leachate;

(4) not undergo combustion; and

(5) not cause a threat to the public health, safety, or welfare, or to the environment.

#### History

History: Eff. 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.008. Beneficial use

#### Statute text

(a) If a person wants to use a solid waste other than the solid wastes specified in 18 AAC 60.007(a) for beneficial purposes other than the land placement options specified in 18 AAC 60.007(a), that person shall submit a proposal explaining the proposed use and all features of the proposal that are incorporated to protect public health, safety, and welfare, and the environment.



(b) The department will review the proposal and exempt the solid waste from some or all of the requirements of this chapter if the department finds that the proposal adequately protects public health, safety, and welfare, and the environment.

#### History

History: Eff. 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.010. Accumulation, storage, and treatment

#### Statute text

(a) A person may not store accumulated solid waste in a manner that causes

(1) a litter violation under 18 AAC 64.015;

(2) the attraction or access of domestic animals, wildlife, or disease vectors;

(3) a health hazard; or

(4) polluted run-off water.

(b) A person who sponsors an event that is open to the public and at which solid waste is generated shall

(1) collect, store, transport, and dispose of the solid waste at a solid waste disposal facility that has a permit or is otherwise authorized under this chapter; or

(2) make contractual or other arrangements for the proper collection, storage, transportation, and disposal of that waste at a solid waste disposal facility that has a permit or is otherwise authorized under this chapter.

(c) A person who has made contractual or other arrangements for the collection, storage, transportation, and treatment of solid waste is not relieved of the responsibility for that waste if the contractor fails to manage the waste in compliance with this section.

(d) A person shall dispose of a carcass

(1) of livestock, including poultry, infected with a communicable disease, only if authorized by the state veterinarian and in accordance with 9 C.F.R. 53.4, revised as of January 1, 1998, adopted by reference;

(2) of any animal not described in (1) of this subsection, other than open range livestock, unless the carcass is used as food for humans or animals,

(A) at a landfill that operates in accordance with a permit issued under this chapter;

(B) by cremation or incineration in an incinerator that complies with 18 AAC 50; or

(C) by burial on land, with the landowner's permission; and

(3) of any animal not disposed under (1) or (2) of this subsection that the department determines is causing a nuisance or threat to the public health, safety, or welfare or to the environment, by one of the methods set out in (2) of this subsection.

(e) Subject to 18 AAC 60.040(b), a person who wishes to dispose of organic waste from a commercial slaughterhouse or fish processing waste may apply that waste to agricultural or silvicultural land for soil enhancement purposes if the waste is

(1) ground to less than two inches in diameter;

(2) treated by a method described in 40 C.F.R. 503.15, revised as of July 1, 1997, adopted by reference, to reduce the number of salmonella spp. or fecal coliform bacteria present to meet the Class A requirements for pathogen reduction at the time of land application;

(3) incorporated into the soil surface when the waste is applied;

(4) applied at or below the agronomic rate for nitrogen for any crop or vegetation that will be grown on that land;

(5) applied in a manner that does not create an odor nuisance or attract animals or other vectors; and

(6) applied in a manner that ensures that run-off of surface water from the disposal site does not violate the water quality standards in 18 AAC 70.

(f) The owner or operator of a transfer station designed to hold 20 cubic yards or more of waste shall

(1) use containers with covers, fencing, or another department-approved method to prevent wind and animals from scattering the waste;

(2) pick up litter as necessary to prevent a violation of AS 46.06.080;

(3) manage the site so that the standards in 18 AAC 60.230 for disease vectors and animal control are met; and

(4) prevent or control run-off that would violate 18 AAC 70.

(g) If the department finds that a transfer station that is not part of a facility holding a permit under this chapter is causing a nuisance or a risk to public health or safety or to the environment, the department will require the operator to submit a facility design and operating plan explaining how the operator will

(1) meet the requirements of (f) of this section;

(2) conduct operations to prevent a fire at the transfer station;

(3) promptly extinguish any fire that occurs;

(4) control odor and dust as necessary to prevent a public nuisance;

(5) provide safe public access to the facility as necessary;

(6) manage hazardous waste abandoned by others at the facility; and

(7) prevent or control run-off that would violate 18 AAC 70.

(h) Except as provided for drilling waste in 18 AAC 60.430, if the department finds that a facility used to store more than 50 tons of materials for reuse, recycling, or resource recovery, or more than 50 tons of solid waste before disposal, is causing or contributing to a nuisance or poses a risk to public health, safety, or welfare, or to the environment, the department will require the operator to meet one or more of the following requirements:

(1) provide proof to the department that the landowner has consented to the waste storage activity, unless the operator owns the property;

(2) remove the materials from the facility or store materials at the facility for no more than one year;

(3) use containers with covers, fencing, or another department-approved method to prevent litter;

(4) pick up litter as necessary to prevent a violation of AS 46.06.080;

(5) manage the facility so that the standards in 18 AAC 60.230 for disease vectors and animal control are met;

(6) prevent fire at the facility;

(7) promptly extinguish any fire that occurs;

(8) prevent or control run-off that would violate 18 AAC 70;

(9) control odors, noise, and dust as necessary to prevent a nuisance;

(10) provide safe public access to the facility as necessary;

(11) manage hazardous waste abandoned by others at the facility;

(12) monitor the temperature of waste piles to detect combustion;

(13) take other appropriate action; and

(14) repealed 9/7/2002.

(i) The owner or operator of a solid waste treatment works that is designed to treat more than five tons of waste daily, and that is not located within the boundaries of a permitted landfill shall

(1) use containers with covers, fencing, or any other short-term, department-approved storage method to prevent wind and animals from scattering the waste;

(2) pick up litter as necessary to prevent a violation of AS 46.06.080;

(3) manage the treatment works so that the standards in 18 AAC 60.230 for disease vectors and animal control are met;

(4) control odors as necessary to prevent a public nuisance;

(5) prevent or control run-off that would violate 18 AAC 70;

(6) prevent fire at the treatment works;

(7) promptly extinguish any fire that occurs;

(8) provide safe public access to the site as necessary;

(9) control dust;

(10) manage hazardous waste abandoned by others at the treatment works; and

(11) take other appropriate action.

(j) The department will require corrective action as necessary at a facility regulated under this section if there is reason to ; am believe that the water quality standards in 18 AAC 70 have been violated or if conditions at the facility are likely to result in harm to public health or the environment.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.015. Transport

#### Statute text

(a) A person who transports solid waste shall keep the waste contained during transport.

(b) A person who spills solid waste during transport shall promptly pick up the waste and any waste residue resulting from the spill.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020  
AS 46.03.020  
AS 46.06.080

18 AAC 60.020. Hazardous waste

Statute text

(a) A person may dispose of used oil or a regulated hazardous waste only

(1) at a facility that is approved by the department for the disposal of that specific type of waste; or

(2) in accordance with a permit issued by the department.

(b) A hazardous waste, other than an acute hazardous waste, generated by a conditionally exempt small quantity generator, may be disposed of at a facility that meets the requirements for a Class I or Class II MSWLF set out in 18 AAC 60.300 - 18 AAC 60.397, unless the disposal would violate the liquids restrictions set out in 18 AAC 60.360.

History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151

Annotations

Authority: AS 44.46.020  
AS 46.03.010  
AS 46.03.020  
AS 46.03.296  
AS 46.03.299  
AS 46.03.302  
AS 46.03.800  
AS 46.03.810  
AS 46.06.080

18 AAC 60.025. Polluted soil

Statute text

(a) Unless disposal is approved under (b) of this section, polluted soil may be disposed of only in a Class I MSWLF or a landfill that meets all applicable requirements of this chapter and federal law for the disposal of industrial solid waste, or for drilling waste.

(b) The disposal of polluted soil at a landfill other than a landfill that meets the requirements in (a) of this section will be approved if the owner of the polluted soil or the operator of the landfill demonstrates, to the satisfaction of the department, that

(1) the waste in the landfill cannot be leached or washed into nearby surface water;

(2) the polluted soil will not cause a threat to the public health, safety, or welfare, or to the environment;

(3) the owner of the landfill agrees to implement institutional controls that the department determines are necessary for long term protection of the public health, safety, or welfare and the environment; and

(4) a practical potential does not exist for migration of a hazardous constituent from that landfill to an aquifer of resource value during the active life of the landfill and post closure care; the demonstration required by this paragraph must be certified by a qualified groundwater scientist and based upon site-specific

(A) field-collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting fate and transport of hazardous constituents; and

(B) hazardous constituent fate and transport predictions that anticipate maximum, likely migration and consider effects on public health, safety, and welfare and the environment.

#### History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.296

AS 46.03.299

AS 46.03.302

AS 46.03.800

AS 46.03.810

AS 46.04.020

AS 46.09.020

18 AAC 60.030. Medical waste



Statute text

(a) A person shall manage medical waste in a way that prevents the spread of disease.

(b) The owner or operator of a permitted municipal solid waste landfill facility or industrial solid waste monofill may accept medical waste that has been treated according to the manufacturer's instructions

(1) in an autoclave;

(2) by a decontamination process other than an autoclave; or

(3) in a medical waste incinerator.

History

History: Eff. 1/28/96, Register 137; am 9/7/2002, Register 163

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.035. Vehicles and construction equipment

Statute text

A person who disposes of a vehicle or construction equipment shall ensure that all batteries are removed and the vehicle or equipment

(1) is not used to stabilize a slope or to prevent erosion;

(2) is drained of all fluids before disposal; and

(3) does not create a visual nuisance or attract disease vectors.

History

History: Eff. 1/28/96, Register 137

Annotations

Authority: AS 44.62.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.040. Wellhead protection

Statute text

(a) A new landfill or lateral expansion of an existing landfill may not be constructed within 500 feet of a well used as a drinking water supply.

(b) A person may not dispose of septage, sewage solids, fish waste, animal manure, or animal byproducts or waste on the ground within 100 feet of a well that produces water suitable for drinking.

History

History: Eff. 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.800

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Article 2

Waste Disposal Permit

Section

200. Permit requirement.

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255. General permit.  
260. Permit modification and revocation.  
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270. Termination of post-closure obligations.  
18 AAC 60.200. Permit requirement

Statute text

(a) Except as otherwise provided in this section, a person may treat or dispose of solid waste, or construct, modify, or operate a solid waste facility only in accordance with a waste disposal permit issued by the department under 18 AAC 60.215. However, a permit under this chapter is not required for

(1) a single-family or duplex residence or a farm where solid waste is generated and disposed of on the premises;

(2) the closure of an inactive reserve pit, solid waste facility, or dump;

(3) disposal that is governed by a permit issued under 18 AAC 72.010, 18 AAC 72.210, or an approved contaminated site cleanup plan under 18 AAC 75 or 18 AAC 78;

(4) disposal that is governed by a permit issued under 18 AAC 62 or under 40 C.F.R. Part 264 or 40 C.F.R. Part 265, revised as of July 1, 1998, adopted by reference;

(5) disposal under an underground injection permit issued under 42 U.S.C. 300h-4 (Safe Drinking Water Act);

(6) a person who transports solid waste to an approved facility;

(7) a facility that is used only for the disposal of material and waste exempted by 18 AAC 60.005(c);

(8) a transfer station, except one that is located at a facility otherwise subject to this section;

(9) a reuse, recycling, or resource recovery facility unless the department determines that the facility is causing or is likely to cause excessive odor or other problems such as combustion, blowing litter, water quality degradation, or vermin attraction;

(10) a solid waste treatment works or a solid waste treatment facility that is designed to treat less than five tons of waste daily;

(11) drilling, trenching, and other activities described in AS 46.03.100(f) that are not subject to the permit requirements of AS 46.03.100;

(12) animal or fish waste disposed under 18 AAC 60.010(d) or (e);

(13) polluted soil that is polluted only because of a naturally occurring metal if the soil is returned to the location where the soil was excavated or taken to another area with an equal or greater concentration of the same metal;

(14) storage of industrial solid waste under 18 AAC 60.430(a);

(15) waste approved for use as fill under 18 AAC 60.007;

(16) waste approved for beneficial use under 18 AAC 60.008; or

(17) waste managed under a plan approved under 18 AAC 60.207.

(b) If the department certifies an activity under 33 U.S.C. 1344 (Clean Water Act, section 404) and attaches conditions to that certification, and if the department decides that certification may be substituted for a permit required under this chapter, the department will enforce the terms and conditions of the certification in the same way it would require compliance with a permit issued under this chapter for the same activity.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.205. Solid waste management planning

Statute text

(a) AS 46.03.100(e) requires an applicant for a solid waste permit to demonstrate that the applicant has reasonably considered all solid waste management options and that the permit would be consistent with the waste management hierarchy established in AS 46.06.021. The information submitted under (c) of this section must be accurate and complete. Selection of the solid waste management system is left to the applicant. The purpose of this section is to ensure that the applicant is proposing a waste management system consistent with the hierarchy of waste source reduction, recycling, treatment, and disposal wherever economically feasible. If the solid waste management plan includes a proposal for a new landfill, the solid waste management plan must be submitted to and approved by the department before a landfill permit application will be considered complete under 18 AAC 60.210.

(b) An applicant is exempt from the requirements of this section if the facility to be permitted

(1) is privately owned and operated without financial assistance from a local, state, or federal government agency; and

(2) was not built using a government grant or other nonreimbursable form of governmental financial assistance.

(c) Except as provided in (d) of this section, an applicant must submit all of the following information to make the demonstration required in (a) of this section:

(1) an estimate of the quantity and source of each type of waste to be managed;

(2) a general description of the waste collection, treatment, and disposal methods to be used and the end points of the various waste stream components;

(3) if the system includes a landfill,

(A) a calculation of the space available for disposal; and

(B) the estimated total life cycle costs for a proposed new landfill or the estimated remaining life cycle costs for an existing landfill;

(4) the expected useful life of the components of the solid waste management system, including the proposed closure date of any landfill included in the system; and

(5) the lowest available cost estimate to transport the waste to another facility, including a general cost breakdown for each feasible waste transport alternative.

(d) If the owner or operator of a landfill has previously prepared a comprehensive solid waste management plan addressing the topics in (c) of this section, the department will review the existing plan. Revisions to the structure of the plan are not required.

(e) Except for a Class III MSWLF or a facility exempted by (b) of this section, all applicants shall estimate the economic feasibility of waste source reduction, recycling, and treatment of the main components of the waste stream that would otherwise be landfilled. The economic feasibility study must take into account the cost of disposal that would be avoided by diverting the waste from the landfill.

(f) Within 30 days after receiving the information required by (c) and (e) of this section, the department will review it to determine whether it satisfies the requirements of this section and AS 46.03.100(e). The department will find the information satisfactory if the

(1) information submitted under (c)(3)(B), (5), and (e) of this section is reasonably accurate compared to the best related information available and considering the waste types and volumes; and

(2) wastes are being reduced, reused, recycled, or treated as feasible and in a manner consistent with AS 46.06.021.

(g) If the department determines that additional information is needed before making the findings required by (f) of this section, it will serve notice on the applicant in accordance with 18 AAC 15.040.

(h) For purposes of (f)(1) of this section, the "best related information available" includes

(1) other solid waste permit applications for similar facilities in comparable conditions;

(2) recent engineering studies that provide estimates of facility costs; and

(3) professional knowledge and published materials.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

Editor's note: The department strongly recommends that applicants employ a public education program or an employee education program to help affected persons understand the most cost-effective way to use a solid waste management system. The public education plan should be part of the planning process and should clearly explain how the system can most efficiently minimize pollution and nuisance factors such as fires, odors, and animal attraction. The department has information to help permit applicants prepare solid waste plans, including reports that estimate costs of waste management alternatives at more than 50 Alaskan cities and villages. A person considering a landfill project should contact the nearest department office for help in planning a cost-effective, environmentally sound solid waste management system.

18 AAC 60.207. Operation under a comprehensive solid waste management permit

Statute text

(a) A person proposing to treat, transport, store, or dispose of solid waste in a manner requiring two or more permits under this chapter may submit a proposal to the department to operate the solid waste management system under an approved comprehensive solid waste management permit in lieu of individual permits for each facility.

(b) A person who submits a proposal under (a) of this section must explain how the waste will be treated, stored, transported, and disposed, and must identify any disposal sites. The comprehensive solid waste management permit is subject to the same public notice provisions as a solid waste disposal permit and to the fees specified in 18 AAC 60.700.

#### History

History: Eff. 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

#### 18 AAC 60.210. Permit application

##### Statute text

(a) A person required by 18 AAC 60.200 to have a permit shall submit a completed and signed application to the department as required by 18 AAC 15. If the proposed operation will be located in or might affect the coastal zone of this state, the applicant shall also complete and submit the coastal project questionnaire required by 6 AAC 50.070. Before submitting an application, the applicant shall schedule a preapplication scoping meeting with the department.

(b) Except for an application for biosolids that are to be applied to land under 18 AAC 60.510, an application for a permit or permit renewal must consist of

(1) a cover letter that contains

(A) a statement indicating the class of landfill or the type of operation for which the permit is sought, and evidence showing that the proposed facility meets the description of that type of facility in 18 AAC 60.005(a) or 18 AAC 60.300(c);



(B) a general narrative description of the site topography, geology, climate, surface hydrology, and groundwater hydrology;

(C) a statement that the applicant is aware of all applicable local ordinances, all local zoning requirements, and, if appropriate, the requirements of AS 46.40 and 6 AAC 50 (Alaska Coastal Management Program); and

(D) information required by 18 AAC 60.820(c) or 18 AAC 60.900 to support any waiver requested;

(2) completed permit application on a form supplied by the department, or on an equivalent form approved by the department;

(3) drawings, documents, and plans that demonstrate the applicant will meet the requirements of the applicable standards in this chapter pertaining to

(A) the location of the landfill;

(B) facility design features;

(C) operations at the site;

(D) monitoring for signs of pollution or other problems;

(E) closing landfills; and

(F) financial assurance for closure and post-closure activities;

(4) contour drawings and waste disposal volume estimates;

(5) closure and post-closure cost estimates;

(6) a disclosure of any anticipated future uses of the property;

(7) a copy of the deed to the property for the facility, or of some other instrument that is routinely examined during a title search and that identifies the landowner; that copy must be accompanied by a

(A) copy of any lease agreement that is clearly relevant to the proposed activity; or

(B) written statement signed by the landowner, showing that the landowner consents to the proposed activity, and agrees to the placement of a notation on the deed or other instrument as required by 18 AAC 60.395(i), 18 AAC 60.396(b), and 18 AAC 60.490; and

(8) the permit application review fee and any applicable one-time fees required by Table 1-2 or Table 1-4 in 18 AAC 60.700(a).

(c) For a landfill that accepts more than five tons of waste per day, on an annual basis, the owner or operator shall ensure that a permit application or renewal described in this section is signed and sealed by a registered engineer verifying that the

(1) narrative description submitted to meet the requirements of (b)(1)(B) of this section is correct;

(2) drawings, documents, and plans submitted to meet the requirements of (b)(3)(C), (b)(3)(D), and (b)(4) of this section are complete and accurate;

(3) drawings, documents, and plans submitted to meet the requirements of (b)(3)(A) of this section clearly and accurately show how the facility will meet the requirements of this chapter;

(4) estimate and calculations submitted to meet the requirements of (b)(3)(B) and (b)(5) of this section are complete and correct; and

(5) closure plan submitted to meet the requirements of (b)(3)(E) of this section is feasible.

(d) If an application is deficient, the department will notify the applicant and will describe the deficiencies. When the deficiencies are corrected, the application will be considered complete for purposes of 18 AAC 15.050, and the department will continue processing the application.

#### History

History: Eff. 1/28/96, Register 137; am 6/28/96, Register 138; am 10/29/98, Register 148; am 7/11/99, Register 151; am 6/30/2002, Register 162; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

18 AAC 60.215. Permit issuance

#### Statute text

(a) The department will issue or deny a permit after reviewing information contained in the application and the public record, based upon the

(1) applicable provisions of this chapter and 18 AAC 15;

(2) air quality control regulations in 18 AAC 50;

(3) water quality standards in 18 AAC 70;

(4) wastewater disposal regulations in 18 AAC 72;

(5) drinking water standards in 18 AAC 80;

(6) Alaska Coastal Management Program, AS 46.40, if applicable;

(7) Alaska Historic Preservation Act, AS 41.35.010 - 41.35.240;

(8) long-term stability of the facility and related structures in areas subject to natural events such as augeis, floods, earthquakes, avalanches, landslides, mudflows, land slippage, or thaw-unstable permafrost; and

(9) applicant's compliance history while conducting other operations regulated by the department under this title, including any notice of violation, mandatory compliance order, consent order, and any other administrative, civil, or criminal enforcement action; an applicant's compliance history will constitute sufficient basis for denial of approval if, in the department's determination, that history shows a pattern or practice of noncompliance that demonstrates the applicant's unwillingness or inability to achieve or maintain compliance with the provisions of this chapter.

