



Sewage Solids Landfill Permit Application

Alaska Department of Environmental Conservation
Solid Waste Program

DEC Office Only:

Landfill Name: _____

Authorization #: _____

Instructions:

This application is for a new permit or a permit renewal for a landfill for sewage solids from domestic wastewater.

In the application, the term **“facility”** refers to all land, structures, other appurtenances, and improvements on land used for treatment, storage, or disposal of solid waste.

If a required item is not applicable, please explain why. Include all the applicable information for each item regardless if it has been previously submitted. The specific location of information within each submitted document or attachment must also be noted for each item.

The application must be stamped and signed by a registered engineer, in accordance with 18 AAC 60.210(c).

For a new facility or significant change to an existing facility, prepare a draft application with a list of questions and schedule a meeting with the ADEC Solid Waste Program.

Section 1. Property Information

Facility Name:

Facility Address:

Facility City:

Facility Zip:

Legal Property Description:

Section:

Township:

Range:

Meridian:

General Property Description:

Latitude:

Longitude:

Landowner:

Contact Name:

Address:

City:

State:

Zip:

Email:

Phone:

Section 2. Contact Information

Permit Applicant (Co. or Entity):

Contact Name:

Address:	City:	State:	Zip:
Email:	Phone:		
Type of Entity:	Government	Corporation	Other:
State of Incorporation or Registration:		Alaska Business License Number:	
IRS Tax ID Number:			

Facility Owner (if different than applicant):

Contact Name:

Address:	City:	State:	Zip:
Email:	Phone:		

Facility Operator (if different than applicant):

Contact Name:

Address:	City:	State:	Zip:
Email:	Phone:		

Agent/Consultant:

Contact Name:

Address:	City:	State:	Zip:
Email:	Phone:		

Section 3. Fees

A check or money order for the appropriate fees [listed in 18 AAC 60.700(a) Table E-1] must be submitted with the permit application. If not included, the application will be returned to the applicant.

Submit payment for the first year's annual fee with the initial application for a facility. No fee is required for permit renewal applications; annual fees will be billed each year.

You will be billed separately for time spent reviewing waiver requests.

This application is for a:	New Permit	Permit renewal
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Section 4. Cover Letter and Certifications

Submit a cover letter with the following information and signature.

1.	A statement indicating you wish to obtain a permit for a sewage solids landfill.
2.	Evidence showing the proposed facility meets the requirements for a sewage solids landfill.
3.	A brief general description of the topography, geology, climate, surface hydrology and groundwater hydrology at the facility.
4.	A statement that you are aware of all applicable local ordinances and zoning requirements, and a list of any other required permits or authorizations.
5.	The applicant must submit a signed copy of the application cover letter.
6.	The applicant must submit a signed copy of the following statement, which may be added exactly as shown in the box below to the cover letter. As an alternative, the applicant may sign this sheet and submit it as an attachment to the cover letter.

I certify, under penalty of perjury, that all of the information and exhibits in this cover letter and application are true, accurate, and complete.

Printed Name:

Title:

Signature:

Date:

All applications must be signed as follows per 18 AAC 15.030:

- **Corporations:** A principal executive officer, an officer that is no lower than the level of vice president, or a duly authorized representative who is responsible for the overall management of the project or operation.
- **Municipal, state, federal, or other public entity:** A principal executive officer, ranking elected official, or duly authorized employee.
- **Partnerships:** A general partner.
- **Sole proprietorship:** The proprietor.

Section 5. Waste Handling and Processing Information

1. **List the amount of the sewage solids you expect to receive at the facility each year from each source:**

<u>Quantity</u>		<u>Source/Generator</u>
Tons	Cubic yards	
TOTAL		

2. **Check the type(s) of waste processing done at the facility before waste is disposed:**

Dewatering	Composting	Other:
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3. **State which vector attraction reduction method of 40 CFR 503.33 will be met for the sewage solids, and list any laboratory analyses required to meet the requirement.**

4. **If not using the vector attraction reduction method in 40 C.F.R. 503.33(b)(11), state which pathogen reduction method of 40 CFR 503.32 will be met for the sewage solids, and list any laboratory analyses required to meet the requirement.**

Section 6. Location Information

Please specifically identify the attachment that addresses each requested item.