(b) The department will attach conditions to the permit

(1) to ensure compliance with applicable state law;

(2) that incorporate the standards of this chapter relating to siting, design, construction, operation, and closure of the facility; and

(3) to ensure that dust, odor, and safety hazards are kept to a minimum.

(c) The permittee shall provide timely, adequate notice to the department of any change in the permittee's mailing address or physical residence.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.217. Separation from groundwater

Statute text

A new unlined landfill or a lateral expansion of a landfill may not be located closer than 10 feet above the highest measured level of an aquifer of resource value unless the landfill is constructed two feet or more above the natural ground surface.

#### History

History: Eff. 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.220. Access requirements

#### Statute text

Except for a facility that treats or disposes of biosolids and is subject to 18 AAC 60.500 - 18 AAC 60.510, the owner or operator of a facility subject to the permit requirements of AS 46.03.100 or this chapter shall

(1) control public access;

(2) prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both; the requirements of this paragraph do not apply to a Class III MSWLF unless it is connected to a major road system;

(3) ensure that public salvaging, if allowed, is performed in an area that does not hinder facility operations, create a safety hazard, or cause pollution; and

(4) ensure that access and onsite roads under the operator's control are kept passable and safe for vehicles during normal hours of operation.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020  
AS 46.03.100  
AS 46.03.110  
AS 46.03.810  
AS 46.06.080

18 AAC 60.225. Surface water requirements

Statute text

(a) The owner or operator of a solid waste disposal facility may not allow the placement of solid waste in surface water unless that placement is allowed in a permit issued under AS 46.03.100 and this chapter.

(b) Except for an inert waste landfill, an asbestos landfill, or a Class III MSWLF that meets the standards in 18 AAC 60.300(c)(3)(B), the owner or operator of a landfill shall

(1) remove all ponded water that is in contact with waste within seven days after the formation of the pond unless another dewatering schedule is specified in a permit issued under AS 46.03.100 and this chapter;

(2) if the department determines that a control system for stormwater run-off is necessary to prevent the landfill contributing to siltation or flooding problems in nearby surface water bodies, construct and maintain a control system capable of containing and controlling the run-off from a 24-hour, 25-year storm; and

(3) prevent, contain, or control visible leachate seeps at the boundary of the waste management area.

(c) Except for a Class III MSWLF that meets the conditions of 18 AAC 60.300(c)(3)(B), the owner or operator of a solid waste disposal facility shall construct and maintain a run-on control system that will prevent run-on from flowing onto the active portion of the facility. The control system must be capable of handling the peak discharge from a 25-year storm.

(d) The owner or operator of an inert waste landfill, an asbestos landfill, or a Class III MSWLF that meets the standards of 18 AAC 60.300(c)(3)(B) shall

(1) minimize contact between stormwater and the waste;

(2) construct and operate the landfill so that seasonal flooding is temporary in duration and ponded water is removed within 30 days; and

(3) prevent, contain, or control visible leachate seeps at the boundary of the waste management area if the department determines that leachate control measures are necessary to prevent a potential threat to public health, safety, or welfare.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.227. Landfills located on permafrost

#### Statute text

(a) The department will not approve the construction of a landfill on a site underlain by permafrost unless the owner or operator can demonstrate that a practical alternative to the site chosen does not exist.

(b) Landfills on permafrost must be designed and operated so that the permafrost remains frozen to the greatest extent practical, and water does not pool anywhere on the site.

(c) If a landfill underlain by permafrost begins to settle so that water is pooling on the site, the owner or operator shall take corrective action to eliminate all water pooling or close the landfill within 90 days after the pooling begins.

#### History

History: Eff. 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100  
AS 46.03.110  
AS 46.03.810  
AS 46.06.080

18 AAC 60.228. Exemptions for freezeback landfills

Statute text

(a) Subject to (d) of this section, the department will not require the installation of a liner, groundwater monitoring, or methane gas monitoring for a landfill located in permafrost regions if the owner or operator of the landfill demonstrates that

(1) the landfill site is designed, developed, and operated to prevent permafrost degradation and to ensure all of the waste will freeze with the permafrost and remain frozen;

(2) a sufficient number of temperature sensing devices are installed and monitored to detect any thawing in the waste;

(3) oils, liquids from spill cleanups, and waste that is incompatible with freezeback will not be placed in the landfill; and

(4) after closure, the waste will remain frozen.

(b) The owner or operator of a landfill that is subject to this section shall monitor for temperature and erosion during the active life and during post-closure of the landfill.

(c) If any portion of a landfill that is subject to this section thaws during the active life or during the post-closure care period, the owner or operator shall take corrective measures to re-freeze the waste or begin groundwater monitoring and corrective action in compliance with 18 AAC 60.800 - 18 AAC 60.860.

(d) For a Class I MSWLF, the demonstration required by (a) of this section must also contain the demonstration required by 18 AAC 60.820(c).

History

History: Eff. 9/7/2002, Register 163

Annotations



Authority: AS 44.46.020  
AS 46.03.010  
AS 46.03.020  
AS 46.03.100  
AS 46.03.110  
AS 46.06.080

18 AAC 60.230. Disease vector, wildlife, and domestic animal control

Statute text

(a) The owner or operator of a facility subject to the permit requirements of AS 46.03.100 and this chapter shall manage the facility so that

(1) disease vectors do not endanger public health, safety, or welfare or create a nuisance;

(2) wildlife and domestic animals do not endanger public health, safety, or welfare; become harmed by contact with the waste; or become a nuisance; the requirements of this paragraph do not apply to a Class III MSWLF.

(b) The owner or operator of a Class III MSWLF shall minimize, to the extent practical, access by wildlife and domestic animals to putrescible waste deposited at the MSWLF.

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020  
AS 46.03.010  
AS 46.03.020  
AS 46.03.100  
AS 46.03.110  
AS 46.03.810  
AS 46.06.080

18 AAC 60.233. Controlling impacts outside facility boundaries

Statute text

The owner or operator of a landfill or solid waste treatment works shall ensure that

(1) a minimum setback of 50 feet is kept between the waste management area and the property line of the facility; and

(2) dust, odor, noise, traffic, and other effects from the operation of the facility do not become a nuisance or a hazard to the public health, safety, or welfare.

#### History

History: Eff. 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

#### 18 AAC 60.235. Recordkeeping requirements

##### Statute text

(a) The owner or operator of a facility subject to the permit requirements of this chapter shall maintain an "operating record." The record must be retained at a location that is readily accessible for department review and by employees working at the facility. The record must consist of

(1) the permit application and the permit;

(2) inspection records, training procedures, and notification procedures, if required by 18 AAC 60.240;

(3) any demonstration, certification, finding, monitoring, testing, or analytical data required by 18 AAC 60.800 - 18 AAC 60.860;

(4) any permit or record required under the Clean Water Act as that Act applies to leachate and stormwater discharges;

(5) financial assurance documentation, if required under 18 AAC 60.265;

(6) the operating plan required in 18 AAC 60.210(b)(3)(C);

(7) as-built drawings of the landfill; and

(8) any other documents required by this chapter to be kept in the operating record.

(b) Upon request, the owner or operator shall furnish the operating record to the department, or shall make it available at reasonable times for department inspection.

#### History

History: Eff. 1/28/96, Register 137; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.240. Procedures to exclude receipt of hazardous waste

#### Statute text

(a) The owner or operator of a landfill shall

(1) post a clearly legible sign at the entrance to the landfill notifying users that disposal of regulated hazardous waste and polychlorinated biphenyls (PCB) waste is prohibited; and

(2) provide written notification to the department and EPA if a regulated hazardous waste or PCB waste is found at the facility.

(b) Except for a Class III MSWLF, the owner or operator of a landfill shall implement a program at the facility to detect and prevent the disposal of regulated hazardous waste and PCB waste as defined in 40 C.F.R. 761.3, revised as of July 1, 1998, adopted by reference. The program must include the following items at a minimum:

(1) random inspections of incoming loads or other methods to minimize the risk that incoming loads will contain a regulated hazardous waste or PCB waste;

(2) maintenance of records of any inspections performed under (1) of this paragraph; and

(3) training of appropriate facility personnel to recognize regulated hazardous waste and PCB waste; for purposes of this paragraph, training may include that described in the EPA's technical manual entitled Solid Waste Disposal Facility Criteria, Subpart C Operating Criteria, EPA 530-R-93-017, November 1993, as amended through April 13, 1998.

(c) The requirements of this section do not apply to a facility that treats or disposes of biosolids and is subject to 18 AAC 60.500 - 18 AAC 60.510.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

Editor's note: The United States Environmental Protection Agency manual referred to in 18 AAC 60.240 may be reviewed at the department's offices in Anchorage, Fairbanks, and Juneau. Copies may be obtained from National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161.

18 AAC 60.243. Intermediate cover

#### Statute text

(a) Except for a facility that treats or disposes of biosolids and is subject to 18 AAC 60.500 - 18 AAC 60.510 and a facility for disposal of waste that has a permit under AS 46.03.100 and this chapter to contain fluids, the owner or operator of a landfill shall apply an intermediate cover to any inactive portion of a landfill within seven days after the waste is last deposited in that area, using a soil material at least 12 inches thick, graded to prevent water from ponding.

(b) For purposes of this section, "inactive portion" means an area of a landfill that does not receive waste for a period of 90 days or more.

#### History

History: Eff. 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.245. Prompt closure

Statute text

(a) Except where a different time is specified in 18 AAC 60.395(f) or is otherwise approved by the department, the owner or operator of a landfill shall place the final cover on those waste management areas that have reached final elevation within 90 days after the last waste placement.

(b) The requirements of this section do not apply to an inactive drilling waste disposal site.

History

History: Eff. 1/28/96, Register 137

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.250. Existing permits and permit renewal

Statute text

(a) In addition to the requirements of this section, permit renewal under this chapter is also subject to the permit renewal requirements of 18 AAC 15 and the fee requirements of 18 AAC 60.700.

(b) If an applicant for permit renewal must undertake a construction project or needs additional time to install monitoring or other equipment, the department will negotiate a compliance schedule as part of the renewal.

(c) An application for permit renewal must be submitted at least 30 days before the permit expires.

#### History

History: Eff. 1/28/96, Register 137; am 6/28/96, Register 138; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.255. General permit

#### Statute text

(a) The department will issue a general permit covering a group of facilities subject to the permit requirements of this chapter, or to a group of activities, if the facilities or activities in the group

(1) involve the same type of waste handling systems;

(2) dispose of the same type of solid waste;

(3) will not threaten public health, safety, welfare, or the environment; and

(4) are, in the department's determination, best regulated under a general permit.

(b) The department will restrict a general permit to a limited region of the state if the department determines that the safe management and disposal of the waste depends on conditions found in that region and a general permit will protect the public health, safety, welfare, and the environment.

(c) An applicant for a general permit shall submit to the department a petition in which the applicant demonstrates that the facilities or activities to be covered meet the conditions described in (a) of this section. If the proposed general permit will authorize activities that are located in or may affect a coastal zone, the applicant shall also complete and submit the coastal project questionnaire required by 6 AAC 50.070. A general permit may be sought by a single owner or operator, but the department will give priority to applications jointly submitted by two or more owners or operators of facilities that would be subject to the general permit. If the department approves an application for a general permit under this section or, on its own motion, proposes to create a general permit, the department will publish notice of the proposed permit in two issues of a newspaper of general circulation in the area where the waste management is to take place and in other media that the department considers appropriate. The notice will summarize the proposed permit, state where the waste management is to be allowed, state the fee type described in (i) of this section, state where copies of the proposed permit and supporting documents may be obtained, and state that any person who wants to express an opinion to the department may send written comments to the department within 30 days. The department will send a copy of the public notice and the proposed general permit and supporting documents to the commissioners of

(1) fish and game;

(2) natural resources;

(3) deleted;

(4) commerce, community, and economic development; and

(5) health and social services.

(d) After the time for public comment expires, the department will grant or deny the application for a general permit or, if the general permit is one proposed by the department, will issue the permit, or decide to take no action on the proposal. A copy of the department's decision will be sent to the applicant and to any person who submitted written comments on the proposed general permit. The decision will include a statement that any person who is aggrieved by the decision may request an adjudicatory hearing under 18 AAC 15.

(e) A general permit will contain criteria by which facilities may qualify for coverage under the general permit. A person who seeks to be covered under a general permit issued under this section may submit an application to the department on a form provided by the department or in accordance with the conditions of the general permit. The application must be accompanied by the annual fee identified in Table I-5 in 18 AAC 60.700(a) for the type of general permit specified in the public notice under (c) of this section. In addition, the application must

(1) be submitted within the time period identified in the form for the general permit under which coverage is sought; and

(2) clearly show how the proposed activity meets the criteria and conditions of the general permit.

(f) The department will notify the applicant of its decision to grant or deny an application for coverage under a general permit within 30 days after receiving a complete application under (e) of this section.

(g) Upon 30-days written notice to the permittee, the department will modify, revoke and reissue, or terminate the coverage of a general permit to a specific facility without opportunity for a pre-revocation hearing, and will require that facility to obtain an individual permit if operations under the general permit might threaten public health or the environment. Situations indicative of such a threat include the following:

(1) the facility does not comply with a material provision of the general permit;

(2) there is a material change in the operation or in the type or quantity of waste for which the general permit was issued; or

(3) the permit was procured by misrepresentation of material fact or by failure of the applicant to fully disclose the material facts relating to its issuance.

(h) Notwithstanding 18 AAC 15.195 - 18 AAC 15.340, a person who disagrees with a department action taken under (g) of this section may request review by the director of the department's division responsible for issuing permits under this chapter. A request under this subsection must be submitted within 30 days after the action is taken and must be accompanied by a written discussion that sets out the reasons why the department's action is thought to be erroneous. The director shall issue a written decision on the



matter within 30 days after receiving the request. A decision under this subsection is a final agency decision subject to judicial review under the applicable Rules of Appellate Procedure.

(i) The department will designate a general permit as

(1) Type A, if the average time anticipated for review of an application to operate under the general permit is under 3 hours;

(2) Type B, if the average time anticipated for review of an application to operate under the general permit is 3 or more hours but under 5 hours;

(3) Type C, if the average time anticipated for review of an application to operate under the general permit is 5 or more hours but under 8 hours; and

(4) Type D, if the average time anticipated for review of an application to operate under the general permit is 8 or more hours.

(j) Beginning with the calendar year following the department's approval of an application for coverage under a general permit, the owner or operator shall pay the applicable annual fee within 60 days after the date of billing.

#### History

History: Eff. 1/28/96, Register 137; am 6/28/96, Register 138; am 10/29/98, Register 148; am 6/30/2002, Register 162; am 7/11/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.010

AS 46.06.080

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 171 (October 2004), 18 AAC 60.255(c)(3) was deleted by the regulations attorney because that paragraph was redundant with 18 AAC 60.255(c)(4).

#### 18 AAC 60.260. Permit modification and revocation

##### Statute text

(a) Except for a general permit subject to modification or revocation under 18 AAC 60.255, the department will

(1) revoke a permit issued under this chapter if

(A) the permittee violates an applicable state law or a condition of the permit, including a violation that results in a threat to public health or the environment;

(B) there is a material change in the operation or in the type or quantity of waste for which the permit was issued; or

(C) the permit was procured by misrepresentation of material fact or by the applicant's failure to fully disclose a material fact; or

(2) modify a permit issued under this chapter if the permitted operation causes or contributes to a material change in the quality of water of the state.

(b) A notice under (a) of this section will be issued no less than 30 days before the modification or revocation is to become effective. The notice will

(1) include a clear, detailed statement describing reasons for the department's decision, including acts or omissions of the permittee that led to the department's decision to modify or revoke;

(2) clearly specify the statute, regulation, or permit condition the permittee is alleged to have violated, including the nature of the violation; and

(3) state that the permittee may request an immediate hearing before the commissioner or the commissioner's designee, if the request is submitted to the commissioner within 10

days after receipt of the notice; a request for hearing must include a written statement of reasons why the permittee believes the department's decision to be in error; failure to file a timely request for hearing constitutes a waiver of the permittee's right to a hearing.

(c) A hearing under this section will be held within 10 days after a request for hearing is received under (b) of this subsection, and the commissioner or the commissioner's designee will issue a written decision within 10 days after the hearing. A decision under this subsection is a final agency decision subject to judicial review. A hearing under this section will be recorded and will adhere to the evidence rules described in AS 44.62.460.

(d) If the permittee and the department agree to delay the hearing for more than 30 days after the notice is issued under (a) of this section, the department's decision remains in effect unless the permittee requests and is granted a stay by the commissioner or commissioner's designee. A request for a stay must meet the requirements of 18 AAC 15.210.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.120

AS 46.03.820

AS 46.03.850

AS 46.35.090(e)

#### 18 AAC 60.265. Proof of financial responsibility

##### Statute text

Unless the applicant has provided equivalent surety through a government agency or has demonstrated financial assurance under 18 AAC 60.398, the department will require proof of financial responsibility to cover the cost of closing a landfill and, if monitoring is required, the cost of post-closure monitoring, if the department determines proof of financial responsibility is necessary to protect the public health, safety, welfare, or the environment. Proof of financial responsibility under this section may be demonstrated by self-insurance, insurance, surety, or other guarantee approved by the department to assure compliance with applicable closure standards and post-closure monitoring requirements.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.03.830

AS 46.06.080

18 AAC 60.270. Termination of post-closure obligations

Statute text

(a) Whether or not a permit required by this chapter has been issued, once waste disposal commences at a facility subject to this chapter, the owner and operator are subject to all applicable provisions of this chapter until the owner or operator of the facility requests, and is granted approval by the department to terminate post-closure care required by 18 AAC 60.396, 18 AAC 60.397, or 18 AAC 60.490.

(b) Within 30 days after receipt of a complete request, the department will review a request for approval to terminate post-closure care under the requirements of this chapter. The request must include

(1) a report on the findings of the post-closure monitoring;

(2) drawings, photographs, and other documentation concerning the condition of the landfill at the time of the request; and

(3) an analysis of any potential problems at the landfill, including settlement, erosion, cracking, and slope instability, and what evidence will indicate a problem has developed.

(c) The department will approve a request to terminate the post-closure care requirements if the department finds that the facility does not pose a threat to public health, safety, or welfare, or to the environment.

(d) If the department, after it approves a request under (c) of this section, determines that the circumstances under which the approval was granted have changed to the extent that the facility that was granted approval under (c) of this section poses a threat to public health, safety, or welfare, or to the environment, the owner or operator of the facility must comply with the provisions of 18 AAC 60.800 - 18 AAC 60.860.

## History

History: Eff. 9/7/2002, Register 163

## Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

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## Article 3

### Municipal Solid Waste Landfills

#### Section

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395. Closure standards for a Class I or Class II MSWLF.

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398. Financial assurance for a Class I or Class II MSWLF.

18 AAC 60.300. Purpose, scope, and applicability; classes of MSWLF

#### Statute text

(a) The purpose of 18 AAC 60.300 - 18 AAC 60.397 is to establish minimum standards for owners and operators of municipal solid waste landfills (MSWLF). Location standards are established in 18 AAC 60.305 - 18 AAC 60.320. Design standards are established in 18 AAC 60.330. Operating standards, which must be applied in conjunction with 18 AAC 60.220 - 18 AAC 60.240, are established in 18 AAC 60.335 - 18 AAC 60.380. Closure standards, which must be applied in conjunction with 18 AAC 60.245, are established in 18 AAC 60.385 - 18 AAC 60.397.

(b) Except as otherwise specifically provided in this chapter, the standards described in (a) of this section apply to the owner or operator of a new or existing MSWLF or a lateral expansion.

(c) A Class I, Class II, and Class III MSWLF shall meet the specific requirements of 18 AAC 60.305 - 18 AAC 60.397. For purposes of this chapter, classifications are as follows:

(1) a Class I MSWLF is a landfill that

(A) accepts, for incineration or disposal, 20 tons or more of municipal solid waste and other solid wastes daily, based on an annual average; or

(B) does not qualify as a Class II or Class III MSWLF;

(2) a Class II MSWLF is a landfill that

(A) accepts, for incineration or disposal, less than 20 tons daily of municipal solid waste and other solid wastes based on an annual average;

(B) is located on a site where there is no evidence of groundwater pollution caused or contributed to by the landfill;

(C) is not connected by road to a Class I MSWLF or, if connected by road, is located more than 50 miles from a Class I MSWLF; and

(D) serves a community

(i) that experiences, for at least three months each year, an interruption in access to surface transportation, preventing access to a Class I MSWLF; or

(ii) with no practicable waste management alternative, with a landfill located in an area that annually receives 25 inches or less of precipitation; and

(3) a Class III MSWLF is a landfill that is not connected by road to a Class I MSWLF or, if connected by road, is located more than 50 miles from a Class I MSWLF, and that accepts, for disposal,

(A) ash from incinerated municipal waste in quantities less than one ton daily on an annual average, which ash must be free of food scraps that might attract animals; or

(B) less than five tons daily of municipal solid waste, based on an annual average, and is not located in a place

(i) where public access is restricted, including restrictions on the right to move to the place and reside there; or

(ii) that is provided by an employer and that is populated totally by persons who are required to reside there as a condition of employment and who do not consider the place to be their permanent residence.

(d) Under a schedule approved by the department, but no more than two years after a

(1) Class II MSWLF exceeds the limits set in (c)(2) of this section, the Class II MSWLF must meet the requirements for a Class I MSWLF; or

(2) Class III MSWLF exceeds the limits set in (c)(3) of this section, the Class III MSWLF must meet the requirements for a Class II MSWLF.

(e) In addition to receiving household waste, a MSWLF may also receive other types of waste regulated under 42 U.S.C. 6941 - 6949a (RCRA, Subtitle D), such as commercial solid waste, nonhazardous sludge, and industrial solid waste; a MSWLF may be publicly or privately owned.

(f) The owner or operator must provide written notification to the department within seven days after the owner or operator learns that a MSWLF has polluted, or may have polluted, an aquifer.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.305. Airport safety

#### Statute text

(a) The owner or operator of a new or existing MSWLF or a lateral expansion located within 10,000 feet of an airport runway end used by turbojet aircraft, or within 5,000 feet of an airport runway end used by only piston-type aircraft, shall demonstrate that the MSWLF is designed and operated so that it does not pose a bird hazard to aircraft.

(b) An owner or operator proposing to site a new MSWLF or a lateral expansion within a five-mile radius of an airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration at the time the permit application is submitted to the department.

(c) The owner or operator shall retain the documentation used to satisfy (a) of this section in the operating record.

(d) In this section,

(1) "airport" means a place for the landing and take-off of aircraft, which place is open to the public without prior permission; and



(2) "bird hazard" means an increase in the likelihood of bird-aircraft collisions that might cause damage to the aircraft or injury to its occupants.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

#### 18 AAC 60.310. Floodplains

##### Statute text

(a) The owner or operator of a new or existing MSWLF or a lateral expansion located in a 100-year floodplain shall demonstrate that the MSWLF will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste that would pose a hazard to public health or the environment.

(b) The owner or operator shall retain the documentation used to satisfy (a) of this section in the operating record.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

#### 18 AAC 60.315. Wetlands

##### Statute text

A new MSWLF or a lateral expansion of an existing MSWLF may not be located in wetlands, unless the owner or operator demonstrates that

(1) to the extent required by or under 33 U.S.C. 1344 (Clean Water Act, section 404), as amended through December 6, 1995, there is no practical alternative landfill site available except other wetlands;

(2) construction and operation of the MSWLF will not

(A) cause or contribute to a violation of an applicable water quality standard under 18 AAC 70;

(B) violate an applicable toxic effluent standard or prohibition set out in, or established under, 33 U.S.C. 1317 (Clean Water Act, section 307), as amended through December 6, 1995;

(C) jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of a critical habitat protected under 16 U.S.C. 1531 - 1544 (Endangered Species Act of 1973), as amended through December 6, 1995; and

(D) violate a requirement of 33 U.S.C. 1401 - 1445 (Marine Protection, Research, and Sanctuaries Act of 1972), as amended through December 6, 1995, for the protection of a marine sanctuary;

(3) the MSWLF will not cause or contribute to significant degradation of wetlands; the owner or operator shall demonstrate the integrity of the MSWLF and its ability to protect ecological resources by addressing

(A) erosion, stability, and migration potential of

(i) native wetland soils, muds, and deposits used to support the MSWLF; and

(ii) dredged and fill materials used to support the MSWLF;

(B) the volume and chemical nature of the waste managed in the MSWLF;

(C) effects on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;

(D) potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and

(E) any additional factors necessary to demonstrate that ecological resources in the wetland are sufficiently protected;

(4) to the extent required under 33 U.S.C. 1344 (Clean Water Act, section 404), as amended through December 6, 1995, or applicable state wetlands laws, steps have been taken to achieve no net loss of wetlands, as defined by acreage and function, by first avoiding impacts to wetlands to the maximum extent practical, then minimizing unavoidable impacts to the maximum extent practical, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practical compensatory mitigation actions such as restoration of existing degraded wetlands or creation of manmade wetlands; and

(5) sufficient information is available to fully support the demonstrations required under this section.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.320. Fault areas, seismic impact zones, and unstable areas

#### Statute text

(a) A new Class I MSWLF or a lateral expansion of an existing Class I MSWLF may not be located

(1) within 200 feet of a fault visible at the surface or shown on a published topographical or geological map, that has had displacement in Holocene time, unless the owner or

operator demonstrates that an alternative setback distance of less than 200 feet will prevent damage to the structural integrity of the MSWLF and will protect public health and the environment; or

(2) in a seismic impact zone, unless the owner or operator demonstrates that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in the lithified earth material for the site, as affected by site conditions, so that the landfill will continue to control pollution.

(b) The owner or operator of a new or existing MSWLF or a lateral expansion located in an unstable area shall demonstrate that engineering measures have been incorporated into the MSWLF's design to ensure that the integrity of the structural components of the MSWLF will not be disrupted. The owner or operator shall consider, at a minimum, the following factors to determine whether an area is unstable:

(1) known onsite or local soil conditions that more likely than not will result in differential settling or ground failure under static conditions during an earthquake;

(2) known onsite or local geologic or geomorphologic features that pose a potential risk to the integrity of containment structures; and

(3) known onsite or local human-made surface and subsurface features or events.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.325. Permafrost landfills

#### Statute text

Repealed.

## History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; repealed 9/7/2002, Register 163

## 18 AAC 60.330. Design standards

### Statute text

(a) The design standards in this section supplement 18 AAC 60.220 - 18 AAC 60.230 and apply to a new Class I MSWLF or lateral expansion of an existing Class I MSWLF or a landfill that accepts polluted soil. These design standards apply to a Class II MSWLF and, if the department so decides, to a Class III MSWLF, only if the department

(1) has evidence that leachate from the site is polluting an aquifer of resource value; or

(2) finds that a liner and leachate collection system of appropriate design is necessary to protect public health or the environment.

(b) The owner or operator of a MSWLF subject to this section shall ensure that the MSWLF is constructed

(1) in accordance with a design approved by the department; the design must ensure that the maximum contaminant levels listed in 40 C.F.R. 258.40, Table 1, as amended through December 6, 1995, adopted by reference in this chapter, will not be exceeded in the uppermost aquifer at the relevant point of compliance, established in accordance with 18 AAC 60.825(c); or

(2) with a composite liner, described in (c) of this section, and a leachate collection system designed and constructed to maintain less than a 12-inch head of leachate over the liner.

(c) For purposes of (b)(2) of this section, a composite liner consists of a flexible membrane liner (FML) installed on top of, and in direct and uniform contact with a compacted soil layer. The FML must be at least 30 mils thick unless it is made of high density polyethylene (HDPE), which must be at least 60 mils thick. The compacted soil component layer must be at least two feet thick and must have a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second.

(d) In approving a design under (b)(1) of this section, the department will consider at least the following factors:

(1) the hydrogeologic characteristics of the facility and surrounding land;

(2) the climatic factors of the area; and

(3) the volume and physical and chemical characteristics of the leachate.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.333. Air quality control

#### Statute text

In addition to the applicable requirements of AS 46.03 and this chapter, certain MSWLFs are subject to applicable permit and other requirements of 18 AAC 50 dealing with air quality control if

(1) the landfill accepted waste on or after November 8, 1987; and

(2) the landfill design capacity meets either of the following:

(A) 2.5 million megagrams or larger; or

(B) 2.5 million cubic meters or larger.

#### History

History: Eff. 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020  
AS 46.03.080

18 AAC 60.335. Minimum operator qualifications for a Class I MSWLF

Statute text

A Class I MSWLF must have at least one qualified landfill operator or manager on its staff at all times. For purposes of this section, "qualified" means a person who

(1) has at least two years of experience in operating or managing a landfill; and

(2) maintains a current certification as a landfill operator or manager from the Solid Waste Association of North America, or an equivalent certification approved by the department.

History

History: Eff. 1/28/96, Register 137

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

18 AAC 60.340. Cover material requirements for a Class I or Class II MSWLF

Statute text

(a) Except as provided in (b) - (d) of this section, the owner or operator of a Class I or Class II MSWLF shall cover solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary to control disease vectors, fire, odor, blowing litter, animals, or scavenging.

(b) A solid waste management unit at a Class I or Class II MSWLF that is being filled with municipal waste combustion ash need not be covered unless blowing dust causes or contributes to a nuisance or a violation of the air quality standards of 18 AAC 50, or unless animals are feeding on unburned scraps in the waste. A municipal waste combustion ash monofill must be graded so that the surface will shed water.

(c) The department will approve an alternative material of an alternative thickness, other than that specified in (a) of this section, if the owner or operator demonstrates that the alternative material and thickness will control disease vectors, wildlife attraction, fire,

odor, blowing litter, and scavenging, without posing a threat to public health or the environment.

(d) The department will waive the requirements of this section if the owner or operator demonstrates that there are extreme seasonal climatic conditions that make meeting the requirements impractical and that public health and the environment will not be adversely affected.

(e) The vertical face of a bale fill may remain uncovered unless the face exceeds 200 linear feet, has been inactive for at least seven days, or is causing animal attraction problems.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.345. Cover material, working face, and litter control requirements for a Class III MSWLF

#### Statute text

(a) The owner or operator of a Class III MSWLF shall cover disposed solid waste with six inches of earthen material, or an alternate material approved by the department, as needed to control disease vectors, fire, odor, blowing litter, and scavenging.

(b) The owner or operator shall ensure that the working face of the landfill is kept as small as practical to reduce the potential for windblown litter or attraction of birds and animals.

(c) The owner or operator shall ensure that litter is

(1) controlled by fencing or another approved means; and



(2) removed from access roads and other areas of the facility.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

AS 46.14.110

18 AAC 60.350. Control of explosive gases

#### Statute text

(a) The owner or operator of a Class I or Class II MSWLF shall ensure that the concentration of methane gas generated by the facility does not exceed

(1) 25 percent of the lower explosive limit for methane in facility structures, excluding gas control or recovery system components; and

(2) the lower explosive limit for methane at the facility property boundary.

(b) The owner or operator of a MSWLF that contains more than 30,000 cubic yards of municipal solid waste, not including ash from a municipal solid waste incinerator, shall implement a routine methane monitoring program to ensure that the maximum allowable concentrations established in (a) of this section are not exceeded in any structure where the release of a gas is because of the landfill. The type and frequency of monitoring must be at least quarterly and must be based on the following factors:

(1) soil conditions;

(2) the hydrogeologic conditions underlying the facility and adjacent property;

(3) the hydraulic conditions underlying the facility and adjacent property; and

(4) the location of facility structures and property boundaries.

(c) If methane gas levels exceeding the limits set in (a) of this section are detected, the owner or operator shall immediately notify the department by telephone and in writing, and shall take all necessary steps to reduce or dissipate the concentrations of methane to ensure the public health, safety, and welfare.

(d) Within 60 days after detection under (c) of this section, the owner or operator shall implement a long-term remediation plan for the methane gas releases, place a copy of the plan in the operating record, and submit written notification to the department that the plan has been implemented.

(e) The owner or operator of a MSWLF that contains less than 30,000 cubic yards of municipal solid waste, not including ash from a municipal solid waste incinerator, shall institute an explosive gas control program in compliance with this section if the department finds that gas control or monitoring is necessary to ensure that there will be no explosion hazard.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

18 AAC 60.355. Open burning

#### Statute text

Notwithstanding any rule of 18 AAC 50 that permits open burning, open burning is prohibited at a Class I or Class II MSWLF.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100  
AS 46.03.110  
AS 46.03.810

18 AAC 60.360. Liquids restrictions

Statute text

(a) Bulk or noncontainerized liquid waste may not be placed in a MSWLF unless the waste is

(1) household waste other than septage; or

(2) leachate or gas condensate derived from the MSWLF, and the MSWLF is designed with a bottom liner that meets the standard set in 18 AAC 60.330(c).

(b) A container holding liquid waste may not be placed in a MSWLF unless the container holds one gallon of liquid or less.

(c) The site operator shall keep records of leachate recirculation, including how much leachate was returned to the waste and when it was returned.

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.365. Co-disposal of sewage solids

Statute text

(a) The requirements of this section apply to the owner or operator of a municipal solid waste landfill that co-disposes of sewage solids within the boundaries of the MSWLF.

(b) Sewage solids may not be placed in an active MSWLF if they are regulated hazardous wastes, are regulated under 18 AAC 60.020(a), or if they contain

concentrations of polychlorinated biphenyls (PCB) wastes defined in 40 C.F.R. 761.3, revised as of July 1, 1998, adopted by reference.

(c) Sewage solids may not be placed in an active MSWLF if they contain "free liquids" as defined by EPA Method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (SW 846), Third Edition, including Final Update III (December 1996), adopted by reference.

(d) If sewage solids are placed in a MSWLF, the owner or operator shall meet the vector reduction requirement in 40 C.F.R. 503.33(b)(11), adopted by reference in 18 AAC 60.505, or one of the

(1) Class A or Class B pathogen reduction requirements in 40 C.F.R. 503.32, adopted by reference in 18 AAC 60.505; and

(2) the vector attraction reduction requirements of 40 C.F.R. 503.33(b)(1) - (10), adopted by reference in 18 AAC 60.505.

(e) The owner or operator of a Class III MSWLF may dispose of up to 2,500 gallons of septage per day in trenches at the landfill if the owner or operator

(1) constructs and fills one septage disposal trench at a time, ensuring that the trench has at least one square foot of wetted surface for each gallon of material disposed on any day;

(2) maintains at least a four-foot separation distance between the seasonal high groundwater and the base of the trench;

(3) constructs each trench in sandy soil with a hydraulic conductivity no less than  $1 \times 10^4$  centimeters per second and no greater than one centimeter per second;

(4) adds hydrated lime or quicklime in a dry form so that a pH of 12 is maintained in the septage for at least 30 minutes; and

(5) ensures that septage does not overflow the trench or accumulate more than four feet in depth of liquid.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

Editor's note: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (SW-846), adopted by reference in 18 AAC 60.365 is available from National Technical Information Services, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. It may also be reviewed at the department's Anchorage, Fairbanks, and Juneau offices, and is on file in the Lieutenant Governor's Office.

18 AAC 60.370. Controlling effects outside facility boundary

#### Statute text

Repealed.

#### History

History: Eff. 1/28/96, Register 137; repealed 10/29/98, Register 148

18 AAC 60.375. Corrective action at a MSWLF

#### Statute text

The owner or operator of a MSWLF shall implement corrective action at the facility when required by 18 AAC 60.815, 18 AAC 60.820, or 18 AAC 60.860.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.800

AS 46.03.810

AS 46.09.020

## 18 AAC 60.380. MSWLF recordkeeping requirements

### Statute text

In addition to the requirements of 18 AAC 60.235, the owner or operator of a MSWLF shall keep the following records, if applicable, in the facility's operating record:

- (1) a location restriction demonstration as required under 18 AAC 60.305 - 18 AAC 60.320;
- (2) records of gas monitoring and corrective action related to gas problems as required in 18 AAC 60.350.
- (3) the documentation collected in support of a request for reduction in frequency of gas monitoring and any remediation plan required by 18 AAC 60.350;
- (4) leachate recirculation records as required by 18 AAC 60.360(c).

### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

## 18 AAC 60.385. Closure of existing MSWLF

### Statute text

- (a) The owner or operator of a MSWLF existing on 1/28/96, who cannot make the demonstration required by AAC 60.305 regarding airports, 18 AAC 60.310 regarding floodplains, or 18 AAC 60.320(b) regarding unstable areas shall close the MSWLF within one year after that date. Closure must be consistent with the requirements of 18 AAC 60.245 and, as applicable, 18 AAC 60.390 or 18 AAC 60.395, and shall include post-closure care as required by 18 AAC 60.397.
- (b) The department will extend the deadline for closure required by (a) of this section for up to two years if the owner or operator demonstrates that there is no

(1) available alternative disposal capacity; and

(2) immediate threat to public health or the environment.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.390. Closure standards for a Class III MSWLF

#### Statute text

(a) Closure of a Class III MSWLF must conform to the closure plan submitted under 18 AAC 60.210(b)(3)(E). The final cover on a Class III MSWLF must be soil or another material approved by the department. The final cover must be at least 24 inches thick, or another thickness approved by the department, must be graded to promote drainage without erosion, and must be revegetated or otherwise treated in a manner appropriate to the anticipated, future long-term use of the facility.

(b) Within 90 days after closure of a Class III MSWLF, the owner or operator shall submit written notification to the department that closure has been completed as required by (a) of this section.

(c) The owner or operator shall establish permanent markers or survey monuments, if there are no readily observable, existing monuments or markers, from which the exact location of a facility and each closed portion of the facility can be determined.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110  
AS 46.03.800  
AS 46.03.810  
AS 46.06.080

18 AAC 60.395. Closure standards for a Class I or Class II MSWLF

Statute text

(a) Closure of a Class I or Class II MSWLF must conform to the closure plan prepared under (c) of this section and submitted under 18 AAC 60.210(b)(3)(E). The owner or operator of a Class I or Class II MSWLF shall install a final cover system designed to minimize infiltration and erosion. The final cover system must be designed and constructed to

(1) have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils;

(2) minimize infiltration through the closed MSWLF by use of an infiltration layer that contains a minimum of 18 inches of earthen material with a permeability no greater than  $1 \times 10^{-5}$  centimeters per second; and

(3) minimize erosion of the final cover by use of an erosion layer that contains a minimum of six inches of earthen material capable of sustaining native plant growth.

(b) The department will approve an alternative final cover design if the applicant demonstrates that the proposed design will protect public health and the environment and that it includes an

(1) infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in (a) of this section; and

(2) erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in (a)(3) of this section.

(c) The owner or operator of a Class I or Class II MSWLF shall prepare a written closure plan that describes the steps necessary to close that person's MSWLF at any point during its active life in accordance with the cover design requirements of (a) or (b) of this section, as applicable. In addition to the information required by 18 AAC 60.210(b)(3)(E), the closure plan must include



(1) a description of the final cover, designed in accordance with (a) or (b) of this section, as applicable, and the methods and procedures to be used to install the cover;

(2) an estimate of the largest area of the MSWLF ever likely to require a final cover;

(3) an estimate of the maximum inventory of wastes ever likely to be onsite over the active life of the facility; and

(4) a schedule for completing all activities necessary to satisfy the closure standards in this section.

(d) Repealed 9/7/2002.

(e) Before beginning closure of a Class I or Class II MSWLF as specified in (f) of this section, the owner or operator shall submit written notification to the department of the intent to close the MSWLF.

(f) Notwithstanding 18 AAC 60.245(a), the owner or operator shall begin closure activities of a Class I or Class II MSWLF no later than 30 days after the date on which the MSWLF stops accepting waste or, if the MSWLF has remaining capacity and there is an investment-backed expectation that the MSWLF will receive additional waste, no later than one year after the most recent receipt of waste. The department will extend the one-year deadline for beginning closure if the owner or operator demonstrates that the MSWLF has the capacity to receive additional waste, and the owner or operator demonstrates a genuine intent to reopen the landfill and that, while temporarily closed, the owner or operator has taken and will continue to take all steps necessary to protect public health and the environment.

(g) The owner or operator of a Class I or Class II MSWLF shall complete closure activities of the MSWLF in accordance with the closure plan and within 180 days after beginning closure. The department will extend the closure period if the owner or operator demonstrates that it is not economically or practically feasible to complete closure in 180 days and the owner or operator has taken and will continue to take all steps necessary to protect public health and the environment.

(h) After closure of a Class I or Class II MSWLF, the owner or operator shall submit written notification to the department that a certification verifying completion of closure in accordance with the closure plan has been placed in the operating record. The certification must be signed and sealed by a registered engineer or must be approved by the department.

(i) After closure of a Class I or Class II MSWLF, the owner or operator shall record a notation on the deed to the landfill facility property, or some other instrument that is normally examined during a title search, and submit written notification to the department and the landowner that the notation has been recorded and that a copy has been placed in the operating record. The notation on the deed must, in perpetuity, notify any potential purchaser of the property that

(1) the land was used as a MSWLF; and

(2) use of the land is restricted under 18 AAC 60.397(c)(3).

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

#### 18 AAC 60.396. Post-closure care requirements for a Class III MSWLF

##### Statute text

(a) For at least 60 consecutive months immediately following the closure of a Class III MSWLF, the owner or operator shall conduct visual inspections of the facility at least once every 12 months as described in 18 AAC 60.800. If surface water or groundwater monitoring was required by the department during the active life of the MSWLF, those activities must continue during the post-closure period for visual inspections required under this section.

(b) As soon as practicable, but no later than the conclusion of the post-closure period for visual inspection required under (a) of this section, the owner or operator shall record a notation on the deed to the property for the facility, or some other instrument that is routinely examined during a title search. The owner or operator shall provide written notification to the department and the landowner that the notation required by this subsection has been recorded and that a copy has been placed in the operating record of the facility. The notation on the deed or other instrument must notify, in perpetuity, any potential purchaser or lease holder of the property that

(1) the property was used as a Class III MSWLF;

(2) the property may not be suitable for some uses;

(3) maintenance and repairs to the property might become necessary to prevent pollution problems at the site; and

(4) any activity that results in damage to the final cover of the property must be corrected to control potential pollution problems.

(c) After the conclusion of the post-closure period for visual inspections required under (a) of this section, the owner or operator shall submit a report to the department that contains

(1) photographs of the facility;

(2) a description of any problems detected during visual monitoring; and

(3) all water monitoring data collected.

#### History

History: Eff. 10/29/98, Register 148; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800  
AS 46.03.810  
AS 46.06.080

18 AAC 60.397. Post-closure care requirements for a Class I or Class II MSWLF

Statute text

(a) Except as provided in (b) of this section, after closure of a Class I or Class II MSWLF, the owner or operator shall conduct post-closure care for at least 30 years. At a minimum, the owner or operator shall, as part of post-closure care,

(1) maintain the integrity and effectiveness of any final cover, including

(A) making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events; and

(B) preventing run-on and run-off from eroding or otherwise damaging the final cover;

(2) maintain and operate any existing leachate collection system constructed under 18 AAC 60.330 or 18 AAC 60.375; the department will allow the owner or operator to stop managing leachate if the owner or operator demonstrates that leachate no longer poses a threat to public health or the environment;

(3) monitor the groundwater as required by 18 AAC 60.820 - 18 AAC 60.860, and maintain the groundwater monitoring system, if applicable; and

(4) maintain and operate any existing gas monitoring system as implemented under 18 AAC 60.350.

(b) The length of the post-closure care period will be

(1) decreased if the owner or operator demonstrates that the reduced period is sufficient to protect public health and the environment; or

(2) increased if the department finds that a longer period is necessary to protect public health and the environment.

(c) The owner or operator of a Class I or Class II MSWLF shall prepare a written post-closure plan that includes, at a minimum, the following information:

(1) a description of the monitoring and maintenance activities required under (a) of this section for each Class I or Class II MSWLF, and the frequency at which these activities will be performed;

(2) the name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(3) a description of the planned uses of the property during the post-closure period; post-closure use of the property may not disturb the integrity of the final cover, liner, or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this chapter; the department will approve any other disturbance if the owner or operator demonstrates that disturbance of the final cover, liner, or other component of the containment system, including removal of waste, will not increase the potential threat to public health or the environment.

(d) If the owner or operator of a Class I or Class II MSWLF does not have an approved post-closure plan, a post-closure plan must be submitted to the department and placed in the operating record no later than April 28, 1996.

(e) After completion of the post-closure care period for a Class I or Class II MSWLF, the owner or operator shall certify to the department that post-closure care has been completed in accordance with the post-closure plan. The certification must be signed and sealed by a registered engineer or must be approved by the department.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.06.080

18 AAC 60.398. Financial assurance for a Class I or Class II MSWLF

#### Statute text

The owner or operator of a Class I or a Class II MSWLF shall meet the financial assurance requirements of 40 C.F.R. 258, Subpart G, revised as of July 1, 1998, adopted by reference.

#### History

History: Eff. 10/29/98, Register 148; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

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#### Article 4

#### Monofills

#### Section

400. Applicability.

410. Location standards.

420. Operations.

430. Drilling waste.

440. Closure of inactive reserve pits.

450. Asbestos.

455. Mining waste.

460. Inert waste.

470. Sewage solids.

480. Wood waste.

485. Industrial solid waste.

490. Closure demonstration and post-closure care.

495. (Repealed).

18 AAC 60.400. Applicability

#### Statute text

(a) In addition to the requirements of 18 AAC 60.005 - 18 AAC 60.265 and 18 AAC 60.800 - 18 AAC 60.860, the requirements of 18 AAC 60.400 - 18 AAC 60.495 apply to a person who disposes of waste that is subject to the permit requirement of AS 46.03.100, but that is not

- (1) municipal solid waste subject to 18 AAC 60.300 - 18 AAC 60.397;
  - (2) regulated hazardous waste or waste identified as hazardous waste under 18 AAC 62.020;
  - (3) being disposed of under a wastewater disposal permit issued under 18 AAC 72; or
  - (4) subject to a plan approved under 18 AAC 75 or 18 AAC 78 for oil or other hazardous substances.
- (b) A solid waste that is not specifically addressed in 18 AAC 60.400 - 18 AAC 60.495 will be classified by the department and assigned the most applicable waste category during the waste planning process of 18 AAC 60.205 or the preapplication meeting conducted under this chapter.
- (c) If an applicant is not sure which type of landfill standards apply, the applicant shall contact the department for a determination before applying for a permit.
- (d) Repealed 10/29/98.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 8/8/2003, Register 167

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

#### 18 AAC 60.410. Location standards

#### Statute text

- (a) A monofill built after 1/28/96 may not be constructed on slopes greater than 10 percent grade or unstable soils that might cause the waste to slide or settle excessively.

(b) Except for a mining waste tailings impoundment operating under a permit issued by the department, the owner or operator of a monofill located in a floodplain shall remove the waste or ensure that the monofill

(1) does not restrict the flow of a flood or significantly reduce the temporary water storage capacity of the floodplain; and

(2) is designed to protect against washout of solid waste from the facility.

(c) A new monofill, or a lateral expansion of a monofill, that is subject to 18 AAC 60.400 - 18 AAC 60.495 must be designed to protect its integrity from damage caused by natural events that could be reasonably anticipated to occur at the facility, such as aufeis, floods, earthquakes, thawing of unstable permafrost, and the effects of freezing and thawing.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

#### 18 AAC 60.420. Operations

#### Statute text

(a) A monofill must be operated so that

(1) dust, odor, noise, traffic, and other effects from facility operations do not become a nuisance or hazard to the health, safety, or property of persons outside the boundary of the facility; and

(2) litter is controlled by fencing or another approved means, and is removed from access roadways and other areas in the facility.

(b) Except for drilling wastes, bulk liquid wastes and containerized liquid wastes may not be placed in a monofill unless authorized by a permit issued by the department.



## History

History: Eff. 1/28/96, Register 137

## Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

## 18 AAC 60.430. Drilling waste

### Statute text

(a) Except for an inactive reserve pit subject to 18 AAC 60.440, or drilling waste that is managed as an industrial solid waste under 18 AAC 60.485, the owner or operator of a drilling waste storage facility shall meet the storage requirements of this subsection as follows:

(1) a person who plans to store drilling waste during drilling operations, in a manner that does not require a permit under 18 AAC 60.200, shall submit a storage plan to the department at least 30 days before operations are planned to begin; storage may not begin until the department has approved the plan; a plan submitted under this paragraph must include

(A) the name, address, phone number, and affiliation of each person responsible for conducting the drilling activity;

(B) the location and type of storage container;

(C) plans and material specifications to be used in the construction of any lined containment structure to be used for temporary storage;

(D) methods to be used to prevent the discharge of drilling waste leachate to the land or water of the state;

(E) the name and location of each facility to which stored drilling waste will be transferred; the use of a lined existing drilling waste disposal facility as a transfer location is acceptable under this subparagraph;

(F) the anticipated dates of storage and waste removal, and the location of the ultimate disposal of the drilling waste; and

(G) certification that the waste will be removed from the property within one year after completing the drilling operation;

(2) containment structures must conform to the following standards unless the department provides written approval of an alternate plan that will protect the public health, safety, and welfare and the environment in a similar manner:

(A) a containment structure must be sized to contain all the waste and any anticipated precipitation that may accumulate in the area with a minimum of two feet of freeboard;

(B) containment structures must be leakproof;

(C) liner material must be compatible with petroleum hydrocarbons, drilling waste, and any other material that might be deposited into the temporary structure; and

(D) liner material must meet the standards in (c)(7) of this section; and

(3) after removal of drilling waste from a storage area, the person conducting the activity shall

(A) conduct a visual site inspection to verify that all drilling waste has been removed from the site; and

(B) submit written notification to the department within seven days after the final site inspection and provide information regarding drilling waste volume and the final disposition of the transferred drilling waste.

(b) Except for an inactive reserve pit subject to 18 AAC 60.440, the owner or operator of a drilling waste disposal facility shall meet the operating requirements of this subsection. The owner or operator

(1) shall accept only drilling waste that meets the exclusion criteria of 40 C.F.R. 261.4(b)(5), revised as of July 1, 1998, adopted by reference;

(2) may not accept waste containing hydrocarbons as free liquids if freezeback is proposed;

(3) may not accept waste incompatible with freezeback, if freezeback is proposed;

(4) shall keep to a minimum the introduction of extraneous liquids;

(5) shall operate in accordance with a fluid management plan if a dry option is selected under (c) of this section; and

(6) shall operate with a minimum of two feet of freeboard.

(c) The following design requirements apply to a drilling waste disposal facility:

(1) the design must take into account the location of the seasonal high groundwater table, surface water, and continuous permafrost, as well as proximity to human population and to public water systems, with the goal of avoiding any adverse effect on these resources;

(2) the containment and monitoring design must be determined by use of Tables A and B in this subsection;

DOUBLE CLICK TO VIEW TABLE A

DOUBLE CLICK TO VIEW TABLE B

(3) the facility must be designed to

(A) prevent the escape of drilling waste and leachate during active and post-closure monitoring periods;

(B) be of the minimum volume necessary for drilling waste disposal and emergency relief volume;

(C) prevent overflow from, or damage to, containment structures or other waste management areas, from operations, annual average precipitation, wind action, or wave action;

(D) ensure that drilling waste, leachate, or eroded soil from the drilling waste disposal facility does not cause a violation of the applicable water quality standards in 18 AAC 70 at the surface water point of compliance established under 18 AAC 60.810; and

(E) ensure that drilling waste leachate from the drilling waste disposal facility does not cause a violation of the applicable water quality standards in 18 AAC 70 in the uppermost aquifer at the groundwater point of compliance established under 18 AAC 60.825(c);

(4) a drilling waste disposal facility that is designed to contain drilling waste in a permanently frozen state must be constructed so that the surface level of all drilling waste at close-out is at least two feet below the active thaw zone, unless the applicant demonstrates that the waste will otherwise remain frozen after close-out;

(5) the plans for the proposed design and construction of the drilling waste disposal facility and the fluid management plan must be approved and signed and sealed by a registered engineer;

(6) a containment structure must support and maintain the integrity of the liner throughout the life of the facility, including post-closure;

(7) a single liner must be either

(A) constructed of compacted soil, or another similar natural or synthetic material, with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/s; the department will approve a more permeable liner if the applicant demonstrates that the alternative will provide an equivalent level of protection for public health and the environment, taking into account the factors set out in 18 AAC 60.825(c);

(B) a flexible membrane that meets the requirements of (C) of this paragraph and that is selected, constructed, installed, and maintained in accordance with the requirements of one of the following documents, adopted by reference in this chapter:

(i) United States Environmental Protection Agency, Lining of Waste Impoundment and Disposal Facilities, SW-870, March 1983 (revised edition);

(ii) repealed 10/29/98;

(iii) United States Environmental Protection Agency, Lining of Waste Containment and Other Impoundment Facilities, EPA/600/2-88/052, September 1988; or

(iv) United States Environmental Protection Agency, Solid Waste Disposal Facility Criteria Technical Manual, EPA530-R-93-017, November 1993; or

(C) a flexible membrane that is at least

(i) 30 mils in thickness; or

(ii) 60 mils in thickness if it consists of high density polyethylene (HDPE);

(8) a double liner must consist of two distinct liners, each capable of independently containing waste; a flexible membrane liner must be installed as the primary, or inner, liner and the secondary, or outer, liner must meet the provisions of (7) of this subsection;

(9) a composite liner must consist of a flexible membrane liner in direct and uniform contact with a liner that meets the requirements of (7)(A) of this subsection, or a prefabricated geosynthetic clay composite liner; and

(10) each liner must be

(A) designed and installed to assure that it will remain in place during the active life of the facility and any post-closure care period and will prevent drilling waste or leachate from escaping from the containment structure or other waste management area; and

(B) constructed of materials that are chemically, physically, and biologically compatible with the disposed of drilling waste and its leachate.

(d) In addition to other applicable provisions of this chapter, the following monitoring requirements apply to a drilling waste disposal facility:

(1) the owner or operator shall sample and analyze surface water as required by the permit at the point of compliance described in 18 AAC 60.810; and

(2) in areas of continuous permafrost, the owner or operator shall install, as required by the permit, subsurface thermal monitoring systems designed to detect thawing of the permafrost, and if containment is accomplished by freezeback, to detect thawing of the drilling waste for at least two years after closure; the owner or operator shall demonstrate that the drilling waste has remained frozen through one summer.

(e) Except for an inactive reserve pit subject to 18 AAC 60.440, a permitted drilling waste disposal facility must be closed as follows:

(1) the owner or operator of the facility shall, unless otherwise authorized by the department, close the disposal facility and

(A) remove all pumpable fluids, resulting in a waste that is in a nonliquid condition; this subparagraph does not apply if closure will be achieved by freezeback;

(B) take appropriate measures to ensure that the contents of a containment structure are of sufficient compressive strength to support a cap while maintaining the proposed design contour;

(C) construct a cap that is designed to

(i) prevent thawing of wastes, or that has a hydraulic conductivity less than or equal to the hydraulic conductivity of any bottom liner system present, or natural subsoils present, or a hydraulic conductivity no greater than  $10^{-5}$  cm/s, whichever is less;

(ii) withstand erosion, cracking, adverse effects of freeze-thaw cycles, frost heaves, and other events that might cause degradation or damage to the cap's barrier layer;

(iii) be at least 20 mils in thickness if the cap is constructed of a flexible membrane other than high density polyethylene (HDPE); and

(iv) be at least 60 mils in thickness if the cap is constructed of high density polyethylene (HDPE); and

(D) ensure that the cap is revegetated or otherwise treated in a manner appropriate to the long-term use of the facility;

(2) if the department finds that a drilling waste disposal facility is unstable or poses a risk to public health or safety or the environment, the department will require the owner or operator to

(A) conduct a monitoring program for at least five years after closure;

(B) prepare logs and submit written reports of inspections, with photographs of the disposal site;

(C) maintain the integrity of the final cover, slopes, drainage structures, liners, caps, groundwater monitoring devices, and thermal monitoring devices; and

(D) if a containment structure or other waste management area is located in permafrost, ensure that the drilling wastes do not cause thawing of the permafrost and, if containment is accomplished by freezeback, ensure that the drilling wastes do not thaw after closure.

(3) the department will, in its discretion, require the establishment of permanent markers or survey monuments, if there are no readily observable existing monuments or markers, from which the exact location of a facility and each closed waste management area in the facility can be determined; and

(4) a containment structure must be closed as required by 18 AAC 60.440, or reconstructed to meet the standards of (c) of this section, within one year after detecting a

violation of the water quality standards in 18 AAC 70 at the points of compliance established under 18 AAC 60.810(b) or 18 AAC 60.825(c).

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

Editor's note: The documents adopted by reference in 18 AAC 60.430 may be reviewed at the department's offices in Anchorage, Fairbanks, and Juneau, and at the office of the Lieutenant Governor. The Environmental Protection Agency documents may be ordered from National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161.

18 AAC 60.440. Closure of inactive reserve pits

#### Statute text

(a) An inactive reserve pit must be closed in accordance with (e) - (k) of this section unless the pit was previously closed under approval from the department, in which case the closure is considered approved under this section.

(b) Repealed 6/30/2002.

(c) Repealed 6/30/2002.

(d) The owner or operator of one or more inactive reserve pits shall list those pits, except for inactive reserve pits exempted under (a) of this section, and provide that list to the department, together with a schedule for submitting closure plans for those pits. The list and schedule must be provided to the department by January 28, 1997 or one year after the date of a disapproval under (c) of this section, whichever occurs later. The schedule must anticipate that at least half of the closure plans will be submitted by January 28, 2000 and that the remaining closure plans will be submitted by January 28, 2002.



(e) Before submitting a closure plan for an inactive reserve pit, the owner or operator shall collect and analyze samples as required by Tables C and D of this subsection or submit equivalent sampling data. The owner or operator may submit a sampling plan for department review before doing the field work. The department will review and comment on the plan, or approve it, within 90 days after receiving it. The owner or operator shall determine the type of samples to be taken, the sampling locations, and the analysis required, based on

(1) Tables C and D;

(2) site specific conditions;

(3) historic information about waste disposal practices at the site; and

(4) the statistical significance desired to be achieved with the information to be gathered.

DOUBLE CLICK TO VIEW TABLE C

DOUBLE CLICK TO VIEW TABLE D

(f) A closure plan submitted under (d) of this section must be accompanied by a fee payable to the State of Alaska in the amount of \$1,500 for each drill site. This fee covers only the review of the closure plan and the approval or disapproval of the closure plan. The closure plan must include, at a minimum,

(1) a list of the reserve pits known or believed to exist at the site;

(2) a brief history of the construction and use of those pits, including current status;

(3) site geology, hydrology, and climatology;

(4) the site's economic, biological, ecological, historical, and human resources;

(5) an assessment of the pit's existing condition, based on its use, age, and location;

(6) the results of sampling and chemical analysis conducted or provided under (e) of this section;

(7) a qualitative discussion of substantial effects on surface water, groundwater, soil, or sediment imminently likely to result from leachate or a constituent of the deposited waste, assessed at points of compliance established in accordance with 18 AAC 60.810(b) and 18 AAC 60.825(c);

(8) a qualitative discussion of material, probable risks to public health or the environment posed by the pits, and any feasible corrective action that might eliminate, mitigate, or abate the risks;

(9) an analysis of the feasible corrective actions, including the alternative of taking no corrective action compared to the potential benefit of implementing a corrective action; and

(10) a proposal to implement or refrain from implementing corrective action, based on the information presented under this subsection and upon an assessment of the sampling data collected under (e) of this section, assessed in accordance with (i) of this section; if corrective action is proposed, the closure plan must include a corrective action plan and implementation schedule.

(g) Within 12 months after receiving a closure plan, the department will notify the owner or operator that it approves or disapproves the plan or that more information is required.

(h) The department will approve an inactive reserve pit closure plan if

(1) the pit is not found, based on the documentation of a reasonable search; documentation must include the names of persons who conducted the search and their field notes, and a recent aerial photograph of the area searched on a scale of 1" = 200' or larger; a minimum reasonable search consists of a four man-hour search on foot, based on a 7.5-minute series quadrangle topographic map, or a minimum one-half hour helicopter survey, or an aerial magnetometer survey;

(2) an assessment of the data submitted with the plan shows that, at the compliance points established under 18 AAC 60.810(b) and 18 AAC 60.825(c), concentrations of hazardous constituents do not

(A) represent a statistically significant difference from background; or

(B) exceed applicable water quality criteria in 18 AAC 70;

(3) the pit contains exposed drilling waste but does not hold water;

(4) evidence of ponded water is present and a water quality standard of 18 AAC 70 has been violated, but the owner or operator has demonstrated that the violation presents no material risk to public health or the environment or that the violation is not caused, in whole or in part, by the drilling waste; or

(5) a water quality standard of 18 AAC 70 has been violated, feasible corrective action is proposed by the owner or operator, and the corrective action plan and implementation schedule of (f)(10) of this section are approved by the department.

(i) At a site where a violation of a water quality standard is found but the owner or operator cannot meet the demonstration requirements of (h)(4) of this section, the department will, in its discretion, require corrective action, including a monitoring program for a specified time, based on site-specific conditions, to determine whether water quality in the affected water body is likely to improve or deteriorate over time. The department will, in its discretion, conditionally approve a reserve pit closure plan without requiring corrective action if the owner or operator demonstrates that the effects of feasible corrective action would exceed the benefits of the action.

(j) After closure, the department will, in its discretion, issue permanent closure approval for an inactive reserve pit if

(1) the pit is not found, based on the minimum criteria of a reasonable search under (h)(1) of this section;

(2) no material or probable risk to public health or the environment is present as determined under (h)(2) - (4) of this section, and no further action is required;

(3) the corrective action plan of (h)(5) of this section is implemented and the action is demonstrated to the department's satisfaction to eliminate, mitigate, or abate the risk present at the site;

(4) the owner or operator demonstrates that the effects of feasible corrective action would exceed the benefits of the action; or

(5) the owner or operator demonstrates that water pollution in the affected water body is diminishing.

(k) If an inactive reserve pit is located on private property and the owner or operator seeking permanent closure approval is not the landowner of record, the owner or operator shall provide proof that the landowner has been notified of the request for permanent closure approval.

(l) If additional information about conditions at a closed inactive reserve pit makes corrective action necessary to protect public health and the environment, or, if appropriate, supportive documentation becomes available that might help locate an inactive reserve pit closed under (h)(1) of this section, the department will require further investigation, assessment, monitoring, or remediation.

(m) The department will apply a fee described in 18 AAC 60.700(f) for any action taken by the department after initial approval or disapproval of the closure plan, including oversight of corrective action, ongoing monitoring, final inspection of closed sites, and issuance of permanent closure approval.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 6/30/2002, Register 162

#### Annotations

Authority: AS 44.46.020

AS 44.45.025

AS 46.03.020

AS 46.03.090

AS 46.03.100

AS 46.03.800

AS 46.03.810

Editor's note: Information about how to obtain or review SW-846 adopted by reference in 18 AAC 60.440 is in the editor's note for 18 AAC 60.365.

#### 18 AAC 60.450. Asbestos

##### Statute text

(a) Waste that includes regulated asbestos-containing material (RACM) waste must be managed in a manner that prevents the release of asbestos fibers to the air or to surface water and must be disposed of in an approved RACM landfill. Non-RACM waste may be disposed of in a municipal solid waste landfill if

(1) the landfill has a permit issued under this chapter;

(2) the waste is covered within 24 hours, using procedures that prevent the release of asbestos fibers to the air or to surface water; and

(3) no fires have occurred in the landfill for more than one year.

(b) A waste management area used for disposal of RACM must be located on undisturbed earth or stable fill. An asbestos waste management area may not be located in a manner that would preclude future closeout or remedial action at the facility. The limits of the asbestos disposal area must be marked on property survey records, and recorded on the property deed.

(c) The operator of a facility that is receiving RACM waste shall inspect each load of RACM waste to assure that the friable asbestos material is sealed in leak-proof bags or containers, labeled in accordance with 29 C.F.R. 1910.1001(j)(4), revised as of July 1, 1998, adopted by reference, and accompanied by a complete and accurate shipment record prepared in accordance with (e) of this section or a copy signed by the owner or operator of the facility; of the asbestos waste shipment record prepared by the transporter in accordance with 40 C.F.R. 61.149.

(d) At the end of each operating day, or at least once every 24 hours while disposal of RACM waste is occurring, the operator shall cover RACM waste that has been deposited at the landfill during the operating day or previous 24 hours with at least six inches of non-RACM material.

(e) For all RACM waste received, the owner or operator of the active landfill shall maintain, in the operating record, waste shipment records that include the

(1) name, address, and telephone number of the waste generator;

(2) name, address, and telephone number of the transporter;

(3) amount of asbestos-containing waste material, measured in cubic yards; and

(4) date of receipt.

(f) The owner or operator of a landfill in which RACM waste has been disposed of shall maintain in the operating record, until the landfill closure is complete, a map or diagram showing the boundaries of the asbestos waste management area, its depth, and the amount, in cubic yards, of the RACM waste located there.

(g) Except as provided in (f) of this section, the owner or operator shall retain a copy of all records required under this section for at least two years, and shall furnish them to the department upon request.

(h) The owner or operator shall submit a workplan for approval at least 45 days before excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at the landfill and covered. Department approval of the workplan is required before excavation may begin. If the excavation will begin on a date other than the one contained in the approved workplan, notice of the new date must be provided to the department at least 10 working days before excavation begins. Excavation may not begin earlier than the date specified in the approved workplan. A workplan submitted under this subsection must include the

(1) scheduled starting and completion dates;

(2) reason for disturbing the waste;

(3) procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material;

(4) location of any temporary storage site; and

(5) final disposal site.

(i) At closure of a waste management area containing RACM waste, a final cover of at least two feet of non-asbestos-containing soil must be placed on the area and revegetated. A permanent survey marker must be constructed at the site. Drawings showing the boundaries of the RACM waste management area must be filed with the department and attached to the property deed, with a written warning about health and safety hazards related to disturbing the site.

#### History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

AS 46.14.110

18 AAC 60.455. Mining waste

#### Statute text

Except when the only chemical being used is a flocculent to enhance settling, tailings from hard rock mines, and tailings from placer mines that have been amalgamated or chemically treated, are subject to 18 AAC 60.010 - 18 AAC 60.265, 18 AAC 60.400 - 18 AAC 60.495, 18 AAC 60.700 - 18 AAC 60.730, and 18 AAC 800 - 18 AAC 60.860 as necessary to prevent a violation of the air quality standards in 18 AAC 50 or the water quality standards in 18 AAC 70. The department will, in its discretion, incorporate applicable provisions of this chapter into a wastewater permit issued under 18 AAC 72 or a solid waste disposal permit issued under this chapter.

#### History

History: Eff. 1/28/96, Register 137; am 6/28/96, Register 138

#### Annotations

Authority: AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

18 AAC 60.460. Inert waste

Statute text

(a) The requirements of this section do not apply to a waste management area where inert waste is disposed of within the boundaries of a MSWLF.

(b) Liners are not required at an inert waste monofill.

(c) If a groundwater monitoring system is required at an inert waste monofill under 18 AAC 60.820, detection monitoring under 18 AAC 60.840 and 18 AAC 60.850 during the active life of the monofill will be required only if the department

(1) determines that non-inert waste is or has been present at the site;

(2) detects evidence of a spill or groundwater contamination; or

(3) finds unexplained contamination in nearby wells.

(d) The owner or operator of an inert waste monofill who accepts combustible inert waste shall maintain fire control equipment and make it available to extinguish any fires that start.

(e) The owner or operator of an inert waste monofill shall construct a final cover of soil material at least 24 inches thick, graded to promote drainage without erosion, and shall revegetate it. The department will approve an alternate final cover design if the applicant demonstrates that the alternate design will protect public health, safety, and welfare, and the environment. After completion of the final cover on a monofill with a groundwater monitoring system, the owner or operator shall conduct detection monitoring at the frequency required by 18 AAC 60.850(b).

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020



AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.470. Sewage solids

Statute text

(a) The requirements of this section apply to the owner or operator of a sewage solids monofill. If a sewage solids monofill is located within the boundaries of a MSWLF, it is considered co-disposal with municipal solid waste, and the requirements of this section do not apply. If sewage solids are co-disposed of in a MSWLF, the owner or operator shall meet the requirements of 18 AAC 60.365.

(b) Waste placed in a sewage solids monofill must be dewatered and contain at least 10 percent solids by weight. Sewage or septage less than five percent solids by weight will be regulated as wastewater under 18 AAC 72. Sewage or septage that is five percent or more, but less than 10 percent, solids by weight may be handled as wastewater or dewatered to contain at least 10 percent solids by weight.

(c) If a sewage solids monofill does not have a liner and leachate collection system and the boundary of the monofill is

(1) 500 or more feet from the property line of the facility, sewage solids may not be disposed of in the monofill if they contain arsenic, chromium, or nickel in concentrations greater than

(A) the limits established in Table E of this subsection; or

(B) site-specific limits established under (d) of this section; or

(2) less than 500 feet from the property line of the facility, sewage solids may not be disposed of in the monofill if they contain arsenic, chromium, or nickel in concentrations greater than

(A) the limits established in Table F of this subsection; or

(B) site-specific limits established under (d) of this section.

TABLE E  
 MAXIMUM ALLOWABLE POLLUTANT CONCENTRATIONS  
 IN SEWAGE SOLIDS PLACED IN A MONOFILL WITHOUT A  
 LINER AND LEACHATE COLLECTION SYSTEM AND WITH  
 A BOUNDARY 500 OR MORE FEET FROM THE FACILITY  
 PROPERTY LINE

Pollutant	Concentration (milligrams per kilogram*)
Arsenic	73
Chromium	600
Nickel	420

\*Dry weight basis

TABLE F MAXIMUM ALLOWABLE POLLUTANT CONCENTRATIONS  
 IN SEWAGE SOLIDS PLACED IN A MONOFILL WITHOUT A  
 LINER AND LEACHATE COLLECTIONS SYSTEM  
 WITH A BOUNDARY LESS THAN 500 FEET FROM  
 THE FACILITY PROPERTY LINE

Unit boundary to property line distance (feet)	POLLUTANT CONCENTRATION*		
	Arsenic (mg/kg)	Chromium (mg/kg)	Nickel (mg/kg)
0 to less than 82	30	200	210
82 to less than 164	34	220	240
164 to less than 246	39	260	270
246 to less than 328	46	300	320
328 to less than 410	53	360	390
410 to less than 492	62	450	420

\* Dry weight basis

(d) The owner or operator of a sewage solids monofill without a liner and leachate collection system may secure from the department site-specific pollutant limits by demonstrating, in a permit application, that site-specific limits are appropriate for that monofill because the limits of Table E or F, whichever is applicable, are not necessary to protect public health or the environment.

(e) If a sewage solids monofill does have a liner or leachate collection system, the

(1) system must be operated and maintained while the monofill is active and for five years after closure; and

(2) leachate must be collected and disposed of in accordance with the applicable requirements of 18 AAC 72 for the same period.

(f) Except as provided in a permit issued under 33 U.S.C. 1342 (Clean Water Act, section 402) and certified by the department, an active sewage solids monofill may not be located

(1) within 200 feet of a fault that has had displacement in Holocene time;

(2) in an unstable area; or

(3) in a wetland.

(g) The owner or operator shall maintain a minimum horizontal distance of 50 feet between the active sewage solids monofill and the facility's property line.

(h) Sewage solids may not be placed in a sewage solids monofill if likely to adversely affect a threatened or endangered species listed under 16 U.S.C. 1533 (Endangered Species Act, section 4) or its designated critical habitat. "Adversely affect" has the meaning developed under 16 U.S.C. 1536 (Endangered Species Act, section 7) and regulations adopted under that section.

(i) When sewage solids are placed in a monofill, the vector attraction reduction requirement in 40 C.F.R. 503.33(b)(11) must be met or one of the

(1) Class A or Class B pathogen reduction requirements of 40 C.F.R. 503.32 must be met; and

(2) vector attraction reduction requirements in 40 C.F.R. 503.33 (b)(1) - (b)(10) must be met.

(j) In addition to other applicable monitoring provisions of this chapter, the following monitoring requirements apply to a sewage solids monofill:

(1) the monitoring frequency set out in Table G of this subsection must be met for

(A) arsenic, chromium, and nickel concentrations in the solids being deposited in the monofill;

(B) the pathogen density requirements set out in 40 C.F.R. 503.32; and

(C) the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(1) - (b)(8);

TABLE G  
FREQUENCY OF MONITORING - SEWAGE SOLIDS  
MONOFILL

Amount of sewage solids 1 (tons per 365-day period)	Frequency
Greater than zero but less than 330	Once yearly
Equal to or greater than 330 but less than 1,650	Once each quarter (4 times yearly)
Equal to or greater than 1,650 but less than 16,500	Once every 60 days (6 times yearly)

Equal to or greater than 16,500      Once monthly (12 times yearly)  
1 Amount of sewage solids placed in a sewage solids monofill (dry weight basis).

(2) after the sewage solids monofill has been monitored for two years at the frequency in Table G, the monitoring frequency for pollutants and pathogens may be reduced, but in no case may it be less than once in each year that sewage solids are placed in the monofill; and

(3) the owner or operator of a sewage solids monofill containing more than 2,500 cubic yards of solid waste must establish a continuous explosive gas monitoring station in any building closer than 500 feet from the solid waste disposal area.

(k) The owner or operator of a sewage solids monofill shall develop the following information and retain it for at least five years:

(1) the concentration of arsenic, chromium, and nickel determined under (j) of this section; and

(2) a record of how the requirements of this section are being met.

(l) A food crop, feed crop, or fiber crop may not be grown on an active sewage solids monofill unless the owner or operator demonstrates that, through management practices, public health and the environment are protected from any reasonably anticipated adverse effect of a biological organism in, or a hazardous constituent of, the sewage solids.

(m) Animals may not be grazed on an active sewage solids monofill unless the owner or operator demonstrates that, through management practices, public health and the environment are protected from any reasonably anticipated adverse effect of a biological organism in, or a hazardous constituent of, the sewage solids.

(n) In addition to the requirements of 18 AAC 60.245, the owner or operator of a sewage solids monofill shall submit a written closure and post-closure plan to the department at least 180 days before a monofill will be closed, and shall include, at a minimum,

(1) a description of the final cover and how it will be designed to meet the requirements of (o) of this section, prevent the release of pathogens or hazardous constituents, account for settling or subsidence of the monofill, and resist erosion to prevent damage to the final cover;

(2) a discussion of how the leachate collection system will be operated and maintained for at least three years after the monofill closes, if the monofill has a liner and a leachate collection system;

(3) a description of the system used to monitor for methane gas as required by (j)(3) of this section; and

(4) a discussion of how public access to the monofill will be restricted for at least three years after the facility is closed.

(o) The final cover must

(1) consist of soil or another material approved by the department;

(2) be at least 24 inches thick or another thickness approved by the department;

(3) be graded to promote drainage without erosion or ponding; and

(4) be revegetated.

(p) After completion of the final cover, the owner or operator of a sewage solids monofill with a groundwater monitoring system shall conduct detection monitoring at the frequency required by 18 AAC 60.850(b).

#### History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020  
AS 46.03.070  
AS 46.03.100  
AS 46.03.110  
AS 46.03.800  
AS 46.03.810  
AS 46.14.110

18 AAC 60.480. Wood waste

Statute text

(a) A wood waste monofill must be designed, constructed, and operated in a manner that will minimize water pollution and prevent combustion.

(b) A wood scrap larger than five cubic feet may not be placed in a wood waste monofill. A wood scrap larger than one cubic foot may not be placed in a wood waste monofill unless the volume of wood scraps is less than five percent of the volume of the fill. Butt ends and stumps may not be placed in a wood waste monofill.

(c) The department will require a liner at a new wood waste monofill if there is credible evidence indicating that an unlined monofill at that location will cause a violation of the water quality standards of 18 AAC 70.

(d) If there is credible evidence indicating that combustion is taking place within a wood waste monofill, the owner or operator of the site shall conduct thermal monitoring. If combustion is discovered, the owner or operator shall attempt to extinguish the combustion within 30 days. If the combustion cannot be extinguished within 90 days, the wood waste monofill must be excavated, the combustion must be extinguished, and the monofill must be managed in a manner that prevents combustion.

(e) The final cover must be constructed of soil material at least 24 inches thick, graded to promote drainage without erosion, and revegetated. The department will approve an alternate final cover design if the applicant demonstrates that the alternate design will protect public health and the environment. After completion of the final cover on a monofill with a groundwater monitoring system, the owner or operator shall conduct detection monitoring at the frequency required by 18 AAC 60.850(b).

History

History: Eff. 1/28/96, Register 137

Annotations

Authority: AS 44.46.020

AS 46.03.010  
AS 46.03.020  
AS 46.03.100  
AS 46.03.110  
AS 46.03.810  
AS 46.06.080

18 AAC 60.485. Industrial solid waste

Statute text

(a) The requirements of this section apply to the owner or operator of a monofill that accepts industrial solid waste.

(b) A new industrial solid waste landfill and a lateral expansion of an existing industrial solid waste landfill must be designed and constructed with a liner and leachate collection system that meet the standards in 18 AAC 60.330(b).

(c) Waste placed in an industrial solid waste landfill must be spread and compacted in a manner that minimizes future settlement and instability. The surface of the industrial solid waste landfill may not be sloped more steeply than a 3:1 grade.

(d) The owner or operator of an industrial waste monofill shall install a final cover system designed and constructed to minimize

(1) infiltration through the closed landfill by use of an infiltration layer that contains at least 18 inches of earthen material with a permeability no greater than  $1 \times 10^{-5}$  centimeters per second; and

(2) erosion of the final cover by use of an erosion layer that contains at least six inches of earthen material capable of sustaining native plant growth.

(e) The department will approve an alternative to the final cover design required under

(d) of this section if the applicant demonstrates that the proposed design

(1) will protect public health, safety, and welfare, and the environment; and

(2) includes



(A) an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in (d)(1) of this section; and

(B) an erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in (d)(2) of this section.

#### History

History: Eff. 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.490. Closure demonstration and post-closure care

#### Statute text

(a) After closure of a monofill, the owner or operator shall record a notation on the deed to the property of the facility, or some other instrument that is routinely examined during a title search. The owner or operator shall provide written notification to the department and the landowner that the notation has been recorded and that a copy has been placed in the operating record of the facility. The notation on the deed or other instrument must explain, in perpetuity, to any potential purchaser or leaseholder of the property

(1) that the land has been used as a monofill;

(2) the type of waste that was placed in the monofill;

(3) the geographical boundaries of the waste management areas; and

(4) details of any final cover, cap, or other structures or devices installed as part of closure.

(b) The property owner may remove the notation required in (a) of this section from the deed or other instrument only if all wastes are removed from the property and the concentrations of any hazardous constituents then remaining do not exceed contemporary State of Alaska cleanup standards for contaminated sites.

(c) Except for a drilling waste disposal facility subject to 18 AAC 60.430(e)(2), the owner or operator of a monofill shall conduct visual monitoring, for settlement and erosion, for at least 60 consecutive months immediately following the closure. The department will require periodic visual monitoring at a monofill for up to 360 consecutive months immediately following the closure, if based on the type of waste and the site's compliance history under this chapter, the department determines that monitoring is necessary to protect the public health, safety, or welfare, or the environment. In addition to visual monitoring, the department will require groundwater, surface water, leachate, gas, and thermal monitoring at a monofill if the department finds that monitoring is necessary to protect the public health, safety, or welfare, or the environment. The department will also require additional monitoring and corrective action necessary to meet the standards in 18 AAC 60.815 and 18 AAC 60.860. The department will extend the post-closure monitoring period if necessary to ensure that the facility will not harm the public health, safety, or welfare, or the environment. At the end of the post-closure period, the owner or operator shall submit a report to the department that describes site conditions and summarizes the information collected during post-closure period.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

18 AAC 60.495. Permafrost conditions

#### Statute text

Repealed.

#### History

History: Eff. 1/28/96, Register 137; repealed 9/7/2002, Register 163

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Article 5  
Land Application of Biosolids

Section

- 500. Applicability.
- 505. General requirements.
- 510. Permit application.
- 18 AAC 60.500. Applicability

Statute text

(a) Except as provided in (c) of this section, the requirements of 18 AAC 60.500 - 18 AAC 60.510 apply to any person who

(1) prepares biosolids for application to land;

(2) applies biosolids to land; and

(3) owns or operates land on which biosolids are applied.

(b) Land application of biosolids includes

(1) spraying or spreading of biosolids onto the land surface;

(2) injection of biosolids below the land surface; and

(3) incorporation of biosolids into the soil so that the biosolids can either condition the soil or fertilize crops or vegetation grown in the soil.

(c) The requirements of 18 AAC 60.500 - 18 AAC 60.510 do not apply to

(1) sewage solids disposed of in a sewage solids monofill under 18 AAC 60.470;

(2) sewage solids or biosolids disposed of in a facility permitted under 18 AAC 60.200 - 18 AAC 60.265;

(3) a process used to treat domestic sewage or biosolids before final use or disposal, except as provided in 40 C.F.R. 503.15, adopted by reference in 18 AAC 60.505;

(4) the selection of a biosolids use practice;

(5) the use of

(A) sewage solids generated at an industrial facility during the treatment of non-domestic wastewater, including sewage solids generated during the treatment of non-domestic wastewater combined with domestic sewage;

(B) sewage solids determined to be regulated hazardous waste;

(C) sewage solids with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 10 milligrams per kilogram of total solids (dry weight basis);

(D) ash generated during the firing of sewage solids in a solid waste processing facility;

(E) grit, including sand, gravel, cinders, or other materials with a high specific gravity, or screenings, including relatively large materials such as rags, generated during preliminary treatment of domestic sewage in a treatment works; and

(F) sludge generated during the treatment of surface water or groundwater used for drinking water.

#### History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.505. General requirements

Statute text

(a) Regulations of the federal government for land application of biosolids in 40 C.F.R. 503.8 (Sampling and analysis), 503.9 (General definitions), and Part 503, Subpart B (Land Application), Subpart D (Pathogens and Vector Attraction Reduction), and Appendices A and B, revised as of July 1, 1997, are adopted by reference.

(b) A person may not apply biosolids to land unless

(1) the concentration of metals in the soil is below, and will remain below, the limits set in 40 C.F.R. 503.13, Table 1, revised as of July 1, 1997;

(2) the project is consistent with the management practices in 40 C.F.R. 503.14, revised as of July 1, 1997;

(3) the concentration of metals in the biosolids is less than the limits set in 40 C.F.R. 503.13, Table 1, revised as of July 1, 1997;

(4) the biosolids have been treated to meet the pathogen reduction requirements of 40 C.F.R. 503.15(a), revised as of July 1, 1997; and

(5) the biosolids have been treated to meet the vector attraction requirements of 40 C.F.R. 503.15(c), revised as of July 1, 1997.

(c) Except as provided in 18 AAC 60.510(b), a person may not place biosolids on the land of the state without first obtaining a permit from the department.

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.810

18 AAC 60.510. Permit application

Statute text

(a) Except as provided in (b) of this section, a person who prepares biosolids that are to be applied to land, or a person who applies biosolids to land, shall submit a completed permit application to the department as described in (c) of this section. If the proposed operation will occur in the coastal zone of Alaska, the applicant shall also complete and submit a coastal project questionnaire as required by 6 AAC 50.070.

(b) A permit under this section is not required for biosolids bought, sold, or given away in a bag or other container if

(1) the material meets the Class A pathogen reduction requirements of 40 C.F.R. 503.32(a), adopted by reference in 18 AAC 60.505;

(2) the material meets one of the vector attraction reduction requirements in 40 C.F.R. 503.33(b)(1) - (b)(8), adopted by reference in 18 AAC 60.505;

(3) the concentration of each pollutant in the biosolids is less than the limit set in Table H of this subsection; and

(4) the material is free of excessive dust or strong odor.

TABLE H  
MAXIMUM ALLOWABLE CONCENTRATIONS  
OF POLLUTANTS IN EXEMPT BIOSOLIDS

Pollutant	Maximum Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	75
Nickel	420

Selenium                    100  
Zinc                            2800  
\*Dry weight basis

(c) A permit application submitted under this section must consist of a

(1) cover letter that

(A) identifies the person seeking to apply bulk biosolids to land;

(B) contains a statement that the applicant is aware of all applicable local ordinances, local zoning requirements, and, if appropriate, the Alaska Coastal Management Program requirements of 6 AAC 50; and

(C) briefly describes the

(i) application site;

(ii) pathogen reduction method to be used; and

(iii) vector attraction reduction method to be used;

(2) form supplied or approved by the department that will be specific for the type and quality of the biosolids to be applied to the application site;

(3) map or aerial photograph of a scale of at least one inch equals one mile that

(A) identifies major topographical, geological, hydrological, biological, and archaeological features, and buildings, roads, and public drinking water supplies within two miles of the application site;

(B) clearly shows the location of the application site and property boundaries, if the property boundaries are within two miles of the application site; if the property has no boundaries within two miles of the application site, then the boundary will be considered to be 50 feet from any land application activity described in (4) of this subsection; and

(C) identifies residential drinking water supply wells in use within one-half mile of the boundary of the property on which the application site is located;

(4) site development plan for land application activities that includes

(A) the location and direction of flow of surface water and any water flow containment or diversion structures, and the depth to the seasonal high groundwater level;

(B) a map showing the locations of major soils types based on soil surveys and their descriptions, depths, permeability, Cation Exchange Capacity, and pH;

(C) results of biosolids analyses for total Kjeldahl nitrogen (TKN), Nitrate nitrogen (NO<sub>3</sub>-N), Ammonia nitrogen (NH<sub>4</sub>-N), phosphorus (P), and potassium (K);

(D) the annual biosolids application rate based on the nitrogen requirements of the crops or vegetation to be grown;

(E) the calculated cumulative and annual application amount of each pollutant from Table H present in the biosolids to be applied at each site;

(F) an appropriate narrative description of the proposed activity, including

(i) operating procedures; and

(ii) methods to control water pollution, disease vectors, access (if appropriate), odors, and other nuisances; and

(5) copy of a deed or other legal document that identifies the landowner and, if the operator is not the landowner,



(A) copy of a lease agreement that clearly authorizes the proposed activity; or

(B) written statement by the landowner, demonstrating that the landowner consents to the proposed activity.

(d) If there is credible evidence that the project could cause a violation of the water quality standards of 18 AAC 70, the department will require the applicant to submit data to characterize the background quality of surface water within 100 feet of a proposed application site in accordance with 18 AAC 60.810.

(e) A permit application submitted, and a permit issued, under this section will be processed under 18 AAC 15, 18 AAC 60.215, 18 AAC 60.250, 18 AAC 60.255, and 18 AAC 60.260 as a solid waste permit.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

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#### Article 6

#### User Fees

#### Section

700. Fee requirements.

720. (Repealed).

730. Fee appeal procedures.

18 AAC 60.700. Fee requirements

#### Statute text

(a) Except as provided in (g) and (i) of this section, the owner or operator of a solid waste disposal facility shall pay the applicable service fees and annual fees as prescribed in Tables I-1, 1-2, 1-3, 1-4, and I-5 of this subsection. The owner or operator of a facility

subject to the annual fee requirement shall continue to pay the annual fee until the department approves termination of the postclosure care obligations under 18 AAC 60.270.

DOUBLE CLICK TO VIEW TABLE I-1

Notes:

1 For purposes of this table and Table I-2 of this subsection, a Class III (camp) landfill is a MSWLF that is classified under 18 AAC 60.300(c)(3)(A), and a Class III (community) landfill is an MSWLF that is classified under 18 AAC 60.300(c)(3)(B).

2 In lieu of the permitting portion of the annual fee, Class III (community) landfills shall pay the one-time fee listed in Table I-2 of this subsection for review and approval of the permit or plans at the time the facility is constructed or undergoes capital improvement.

3 This fee applies to a facility that has an active permit on June 30, 2002; beginning with the next calendar year after the permit expires, the department will apply the total annual fee for an individual permit unless the facility completes final closure under 18 AAC 60.390 - 18 AAC 60.395.

4 This fee is payable each year from the time final closure is completed under 18 AAC 60.390 - 18 AAC 60.395 until the department approves termination of the post-closure obligations under 18 AAC 60.270.

DOUBLE CLICK TO VIEW TABLE I-2

Notes:

1 The permit application review fee must be submitted at the time of application; during the initial review process, the department will determine the one-time fees that apply to the project, and will invoice the applicant.

2 For purposes of this table and Table I-1 of this subsection, a Class III (camp) landfill is a MSWLF that is classified under 18 AAC 60.300(c)(3)(A), and a Class III (community) landfill is a MSWLF that is classified under 18 AAC 60.300(c)(3)(B).

3 If the application is determined to be complete, this fee will be credited toward the annual fee in Table I-1 in this subsection; if the application is not complete, the application will be returned to the applicant and a new application fee must be included when the permit application is re-submitted.

4 This fee will be paid by the owner or operator of a Class III (community) landfill at the time construction or capital improvement plans are submitted to the department for review and approval; this fee is paid in lieu of an annual permit fee in Table I-1 of this subsection.

DOUBLE CLICK TO VIEW TABLE I-3

Notes:

1 For purposes of this table and Table I-4 of this subsection, a

(A) Type X nonmunicipal facility includes a drilling waste disposal facility, a grind-and-inject facility, and an industrial solid waste disposal facility;

(B) Type Y nonmunicipal facility includes a solid waste processing facility, a wood waste facility, and a food waste disposal facility; and

(C) Type Z nonmunicipal facility includes an asbestos, a biosolids, or an inert waste facility.

2 This fee applies to a facility that has an active permit on June 30, 2002; beginning with the next calendar year after the permit expires, the department will apply the total annual fee for an individual permit unless the facility completes final closure under 18 AAC 60.430 - 18 AAC 60.490.

3 This fee is payable each year from the time final closure is completed under 18 AAC 60.430 - 18 AAC 60.490 until the department approves termination of the post-closure obligations under 18 AAC 60.270.

DOUBLE CLICK TO VIEW TABLE I-4

Notes:

1 For purposes of this table and Table I-3 of this subsection, a

(A) Type X nonmunicipal facility includes a drilling waste disposal facility, a grind-and-inject facility, and an industrial solid waste disposal facility;

(B) Type Y nonmunicipal facility includes a solid waste processing facility, a wood waste facility, and a food waste disposal facility; and

(C) Type Z nonmunicipal facility includes an asbestos, a biosolids, or an inert waste facility.

2 The permit application review fee must be submitted at the time of application; during the initial review process, the department will determine the one-time fees that apply to the project, and will invoice the applicant.

3 If the application is determined to be complete, this fee will be credited toward the annual fee in Table I-3 of this subsection; if the application is not complete, the application will be returned to the applicant and a new application fee must be included when the permit application is re-submitted.

DOUBLE CLICK TO VIEW TABLE I-5

Notes:

1 General permit types are defined in 18 AAC 60.255(i); the applicable general permit type is specified in the public notice for each general permit.

2 The first annual fee must be submitted with an application for coverage under a general permit as specified in 18 AAC 60.255(e); subsequent annual fees will be billed each year; a subsequent annual fee must be paid within 60 days after the date of billing for coverage under the general permit to remain in effect.

(b) Before the department will review a plan required under this chapter, an application for a permit, or any other document listed in Table I-2 or I-4 in (a) of this section, the applicant must pay each applicable fee.

(c) Annual fees in Tables I-1, I-3, and I-5 in (a) of this section will be billed at the beginning of each calendar year and must be paid within 60 days after the date of billing.

(d) A fee required under (a) of this section is not refundable.

(e) Upon request, the department will reduce the annual fee by \$60 for a business operating a solid waste disposal facility that demonstrates to the department that the business has 20 or fewer employees.

(f) Except as provided in (i) of this section, for a solid waste facility or activity that is not listed in Table I-1, I-2, I-3, I-4, or I-5 in (a) of this section, the department will

(1) assess a fee based on direct department costs, including

(A) \$38 for each hour of staff time spent on the activity; and

(B) goods and third-party services; for purposes of this subparagraph, goods and third-party services include travel, if the business has more than 20 employees; or

(2) if the applicant requests, negotiate a fee to cover the costs of issuing the permit or approval sought.

(g) If the department determines that the department lacks the technical expertise to evaluate a portion of a facility plan, application, or waiver request, and that evaluation is necessary in order to protect the public health or the environment, the department will notify the applicant and, under AS 36.30, enter into a contract with a consultant for the needed expertise to complete the evaluation. The applicant shall pay for the cost of the contract in addition to any other fees in this section.

(h) The permittee shall pay the fee assessed under (f) of this section within 60 days after the date of billing.

(i) The department will not assess a fee for permit and plan review activities related to

(1) a composting facility; or

(2) landspreading of biosolids.

(j) Interest on an overdue payment accrues at the rate prescribed in AS 45.45.010 and begins to accrue when the payment is more than

(1) 60 days past due; or

(2) 90 days past due for a payment for which a review was requested under 18 AAC 60.730, if payment is found to be due.

#### History

History: Eff. 6/28/96, Register 138; am 10/29/98, Register 148; am 6/30/2002, Register 162; am 7/11/2002, Register 163; am 9/7/2002, Register 163

#### Annotations

Authority: AS 37.10.052

AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

Editor's note: Facility classification and required fees may be discussed at the preapplication meeting under 18 AAC 60.210(a).

## 18 AAC 60.720. Billing and payment procedures

### Statute text

Repealed.

### History

History: Eff. 6/28/96, Register 138; repealed 6/30/2002, Register 162

## 18 AAC 60.730. Fee appeal procedures

### Statute text

A person who disputes the assessment of a fee under 18 AAC 60.700(f)(1) or who disputes a computation of charges may request a review under 18 AAC 15.190.

### History

History: Eff. 6/28/96, Register 138; am 6/30/2002, Register 162; am 7/11/2002, Register 163

### Annotations

Authority: AS 44.46.020

AS 44.46.025

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

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## Article 7

### Monitoring and Corrective Action Requirements

#### Section

800. Visual and air monitoring.

810. Surface water monitoring.

815. Corrective action for problems discovered during visual and surface water monitoring or during an inspection.

820. Groundwater monitoring and corrective action.

825. Groundwater monitoring systems.

830. Groundwater sampling and analysis.

840. Parameters for surface water monitoring and groundwater detection monitoring.

850. Detection monitoring program.

860. Assessment monitoring and corrective action.

18 AAC 60.800. Visual and air monitoring

### Statute text

(a) For a facility required to have a permit under 18 AAC 60.200, the permittee shall design a visual monitoring program to detect and document

(1) signs of damage or potential damage to any component of the facility from settlement, ponding, leakage, thermal instability, frost action, erosion, thawing of the waste, or operations at the facility;

(2) damage to the above-grade portions of groundwater monitoring devices or thermistors;

(3) violations of permit conditions or requirements of this chapter, specifically including the requirements in 18 AAC 60.225(a) that are readily observable;

(4) escape of waste or leachate or any unauthorized waste disposal;

(5) slippage of a flexible liner or damage to its anchor;

(6) erosion, a tear, a crack, or other damage to the visible portion of a liner;

(7) damage to the structural integrity of a containment structure, retaining wall, erosion control, or diversion structure;

(8) fire or combustion in the waste; and

(9) evidence of death or stress to fish, wildlife, or vegetation that might be caused by the facility.

(b) The department will require air pollution monitoring if there is credible evidence that the facility is causing or contributing to a violation of 18 AAC 50.

(c) The permittee shall ensure that a person who is familiar with permit requirements, with the applicable requirements of this chapter, and with the visual monitoring plan, conducts a visual inspection of the facility once each month, or at a frequency appropriate to facility operations as determined by the department and specified in the permit.



(d) The owner or operator shall keep records of visual monitoring conducted under this section with the operating record of the facility for at least five years after the visual monitoring was conducted.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.080

#### 18 AAC 60.810. Surface water monitoring

##### Statute text

(a) The department will require a surface water monitoring system at a facility if the department finds that surface water pollution is likely to endanger public health or cause a violation of the water quality standards in 18 AAC 70.

(b) If surface water monitoring is required under (a) of this section, surface water must be sampled at points of compliance selected by the permittee and approved by the department. The points of compliance must be chosen so that highest concentrations of hazardous constituents migrating off the facility will be detected and so that interference from sources of pollution unrelated to the facility's solid waste management operations will be minimized. The point of compliance will normally be located no more than 50 feet outside a waste management area boundary and on land owned by the owner of the facility. When establishing a point of compliance under this subsection, the owner or operator may, and the department will, consider the criteria of 18 AAC 60.825(c) that are applicable to surface water.

(c) If surface water monitoring is required under (a) of this section, points of compliance must be sampled during high flow and low flow conditions each year unless another schedule is approved or required by the department to meet the standards in (a) of this section.

(d) If surface water monitoring is required under (a) of this section, monitoring parameters will be selected by the department from those that are set out in 18 AAC

60.840. The department will approve alternative parameters that are indicative of the type of hazardous constituents associated with the type of waste handled at the facility.

(e) If surface water monitoring is required under (a) of this section, the owner or operator shall develop surface water monitoring procedures, including consistent sampling and analysis procedures designed to ensure that monitoring results provide an accurate representation of surface water quality at each location sampled. The owner or operator shall set out the procedures in a handbook or similar document and shall place the document in the operating record of the facility. The surface water monitoring procedures must include procedures and techniques for

(1) sample collections;

(2) sample preservation and shipment;

(3) analytical procedures;

(4) chain of custody control; and

(5) quality assurance and quality control.

(f) If surface water monitoring is required under (a) of this section, the owner or operator shall

(1) submit the results of surface water monitoring to the department after each sampling collection; and

(2) keep records of surface water monitoring conducted under this section with the operating record of the facility for at least five years after the monitoring was conducted.

(g) After a surface water monitoring program is established under this section, the owner or operator shall continue to comply with the surface water monitoring plan while the facility is active and throughout the monitoring period after the facility is closed.

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.815. Corrective action for problems discovered during visual and surface water monitoring or during an inspection

#### Statute text

(a) If a structural change in or damage to the facility or a monitoring device, or if a violation of a permit condition is observed during visual or surface water monitoring or during a department inspection, the owner or operator shall take action to correct the change, damage, or violation, to prevent the escape of waste or leachate, and to clean up waste that was disposed of in an unauthorized manner.

(b) If a statistically significant change in water quality is detected at the point of compliance as a result of the surface water monitoring program, the owner or operator shall

(1) determine the extent of contamination;

(2) determine if migration from the facility is the cause of the change in water quality;

(3) evaluate whether the water quality standards in 18 AAC 70 are threatened or exceeded at the point of compliance selected under 18 AAC 60.810; and

(4) submit written notification to the department within 30 days after detecting a violation of the applicable water quality standards unless the violation occurs in a water body known by the owner or operator to be in use as a drinking water supply, in which case the written notification to the department must take place immediately after the owner or operator discovers the violation.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

18 AAC 60.820. Groundwater monitoring and corrective action

Statute text

(a) Unless determined otherwise under (b) of this section, the groundwater monitoring and corrective action requirements of 18 AAC 60.820 - 18 AAC 60.860 apply to all solid waste disposal facilities except

(1) an asbestos monofill;

(2) an inactive reserve pit subject to 18 AAC 60.440;

(3) a biosolids application site;

(4) an inert waste monofill with a total volume of less than 1,000 cubic yards;

(5) a freezeback landfill under 18 AAC 60.228;

(6) a site subject to a general permit that does not require groundwater monitoring;

(7) a Class III MSWLF; or

(8) a Class II MSWLF, sewage solids monofill, wood waste monofill, or inert waste monofill located in an area that receives 25 inches or less in total precipitation each year.

(b) The department will require groundwater monitoring at a facility listed in (a) of this section if

(1) the owner or operator has knowledge that the facility is contaminating an aquifer of resource value;

(2) the department finds that groundwater monitoring and corrective action are necessary to protect an aquifer; or

(3) at a Class III MSWLF, the department has credible evidence that the water quality standards of 18 AAC 70 have been violated in a surface water body or an aquifer, or if conditions at the MSWLF are likely to result in harm to public health or the environment.

(c) The department will suspend the groundwater monitoring requirements of 18 AAC 60.820 - 18 AAC 60.860 for a Class I MSWLF if the owner or operator demonstrates that there is no potential for migration of a hazardous constituent from that MSWLF to an aquifer during the active life of the MSWLF and the post-closure care period. The department will suspend the groundwater monitoring requirements of 18 AAC 60.820 - 18 AAC 60.860 for a landfill other than a Class I MSWLF if the owner or operator demonstrates that there is no practical potential for migration of a hazardous constituent from that landfill to an aquifer of resource value during the active life of the landfill and post-closure care. The demonstration must be certified by a qualified groundwater scientist, approved by the department, and be based upon

(1) site-specific, field-collected measurements, sampling, and analyses of physical, chemical, and biological processes affecting fate and transport of hazardous constituents; and

(2) hazardous constituent fate and transport predictions that anticipate maximum, likely migration and that consider effects on public health and the environment.

(d) A new landfill must be in compliance with the applicable groundwater monitoring requirements of this section and 18 AAC 60.825 - 18 AAC 60.860 before waste may be placed in the landfill. The department will specify a schedule for the owner or operator of an existing or lateral expansion landfill to comply with the groundwater monitoring requirements specified in this section. In setting a compliance schedule under this subsection, the department will consider

(1) the potential for human exposure to pollution from the waste;

(2) the potential for environmental pollution;

- (3) the design of the landfill;
- (4) the age of the landfill;
- (5) the potential for pollution of any nearby aquifer;
- (6) the size of the landfill;
- (7) types and amounts of waste disposed of in the landfill, including sewage solids; and
- (8) the resource value of the underlying aquifer, including current and future uses, proximity and withdrawal rate of users, and groundwater quality and quantity.

(e) Once established at a landfill, groundwater sampling and analysis must be conducted as specified in 18 AAC 60.830 throughout the active life and post-closure care period of that landfill.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

AS 46.03.810

#### 18 AAC 60.825. Groundwater monitoring systems

##### Statute text

(a) Except as provided in 18 AAC 60.820, the owner or operator of a solid waste disposal facility subject to this chapter shall ensure that a groundwater monitoring system is installed with a sufficient number of wells, at locations and depths, that yield groundwater samples from the uppermost aquifer that represent the quality of

(1) background groundwater that has not been affected by leachate from the facility; determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area if

(A) hydrogeologic conditions do not allow the owner or operator to determine which wells are hydraulically upgradient; or

(B) sampling at other wells will provide an indication of background groundwater quality that is at least as representative as that provided by the upgradient wells; and

(2) groundwater passing the relevant point of compliance as established under (c) of this section; the downgradient monitoring wells must be installed at the relevant point of compliance; if a physical obstacle precludes installation of the wells at the relevant point of compliance, the owner or operator may, with department approval, install the downgradient monitoring wells at the closest practical distance hydraulically downgradient from the relevant point of compliance, if the wells are capable of detecting pollution in the uppermost aquifer.

(b) If a facility has more than one waste management area, the department will approve a facility-wide groundwater monitoring system instead of separate groundwater monitoring systems for each management area if the facility-wide system meets the requirements of (a) of this section and will be as protective of public health and the environment as individual monitoring systems for each area, based on the

(1) number, spacing, and orientation of the waste management area;

(2) hydrogeologic setting;

(3) facility's history;

(4) engineering design of the waste management areas; and

(5) type of waste accepted at the facility.

(c) A relevant point of compliance must be proposed by the owner or operator of a facility required to have a groundwater monitoring system under this chapter. It is subject to approval by the department and

(1) may be no more than 500 feet from the waste management boundary unless a facility-wide system is approved under (b) of this section;

(2) must be located on land owned by the owner of the facility;

(3) must ensure detection of groundwater pollution in the uppermost aquifer; and

(4) must be based upon

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the volume and physical and chemical characteristics of the leachate;

(C) the quantity, quality, and direction of the flow of groundwater;

(D) the proximity to, and groundwater withdrawal rate of, groundwater users;

(E) the availability of alternative drinking water supplies;

(F) the existing quality of the groundwater, including other sources of pollution and their cumulative effects on the groundwater, and whether the groundwater is used or might reasonably be expected to be used for drinking water;

(G) public health, safety, and welfare; and

(H) practicable capabilities of the owner or operator.

(d) Monitoring wells must be designed, installed, and decommissioned in accordance with (e) of this section and with the department's Recommended Practices for Monitoring



Well Design, Installation, and Decommissioning, April 1992, adopted by reference, and with 18 AAC 80.015(d).

(e) The number, spacing, and depths of monitoring wells must be

(1) determined based upon site-specific, technical, thorough characterization of

(A) aquifer thickness, groundwater flow rate, and groundwater flow direction, including seasonal and temporal fluctuations in groundwater flow; and

(B) saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit that constitutes the lower boundary of the uppermost aquifer, including thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities, and effective porosities; and

(2) certified by a qualified groundwater scientist or otherwise approved by the department as meeting the standards set out in this section; the scientist shall certify to the best of the scientist's knowledge that the wells are designed and placed where they are most likely to detect contamination from each waste management area; within 14 days after certification, the owner or operator shall submit written notification to the department that the certification is complete and shall place it in the operating record of the facility.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

Editor's note: The document adopted by reference in this section, Recommended Practices for Monitoring Well Design, Installation, and Decommissioning, April 1992, may be reviewed at the department's Juneau, Anchorage, and Fairbanks offices, is available for review at the Office of the Lieutenant Governor, or may be obtained from the department.

## 18 AAC 60.830. Groundwater sampling and analysis

### Statute text

(a) The owner or operator shall develop groundwater monitoring procedures, including consistent sampling and analysis procedures designed to ensure that monitoring results provide an accurate representation of groundwater quality at the background and downgradient wells. The owner or operator shall set out the procedures in a handbook or similar document and shall place the document in the operating record of the facility and provide written notification to the department when that occurs. The groundwater monitoring procedures must include procedures and techniques for

(1) sample collection;

(2) sample preservation and shipment;

(3) analytical procedures;

(4) chain of custody control;

(5) quality assurance and quality control;

(6) compliance with (g) of this section;

(7) evaluating the condition of the well at the time that the samples are taken; and

(8) monitoring well maintenance.

(b) The owner or operator shall ensure that the groundwater monitoring procedures include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Groundwater samples may not be field-filtered before laboratory analysis unless the owner or operator demonstrates that hazardous constituents released from the solid waste will not be filtered out or volatilized by the filtration process.

(c) Sampling procedures and frequency must protect public health and the environment.

(d) Each time groundwater is sampled, the owner or operator shall measure groundwater elevations in each well immediately before purging.

(e) Groundwater elevations in wells that monitor one facility must be measured within a period of time short enough to avoid temporal variations in groundwater flow that could preclude accurate estimation of groundwater flow rate and direction.

(f) The owner or operator shall establish background groundwater quality in one or more hydraulically upgradient or background wells for each of the monitoring parameters or constituents required in the particular groundwater monitoring program that applies to the facility as determined under 18 AAC 60.850 or 18 AAC 60.860. Background data must be collected in each of the four seasons before waste is placed in the waste management area being monitored. Background groundwater quality must be established at wells that are located hydraulically upgradient from the facility unless alternative sampling locations meet the requirements of AAC 60.825(a)(1).

(g) The number of samples collected to establish groundwater quality must be consistent with the statistical methods selected under (h) of this section. The sampling procedures must be those specified in

(1) 18 AAC 60.850(b) for detection monitoring; and

(2) 18 AAC 60.860 for assessment monitoring and corrective action.

(h) The owner or operator shall specify in the operating record one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent. The statistical method selected must be conducted separately for each hazardous constituent in each well. The methods to be selected from and used are:

(1) a parametric analysis of variance, followed by multiple-comparisons procedures to identify statistically significant evidence of contamination; the method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2) an analysis of variance based on ranks, followed by multiple-comparisons procedures to identify statistically significant evidence of contamination; this method must include

estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3) a tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4) a control chart approach that gives control limits for each constituent; or

(5) another approved statistical test method that meets the performance standards of (i) of this section.

(i) A statistical method selected under (h) of this section must comply with the following performance standards, as appropriate:

(1) the statistical method used to evaluate groundwater monitoring data must be appropriate for the distribution of chemical parameters or hazardous constituents; if the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data must be transformed, or a distribution-free theory test must be used; if the distributions for the constituents differ, more than one statistical method might be needed;

(2) if an individual well comparison procedure is used to compare an individual well's constituent concentration with background constituent concentrations or a groundwater protection standard, the test must be done at a Type I error level no less than 0.01 for each testing period; if a multiple-comparisons procedure is used, the Type I experiment-wise error rate for each testing period must be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained; this performance standard does not apply to tolerance intervals, prediction intervals, or control charts;

(3) if a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values must protect public health and the environment; the parameters must be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent being analyzed;

(4) if a tolerance interval or a predictional interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain must protect public health and the environment; these parameters must be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent being analyzed;

(5) the statistical method must account for data below the limit of detection with one or more statistical procedures that protect public health and the environment; a practical quantitation limit that is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and

(6) if necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) The owner or operator shall determine whether there is a statistically significant increase over background values for each parameter or constituent required to be analyzed by the particular groundwater monitoring program that applies to the facility, as determined under 18 AAC 60.850(a) or 18 AAC 60.860. In addition,

(1) to determine whether a statistically significant increase has occurred, the owner or operator shall compare the concentration of each parameter or constituent detected in a monitoring well to the background value of that constituent, according to the statistical methods and performance standards set out in (h) and (i) of this section; and

(2) after completing sampling and analysis, the owner or operator shall determine whether there has been a statistically significant increase over background at each monitoring well.

(k) The owner or operator shall furnish groundwater sampling data and analyses quarterly to the department in a format approved by the department and keep copies in the operating record of the facility for at least five years after the data and analyses are submitted to the department.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010  
AS 46.03.020  
AS 46.03.070  
AS 46.03.100  
AS 46.03.110  
AS 46.03.800  
AS 46.03.810

18 AAC 60.840. Parameters for surface water monitoring and groundwater detection monitoring

Statute text

(a) Unless a reduced list of parameters is designated under 18 AAC 60.850(a), during detection monitoring the owner or operator of a Class I MSWLF shall monitor groundwater for all contaminants listed in 40 C.F.R. 258, Appendix I, as amended through December 6, 1995, which is adopted by reference. In addition, the department will, in its discretion, require the owner or operator to test for one or more of the constituents and parameters listed in Table J in this section.

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(b) The owner or operator of a facility, other than a Class I MSWLF, subject to surface water or groundwater monitoring shall test for those parameters of 40 C.F.R. Part 258, Appendix I, adopted by reference in (a) of this section and of Table J, applied to the facility by the department. The department will determine which test parameters are required on a case-by-case basis after considering the following factors:

(1) the geological and hydrogeological characteristics of the site;

(2) the impact of manmade and natural features on the effectiveness of surface and groundwater monitoring;

(3) climatic factors that might influence the reliability of surface and groundwater monitoring procedures; and

(4) the effectiveness of indicator parameters in detecting a release.

History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

## Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

Editor's note: The documents adopted by reference in this section may be reviewed at the department's Juneau, Anchorage, and Fairbanks offices and, with the exception of the C.F.R. document, are also on file in the Office of the Lieutenant Governor. Standard Methods for the Examination of Water and Wastewater is available from the AWWA Bookstore, 6666 West Quincy Avenue, Denver, Colorado 80235. Methods for Chemical Analysis of Water and Wastes, EPA600/4-79-020, revised March 1983; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA600/4-82-057, July 1982; and Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) are available from National Technical Information Service, United States Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. DEC analytical methods AK101, AK102, and AK103 are available from the department, 410 Willoughby Avenue, Juneau, Alaska 99801-1795.

On 6/2/99, as required by AS 44.62.245, the department gave notice that the following amended version of material, previously adopted by reference in 18 AAC 60.840, Table J, would be in effect on 6/25/99: DEC analytical methods AK101 (Method for the Determination of Gasoline Range Organics), AK102 (Method for the Determination of Diesel Range Organics), and AK103 (Method for the Determination of Residual Range Organics), from the department's Underground Storage Tank Procedures Manual, as revised as of 3/1/99 and adopted by reference in 18 AAC 78.007. The amended version may be reviewed at the department's Juneau, Anchorage, and Fairbanks offices.

As of Register 151, October 151, October 1999, the regulations attorney updated a cross-reference in 18 AAC 60.840, Table J, note 2, so that the provision refers to 18 AAC 78.007 instead of 18 AAC 78.090, reflecting amendments to 18 AAC 78 that became effective 1/22/99, Register 149.

## 18 AAC 60.850. Detection monitoring program

### Statute text

(a) Except as provided in 18 AAC 60.460(c), detection monitoring is required in all groundwater monitoring wells at facilities required to have groundwater monitoring under this chapter. At a minimum, detection monitoring requires monitoring for the applicable constituents and parameters listed in 18 AAC 60.840. For a Class I MSWLF, the department will

(1) delete any of the monitoring parameters required by this subsection if the owner or operator demonstrates that the removed constituents are not reasonably expected to be in or derived from the waste contained in the MSWLF; and

(2) establish an alternative list of inorganic indicator parameters for the MSWLF, instead of some or all of the heavy metals identified in 18 AAC 60.840, if the alternative parameters provide a reliable indication of inorganic releases from the MSWLF to the groundwater; in determining alternative parameters, the department will consider the

(A) types, amounts, and concentrations of constituents in wastes managed at the MSWLF;

(B) mobility, stability, and persistence of hazardous constituents or their reaction products in the unsaturated zone beneath the MSWLF;

(C) detectability of indicator parameters, hazardous constituents, and reaction products in the groundwater; and

(D) concentration or values and coefficients-of-variation for monitoring parameters or constituents in the groundwater background.

(b) Except as expressly provided elsewhere in this chapter, the required frequency of groundwater monitoring is as follows:

(1) for a newly installed groundwater monitoring system, the first sampling must take place immediately after installation is completed; at that first sampling, the owner or operator shall collect at least four independent samples from each well; the owner or operator shall conduct at least three more samplings during the following two years, ensuring that samples are collected at least one time during each of the four seasons; during these subsequent samplings, the owner or operator shall collect at least one sample from each well;

(2) if a facility owner or operator constructs a new landfill, samples must be collected at least once during the first six months of landfill operation and, at that sampling, the owner or operator shall collect at least four independent samples from each well that monitors the landfill waste management area;



(3) where this chapter requires monitoring to begin upon the happening of a specific event, such as closure or installation of a cap, monitoring must be conducted in the manner and at the frequency required for a new system by (1) of this subsection;

(4) after completing the initial monitoring of (1) - (3) of this subsection, as applicable, sampling must continue for the remainder of the active life of the facility and during any post-closure care period, at a frequency established by the department; the frequency will be no less than annual and will be based on consideration of the

(A) lithology of the aquifer and unsaturated zone;

(B) hydraulic conductivity of the aquifer and unsaturated zone;

(C) groundwater flow rates;

(D) minimum distance between the upgradient edge of the waste management area and the downgradient monitoring well screen (minimum distance of travel);

(E) resource value of the aquifer; and

(F) evidence of groundwater or surface water contamination.

(c) If the owner or operator determines under 18 AAC 60.830(j) that there is a statistically significant increase over background for one or more of the constituents monitored, at any monitoring well at the point of compliance, the owner or operator

(1) shall, within 14 days after making the determination, place a notice in the operating record of the facility indicating which constituents have shown statistically significant changes from background levels, and submit written notification to the department that this notice was placed in the operating record;

(2) shall, within 90 days, either establish an assessment monitoring program that meets the requirements of 18 AAC 60.860, or make the demonstration allowed by (3) of this subsection; and

(3) may demonstrate that a source other than the monitored waste management area caused the pollution, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality; a report documenting this demonstration must be certified by a qualified groundwater scientist or otherwise approved by the department and must be placed in the operating record; if a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in this section; if, after 90 days, a successful demonstration is not made, the owner or operator shall initiate the assessment monitoring program required by 18 AAC 60.860.

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

18 AAC 60.860. Assessment monitoring and corrective action

#### Statute text

A person subject to 18 AAC 60.800 - 18 AAC 60.850 shall perform assessment monitoring and corrective action in accordance with 40 C.F.R. 258.55 - 258.58, as amended through December 6, 1995, which are adopted by reference. The terms "municipal solid waste landfill," "MSWLF," and "MSWLF Unit" used in those federal regulations include all facilities required to have groundwater monitoring under this chapter.

#### History

History: Eff. 1/28/96, Register 137

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.070

AS 46.03.100

AS 46.03.110

AS 46.03.810

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#### Article 8

#### General Provisions

## Section

900. Waivers.

990. Definitions.

18 AAC 60.900. Waivers

## Statute text

(a) Subject to (b) of this section, the department will grant a waiver from one or more provisions of this chapter, except a provision applicable to a Class I MSWLF and required by 40 C.F.R. 258, revised as of July 1, 1998. To secure a waiver under this section, the applicant must identify, in writing, the provision sought to be waived and must demonstrate that

(1) compliance with the identified provision would cost significantly more than the value of the environmental benefit, public health risk reduction, and nuisance avoidance that could be achieved through compliance with the identified provision; or

(2) the proposed alternative action will provide equal or better environmental protection, reduction in public health risk, and control of nuisance factors than compliance with the identified provision.

(b) In granting a waiver, the department will impose specific conditions as necessary to assure that public health and welfare and the environment are protected.

## History

History: Eff. 1/28/96, Register 137; am 7/11/99, Register 151

## Annotations

Authority: AS 44.06.020

AS 46.03.010

AS 46.03.020

18 AAC 60.990. Definitions

## Statute text

Unless the context indicates otherwise, in this chapter,

(1) "accepts for disposal" means the act of

(A) accepting solid waste at a solid waste disposal facility and then disposing of the waste without treating the waste; or

(B) disposing of waste or residue that is left after solid waste has been incinerated or otherwise treated;

(2) "accumulation" means the collection of waste or discarded material until the waste or material can be shipped for disposal or another use;

(3) "active life" means the period of operation beginning with the first receipt of solid waste and ending at completion of closure activities;

(4) "active portion" means that part of a facility or unit in which disposal operations have been or are being conducted, but does not include a facility or unit with a complete final cover;

(5) "active thaw zone" means the surface layers of organic matter and mineral soils that thaw each year in areas of permafrost;

(6) "agronomic rate for nitrogen" means the maximum amount of nitrogen-containing material that can be spread evenly over an area so that all of the nitrogen in the material is used by the crops grown onsite, taking into account any residual nitrogen present in the soil or the addition of another fertilizer;

(7) "airport" means a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities;

(8) "amalgamated" means to mix or alloy a metal with mercury;

(9) "animal waste" means discarded material originating from an animal inoculated with an infectious agent during research, production of biologicals, or pharmaceutical testing; "animal waste" includes the carcass, body parts, blood, and bedding of any animal known to have been in contact with an infectious agent;

(10) "application site" means a facility subject to land application of sewage solids or biosolids;

(11) "approved" means approved by the department;

(12) "aquifer" means a geological formation, group of formations, or portion of a formation capable of yielding significant quantities of groundwater to wells or springs;

(13) "aquifer of resource value" means an area beneath the ground that is used as a drinking water supply source, has a reasonable potential to be used as a drinking water supply source, or has some other potential use for which uncontaminated water might be important;

(14) "area susceptible to mass movement" means an area of influence, including an area characterized as having an active or substantial possibility of mass movement, when the movement of earth material at, beneath, or adjacent to a MSWLF, because of natural or human-induced events, results in the downslope transport of soil and rock material by means of gravitational influence, including landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall;

(15) "asbestos" means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite;

(16) "aufeis" means ice that is formed as water flows over a frozen surface;

(17) "barrier berm" means an above-grade containment structure used in regions of continuous permafrost;

(18) "barrier layer" means a continuous horizontal layer of natural or synthetic materials through which the movement of liquid is prevented or greatly restricted;

(19) "base flood" means a flood that has a one percent or greater chance of recurring in any year, or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period;

(20) "biosolids" means solid, semi-solid, or liquid residue generated during treatment of domestic sewage in a treatment works; "biosolids" includes domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from biosolids; "biosolids" does not include ash generated during the

firing of biosolids in a biosolids incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works;

(21) "bird hazard" means an increase in the likelihood of a bird-aircraft collision that might cause damage to the aircraft or injury to its occupants;

(22) "blood and blood products" means discarded waste human blood and blood components, including serum and plasma, and materials containing free-flowing blood and blood components;

(23) "cap" means a combination of natural or synthetic materials, including a barrier layer and final cover, placed on a closed waste containment structure;

(24) "Category I nonfriable asbestos-containing material" means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products that contain more than one percent asbestos, determined using the method in 40 C.F.R. 763, Subpart E, Appendix E, Polarized Light Microscopy, revised as of July 1, 1997, adopted by reference;

(25) "Category II nonfriable asbestos-containing material" means asbestos-containing material such as shingles, wallboard, or cementitious pipe that

(A) contain more than one percent asbestos, determined using the method in 40 C.F.R. 763, Subpart E, Appendix E, Polarized Light Microscopy, revised as of July 1, 1997, adopted by reference; and

(B) when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure;

(26) "Clean Water Act" means the "Federal Water Pollution Control Act," 33 U.S.C. 1251 - 33 U.S.C. 1387, as amended through August 21, 1998;

(27) "closed portion" means that part of a facility or unit that has been closed in accordance with this chapter;

(28) "commercial solid waste" means all types of solid waste generated by a store, office, restaurant, warehouse, or other nonmanufacturing activity; "commercial solid waste" does not include residential and industrial wastes;

(29) "containment structure" means a type of waste management area in which an arrangement of dikes, walls, barrier berms, pits, ice storage pits, liners, pads, cover material, and other similar constructs are used to hold solid waste and to prevent the escape, seepage, or discharge of solid waste and leachate from, or infiltration of water or precipitation into, the waste management area;

(30) "cover material" means a natural or synthetic material, or combination of materials, used to cover solid waste disposed of at a solid waste disposal facility or unit;

(31) "crumb rubber" means vehicle tires that have been chopped and ground to a grain size less than or equal to one-quarter inch in diameter;

(32) "crystallization point" means the temperature below 32° F at which ice crystals begin to form;

(33) "cultures and stocks" means discarded cultures and stocks of infectious agents and associated microbiologicals, including human and animal cell cultures from medical and pathological laboratories, cultures and stocks of infectious agents from research and industrial laboratories, waste from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, or mix cultures of infectious agents;

(34) "demonstrate" means to make a showing of fact to the department; unless a different standard is established on a case-by-case basis, a "demonstration" required by this chapter must show the asserted conclusion by a preponderance of evidence;

(35) "department" means the Alaska Department of Environmental Conservation;

(36) "designated portion" means the active portion of a facility, including the closed portion and that portion set aside to become an active portion in the future;

(37) "disease vector" means a carrier that can transmit a pathogen from one organism to another, and includes flies and other insects, rodents and other small mammals, birds, and vermin;

(38) "displacement" means the relative movement of any two sides of a fault, measured in any direction;

(39) "disposal" means the deposit of a solid or liquid waste into or onto the water or land of the state, whether the waste is contained or uncontained, by discharging, injecting, dumping, spilling, leaking, placing, discarding, or abandoning the waste so that the waste or any part or byproduct of the waste might enter the environment;

(40) "domestic wastewater" has the meaning given in 18 AAC 72.990;

(41) "drilling waste" means exploration and production waste exempted from RCRA Subtitle C that is associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy; "drilling waste" includes drilling muds, cuttings, hydrocarbons, brine, acid, sand, and emulsions or mixtures of fluids produced from and unique to the operation or maintenance of a well, whether naturally occurring or added for the operation or productivity of the well; "drilling waste" is only waste described in this paragraph that is derived intrinsically from primary field operations, produced from a well, and removed at the drill site or removed at a crude oil production facility by crude oil or wastewater treatment process before custody transfer of the crude oil; "drilling waste" does not include spent solvents and oils from equipment maintenance activities, discarded chemical products, or fuels;

(42) repealed 9/7/2002;

(43) "emergency relief volume" means the space necessary to contain material expelled from an oil or gas well during an underground pressure imbalance; the minimum emergency relief volume is routinely one and one-half times the well bore or casing volume;

(44) "EPA" means the United States Environmental Protection Agency;

(45) "existing MSWLF" means a municipal solid waste landfill that was receiving solid waste as of October 9, 1993;



(46) "existing or developing population" means a community of persons residing in close proximity to each other, with a concentration equivalent to at least 120 persons per one-quarter section (160 acres);

(47) "explosive gas" means methane (CH<sub>4</sub>);

(48) "facility" means all contiguous land and structures, other appurtenances, and improvements on land used for treatment, storage, or disposal of solid waste; "facility" includes solid waste disposal facilities, solid waste processing facilities, and treatment works;

(49) "facility structure" means any buildings, sheds, or utility or drainage lines on the facility;

(50) "fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side;

(51) "floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters; "floodplain" includes flood-prone areas of offshore islands, that are inundated by the 100-year flood; for purposes of this paragraph, "100-year flood" means a flood that has a one percent or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period;

(52) "fluid management plan" means the use of snow removal or any dewatering practice to keep to a minimum the hydrostatic head of fluids and drilling wastes in a containment structure; "fluid management plan" includes approved disposal of liquid wastes in an injection well, or by other approved discharge to the land and water of the state;

(53) "freezeback" means the process of freezing solid waste in place as a means to prevent the migration of solid waste and leachate from the designated portion of a facility or unit;

(54) "friable asbestos material" means material that

(A) contains more than one percent asbestos, determined using the method in 40 C.F.R. 763, Subpart E, Appendix E, Polarized Light Microscopy, revised as of July 1, 1997, adopted by reference; and

(B) when dry, can be crumbled, pulverized, or reduced to powder by hand pressure;

(55) "gas condensate" means the liquid generated as a result of a gas recovery process at a MSWLF;

(56) "groundwater" means water below the land surface in the zone of saturation;

(57) "hard rock mine" means a mining facility, on the surface or underground, in which mineral resources are extracted from consolidated or lithified geologic formations;

(58) "hazardous constituent" means a constituent listed in 40 C.F.R. Part 258, Appendices I or II, revised as of July 1, 1997;

(59) "hazardous waste" has the meaning given in AS 46.03.900;

(60) "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present; "Holocene" is generally considered to be 10,000 years;

(61) "household waste" means solid waste; "household waste" includes garbage, trash, and sanitary waste in septic tanks, derived from a household; for purposes of this paragraph, "household" includes single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas;

(62) "inactive reserve pit" means a drilling waste disposal area, containment structure, or group of containment structures where drilling waste has not been disposed of after January 28, 1996 and at which the owner or operator does not plan to dispose of drilling waste;

(63) "industrial solid waste" means solid waste generated by a manufacturing or industrial process that is not a hazardous waste regulated under 42 U.S.C. 6921 - 42

U.S.C. 6939b (RCRA, Subtitle C, as amended through August 21, 1998); "industrial solid waste" includes polluted soil, inorganic chemicals, iron and steel manufacturing waste, leather and leather products, waste from nonferrous metals manufacturing and foundries, drilling waste, organic chemicals, plastic resin waste, sludges and boiler ash from the pulp and paper industry, rubber and miscellaneous plastic products, textile manufacturing waste, and water treatment chemicals; "industrial solid waste" does not include coal ash, slaughterhouse waste, wood waste, inert waste, or mining waste;

(64) "inert waste" means solid waste that has a low potential to pollute air or water, and that does not normally attract wildlife; "inert waste" includes coal power plant ash, scrap metal, auto fluff, construction and demolition waste, and pavement rubble; "inert waste" does not include asphalt material that contains asbestos;

(65) "injection well" means a confined subsurface porous soil or rock formation for the disposal of waste;

(66) "karst terrane" means an area where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock; in this paragraph, "characteristic surface and subterranean features" include sinkholes, sinking streams, caves, large springs, and blind valleys;

(67) "landfill" means an area of land, or an excavation in which solid wastes are placed for permanent disposal, and that is not an application site, injection well, reserve pit, or waste pile;

(68) "lateral expansion" means a horizontal expansion of the waste boundaries of an existing solid waste disposal facility;

(69) "leachate" means liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from the wastes;

(70) "leachate collection system" means a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a landfill;

(71) "liner" means a continuous layer of natural or synthetic materials beneath or on the sides of a landfill or solid waste containment structure, or a vertical layer installed in a

barrier berm that extends continuously from the base of the active thaw zone to the top of the barrier berm to prevent solid waste and leachate from escaping from the landfill or the containment structure;

(72) "liquid waste" means waste material that is determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), adopted by reference in 18 AAC 60.365;

(73) "lithified earth material" means rock, including naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments; "lithified earth material" does not include human-made material, such as fill, concrete, and asphalt, or unconsolidated earth material, soil, or regolith lying at or near the earth surface;

(74) "litter" has the meaning given that term in AS 46.06.150;

(75) "lower explosive limit" means the lowest percent by volume of a mixture of explosive gases that will propagate a flame in air at 25° C and normal atmospheric pressure;

(76) "major road system" means a system of connected pioneer roads and community roads as described in 17 AAC 05.030, with a total length of 100 miles or more;

(77) "maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment;

(78) "medical waste" means laboratory waste consisting of discarded cultures and stocks of infectious agents and associated microbiologicals; pathological wastes; selected isolation waste; used and unused discarded sharps; animal waste; human blood or blood products; and other waste defined as "regulated waste" in 29 C.F.R. 1910.1030(b), revised as of July 1, 1997;

(79) "medical waste incinerator" means

(A) a two-chambered incinerator that holds waste for at least one second at temperatures at or above 1700ø F in the secondary chamber, and operates at 1200ø F or more in the primary chamber; or

(B) a thermal oxidation unit approved by the department;

(80) "monofill" means a landfill or drilling waste disposal facility that receives primarily one type of solid waste and that is not an inactive reserve pit;

(81) "MSWLF" means a municipal solid waste landfill;

(82) "municipal solid waste landfill" and "MSWLF" mean an area of land or an excavation that receives household waste, and that is not an application site, surface impoundment, injection well, or waste pile; "municipal solid waste landfill" includes new MSWLF, an existing MSWLF, and a lateral expansion of an existing MSWLF;

(83) "new MSWLF" means a municipal solid waste landfill unit that did not receive waste before October 10, 1993;

(84) "nondomestic wastewater" has the meaning given in 18 AAC 72.990;

(85) "nonfriable asbestos material" means asbestos-containing material that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure;

(86) "open burning" means the combustion of solid waste without

(A) control of combustion air to maintain adequate temperature for efficient combustion;

(B) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(C) control of the emission of the combustion products;

(87) "operator" means the person or persons responsible for the overall operation of a facility;

(88) "owner" means the person or persons who own a facility; unless expressly excluded in a particular section, "owner or operator" includes the holder of a permit issued under this chapter regardless of whether the permittee otherwise fits within the definitions given of those terms;

(89) "pathological waste" means discarded pathological waste, including human tissues, organs, and body parts removed during surgery, autopsy, or another medical procedure;

(90) "PCB waste" means polychlorinated biphenyls waste;

(91) "permafrost" means soil in which the naturally occurring temperature has remained below 32° F for two or more consecutive years;

(92) repealed 9/7/2002;

(93) "permanently frozen state" means the condition at which both of the following occur:

(A) the temperature of the waste is perpetually at or colder than 0.5° F below the crystallization point of the waste; and

(B) migration of leachate and other waste constituents from the buried waste is prevented;

(94) "pH" means the logarithm of the reciprocal of the hydrogen ion concentration;

(95) "placer mining" means obtaining, by washing or dredging, minerals from a glacial or alluvial deposit of sand or gravel that contains eroded particles of valuable minerals;

(96) "polluted run-off water" means water that violates a criterion of 40 C.F.R. 257.3-3, revised as of July 1, 1997, adopted by reference, the water quality standards of 18 AAC 70, or the drinking water standards of 18 AAC 80;

(97) "polluted soil" means soil or residue that is not a regulated hazardous waste and meets any of the following criteria; soil that is not polluted under this section may be considered "contaminated soil" under 18 AAC 75 or 18 AAC 78:

(A) contains a hazardous substance in a concentration exceeding an "over 40 inch zone" migration to groundwater level set in 18 AAC 75.341 Table B1 or Table B2, as amended as of August 8, 2002, adopted by reference; or

(B) contains petroleum contaminated media or debris associated with an underground storage tank that is exempted from regulation as a hazardous waste under 40 C.F.R. 261.4(b)(10), revised as of July 1, 1998, adopted by reference;

(C) contains polychlorinated biphenyls (PCBs) in concentrations greater than 10 ppm;

(98) "pollution" has the meaning given in AS 46.03.900;

(99) "poor foundation conditions" means an area where features exist that indicate a natural or human-induced event might result in inadequate foundation support for the structural components of an solid waste disposal facility;

(100) "Portland cement" means a material used primarily as the ingredient that binds the aggregate together in concrete; concrete made with Portland cement differs from asphalt cement in that Portland cement hardens due to the hydration of lime, while asphalt cement, which uses hydrocarbons as a binder, hardens as it cools;

(101) "public water system" means a source of water, intake works, collection system, treatment works, storage facility, or distribution system from which water is available for human consumption; "public water system" includes systems providing water to more than one residential dwelling unit, or to a factory, office building, restaurant, school, or other similar facility; "public water system" does not include a system serving only a single-family residence;

(102) "pumpable fluids" means fluids that can be readily pumped or made to flow under normal conditions at temperatures above freezing;

(103) "putrescible waste" means solid waste that contains organic matter capable of being decomposed by microorganisms and of such a character and proportion as to cause obnoxious odors and to be capable of attracting or providing food for birds or animals;

(104) "qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by professional certification or completion of accredited university programs that enable that scientist or engineer to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action;

(105) "RCRA" means the Resource Conservation and Recovery Act, 42 U.S.C. 6901 - 42 U.S.C. 6992k, as amended through August 21, 1998;

(106) "recycling" means the process by which a material that would otherwise be destined for disposal is collected, reprocessed, or remanufactured, and then reused;

(107) "registered engineer" means an engineer who is registered in this state under AS 08.48.211;

(108) "regulated asbestos-containing material or RACM" means

(A) friable asbestos material;

(B) Category I nonfriable asbestos-containing material that has become friable;

(C) Category I nonfriable asbestos-containing material that will be, or has been, subject to sanding, grinding, cutting, or abrading; and

(D) Category II nonfriable asbestos-containing material that has a high probability of becoming, or has become, crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of a demolition or renovation operation regulated by 40 C.F.R. 61.145, revised as of July 1, 1997, or in the course of a disposal operation regulated under this chapter;



(109) "regulated hazardous waste" means a waste that is a hazardous waste, as defined in 40 C.F.R. 261.3, revised as of July 1, 1998, adopted by reference, that is not excluded from regulation as a hazardous waste under 40 C.F.R. 261.4(b), revised as of July 1, 1998, adopted by reference, and was not generated by a conditionally exempt small quantity generator;

(110) "reinforced barrier berm" means a barrier berm in which a liner is installed;

(111) "representative sample" means a sample the chemical makeup or characteristics of which are indicative of the in situ material from which it came;

(112) "resource recovery" means the recovery of materials or energy from solid waste for industrial use, agriculture, heat production, power production, or another process or purpose, including recycling;

(113) "road base" means the areas under and adjacent to the surface of a road that are not normally in contact with standing water;

(114) "run-off" means rainwater, leachate, or other liquid that drains over land from any part of a facility;

(115) "run-on" means rainwater, leachate, or other liquid that drains over land onto any part of a facility;

(116) "salvaging" means the controlled removal of waste materials for recycling or reuse;

(117) "seismic impact zone" means an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a decimal fraction of the earth's gravitational pull, will exceed 0.10g in 250 years;

(118) "selected isolation waste" means discarded waste material that is contaminated with excretions, exudates, and secretions from patients with highly communicable diseases, and that is treated in isolation; "selected isolation waste" includes blood and blood components, and sharps;

(119) "septage" means liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage; "domestic sewage" does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant;

(120) "sewage solids" means waste that passes the paint filter test (EPA Test Method 9095, published in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), adopted by reference in 18 AAC 60.365), and has been removed from a wastewater treatment system, sewer, septic tank, or other wastewater handling equipment; "sewage solids" includes lagoon dredge, sewer cleanout waste, barscreen grit, and wastewater treatment sludge;

(121) "sewage solids monofill" means a monofill used for disposal of sewage solids, including a "surface disposal site" as defined in 40 C.F.R. 503.21, revised as of July 1, 1997;

(122) "sharps" means discarded implements or parts of equipment used in animal or human patient care, medical research, or industrial laboratories, including hypodermic needles, syringes, Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, broken or unbroken glassware that has been in contact with an infectious agent, slides, cover slips, and unused, discarded implements, or parts of equipment;

(123) "site" means the land, structures, and equipment at a given location associated with a facility subject to this chapter;

(124) "solid waste" has the meaning given in AS 46.03.900;

(125) "solid waste disposal facility" has the meaning given in AS 46.03.900;

(126) "solid waste management system" means a comprehensive waste management regime that might extend beyond the boundary of a single facility; "solid waste management system" includes transport, storage, treatment, and disposal operations;

(127) "solid waste processing facility" has the meaning given in AS 46.03.900;

(128) "spoil and overburden" means soil, rock, and other material that is removed during a mining operation to gain access to ore;

(129) "store" means holding for a temporary period, at the end of which the material being held is treated, disposed of, or otherwise relocated;

(130) "structural component" means a liner, leachate collection system, final cover, run-on or run-off system, and any other component used in the construction and operation of a waste management area that is necessary to protect public health, safety, and welfare and the environment;

(131) "surface impoundment" or "impoundment" means a facility or part of a facility that is a natural topographic depression, human-made excavation, or diked area formed primarily of earthen materials, although it may be lined with human-made materials, that is designed to hold an accumulation of liquid wastes or wastes containing free liquids and that is not an injection well; "surface impoundments" includes holding storage, settling, and aeration pits, ponds, and lagoons;

(132) "surface transportation" means pioneer roads and community roads as described in 17 AAC 05.030, or a railroad system that routinely handles freight; "surface transportation" does not include barges or any other form of water craft;

(133) "surface water" means water

(A) open to the atmosphere and subject to surface run-off; and

(B) from springs, wells, or other collectors directly influenced by surface water;

(134) "tailings" means refuse or dross remaining after ore from a mining operation has been processed;

(135) "thermal instability" means the potential for subsurface degradation of the soils due to thawing in permafrost or ice-rich areas;

(136) "transfer station" means a public use facility for the deposit and temporary storage of solid waste, "transfer station" includes a transfer station located at a landfill; "transfer station" does not include a facility for the storage of a regulated hazardous waste;

(137) "treat" means subjecting waste to physical, mechanical, chemical, biological, or thermal processes that reduce the volume or toxicity, or change the characteristics of the waste;

(138) "treatment works" has the meaning given in AS 46.03.900;

(139) "twenty-five-year storm" or "25-year storm" means a storm that has no more than a four percent chance of recurring in any given year or a storm of a magnitude equaled or exceeded once in 25 years on the average over a significantly long period;

(140) "Type I error" means in a statistical test, incorrectly indicating pollution or an increase in pollution;

(141) "unsaturated 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;

(142) "unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of a landfill's structural components responsible for preventing releases from the landfill; "unstable area" includes poor foundation conditions, areas susceptible to mass movements, or earthquake-induced failures, areas underlain by permafrost, and karst terranes;

(143) "uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within, or immediately downgradient of, the facility's boundary;

(144) "washout" means the carrying away of solid waste by waters of the base flood;

(145) "waste disposal permit" means a permit issued under this chapter;

(146) "waste incompatible with freezeback" means waste that prevents the buried waste in a landfill from attaining a permanently frozen state within the time period allowed in a permit issued under this chapter;

(147) "waste management area" means that part of a facility in which solid wastes are treated, stored, or disposed of;

(148) "waste management boundary" means a plane surface located at the hydraulically downgradient limit of a waste management area, extending down into the uppermost aquifer;

(149) "waste pile" or "pile" means any noncontainerized accumulation of solid, nonflowing waste;

(150) "waste rock" means rock that has been removed during mining or advanced exploration that does not contain sufficient metallic minerals to constitute ore; "waste rock" includes spoil and overburden;

(151) "waste source reduction" means a change in a habit or process that results in less waste being produced; "waste source reduction" does not include physical processing of waste in balers or incinerators;

(152) "water" or "waters" has the meaning given in AS 46.03.900;

(153) "wetlands" has the meaning given in 40 C.F.R. 232.2, revised as of July 1, 1997;

(154) "wood waste" means a solid waste that is generated during the transfer or processing of timber; "wood waste" includes wood chips, bark, sawdust, and other such woody debris;

(155) "large inert landfill" means a landfill that is designed to accept more than 1000 cubic yards of inert waste;

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

(A) interfere with the integrity of activities or improvements designed to encapsulate or control pollution at a facility, or

(B) result in human or environmental exposure to pollution;

(157) "acute hazardous waste" means a waste identified as an acute hazardous waste under 40 C.F.R. 261.30 - 261.33, revised as of July 1, 1998, adopted by reference;

(158) "conditionally exempt small quantity generator" has the meaning given in 40 C.F.R. 261.5, revised as of July 1, 1998, adopted by reference;

(159) "post-closure period" means the time period following closure of a facility during which monitoring or care of the facility is required under this chapter; if a closure report or certification is required, the post-closure period begins when the report or certification requirement is satisfied and ends when the conditions of 18 AAC 60.270 are met;

(160) "food waste disposal facility" means a facility used to dispose of

(A) slaughterhouse waste;

(B) waste from a seafood processing facility subject to 18 AAC 34; or

(C) waste from a food processing establishment subject to 18 AAC 31;

(161) "grind-and-inject facility" means a facility that processes drilling waste and disposes of it in an injection well;

(162) "household hazardous waste" means solid waste that may have hazardous constituents, but that is not regulated under 42 U.S.C. 6921 - 6939e (Resource Conservation and Recovery Act, subtitle C) because it is generated by a household; for purposes of this paragraph, "household" includes single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas;

(163) "household hazardous waste storage facility" means a facility used for the collection or storage of

(A) household hazardous waste; or

(B) conditionally exempt small quantity generator waste that is not regulated under 42 U.S.C. 6921 - 6939e (Resource Conservation and Recovery Act, subtitle C) of disposed of in accordance with those provisions;

(164) "untreated medical waste" means medical waste that has not been treated in an autoclave according to the manufacturer's instructions or incinerated;

(165) "wetted surface" means that area of a solid waste disposal cell or trench excavation surface that is in contact with solid or liquid waste;

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

#### History

History: Eff. 1/28/96, Register 137; am 10/29/98, Register 148; am 7/11/99, Register 151; am 6/30/2002, Register 162; am 9/7/2002, Register 163

#### Annotations

Authority: AS 44.46.020

AS 46.03.010

AS 46.03.020

AS 46.03.100

AS 46.03.110

AS 46.03.800

AS 46.03.810

AS 46.06.010

AS 46.06.080

Editor's note: The documents referred to in this section may be reviewed at the department's Juneau, Anchorage, and Fairbanks offices.

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