1. Property Ownership and Location Information [18 AAC 60.210]		<u>Identify Attachment</u>
a.	Attach a copy of the deed or another legal document that identifies the landowner(s) of the facility.	
b.	If the applicant is not the landowner, attach a written and notarized statement or a copy of any lease agreement signed by the landowner showing that the landowner consents to the facility and placement of a notation to the deed of the property as required by 18 AAC 60.490.	
2. Surface & Storm Water Information [18 AAC 60.210; 18 AAC 60.225; 18 AAC 60.410]		
a.	Distance to nearest surface water body:	feet
b.	Provide information on potential for surface water (storm water or ponds, streams, etc.) to run-on to the facility.	
c.	Provide information on the potential for sediment carried by run-off from the facility to impact nearby surface waters.	
d.	If the facility is located in a floodplain, attach documentation to demonstrate the facility will not restrict the flow of the flood, reduce the temporary storage capacity of the floodplain, and is designed to protect against washout of the solid waste.	
e.	For new facilities or lateral expansion, attach a Wetlands Determination from the U.S. Army Corps of Engineers or information from the National Wetlands Inventory documenting that the area is not designated as wetlands. <i>Note: If the new facility or lateral expansion is located in a wetland, you must also complete an ADEC Additional Wetlands Information Form.</i>	
3. Groundwater Information [18 AAC 60.040; 18 AAC 60.210; 18 AAC 60.217]		
a.	Attach information documenting the highest measured level of groundwater under the facility. The base of any new unlined cells or lateral expansions may not be located closer than 10 feet above groundwater unless constructed two feet or more above ground surface.	
b.	Annual precipitation:	inches
c.	Source used to determine annual precipitation:	
4. Permafrost Information [18 AAC 60.210; 18 AAC 60.227]		
a.	If the facility is located on permafrost, provide details on why there is not a practical alternative to the location.	
b.	If the facility is located in discontinuous permafrost, provide details of what is known regarding the permafrost (e.g. total depth, depth of active zone, areal extent, temperature, etc.).	

Section 6. Location Information (continued)

5.	Maps Attach maps and/or aerial photographs as needed to show the following. You may submit maps that show more than one of the required items. For example, one map can show property boundaries, wetlands, and surface water locations, etc. [18 AAC 60.040; 18 AAC 60.210; 18 AAC 60.410]	Identify Attachment
	a. Location of the facility property boundaries.	
	b. Location of surface water bodies and streams within 200 feet of the facility property boundaries.	
	c. Location of the known or inferred boundaries of permafrost or discontinuous permafrost within 500 feet of the facility property boundaries.	
	d. Location of all drinking water wells within a half mile. There should be no wells within 500 feet of the facility property boundaries.	
	e. Location of the boundary of any 100-year floodplain in the area.	
	f. Location of any documented earthquake faults or unstable areas within 200 feet of the facility property boundary.	

Section 7. Facility Design

A complete set of design drawings with the following information must be submitted, with drawings included for the design of the facility, as appropriate. Please ensure that the documentation represents the entire facility.

1.	Facility map(s) which show onsite conditions including: [18 AAC 60.210; 18 AAC 60.220; 18 AAC 60.225; 18 AAC 60.233]	Identify Attachment
	a. All previous, existing and planned disposal areas. The map should demonstrate the distance from the disposal cell to the nearest point on the property line; all waste must be at least 50 feet from the facility property boundaries.	
	b. Location of any structures within 500 feet of the disposal cell(s)	
	c. Fences, gates, berms and other access control devices around the facility.	
	d. Access roads to and within the facility.	
2.	Plan view drawings with contour lines <u>and</u> cross section drawings that show: [18 AAC 60. 210; 18 AAC 60.410; 18 AAC 60.470]	
	a. Any planned excavations before waste cell construction.	
	b. All roads, ditches, trenches and berms associated with the facility.	
	c. Any planned leachate collection system, including manholes and pump stations.	
	d. Any planned gas venting or gas collection piping system.	
3.	Construction detail drawings and cross sections including storm water drainage structures, culverts and other surface water control devices. [18 AAC 60.210; 18 AAC 60.225; 18 AAC 60.410; 18 AAC 60.470]	
	a. As applicable, liner construction details including cover and liner anchors, liner penetrations, etc.	
	b. Storm water drainage structures, culverts, and other surface water control devices.	

Section 7. Facility Design (continued)		
4.	Permafrost Design Requirements (if applicable) [18 AAC 60.227]	<u>Identify Attachment</u>
	a. Engineering properties of each earthen layer of ground beneath the facility, including grain size distribution, thaw strain properties, and water content.	
	b. An estimation of maximum thaw depth that is likely to occur beneath the facility and an estimation of the ground deformation that will occur based on thawing.	
	c. Design of engineering features that will be incorporated at the facility to prevent thawing of the ground.	
5.	Design calculations, data and documentation must include the following and supporting calculations. [18 AAC 60.210; 18 AAC 60.227; 18 AAC 60.315; 18 AAC 60.320; 18 AAC 60.410; 18 AAC 60.470]	
	a. Printouts of inputs, assumptions and outputs from any computer model used to support the facility design.	
	b. Information and calculations of the wastes that will be disposed onsite over the usable life of the facility and the maximum design capacity of the facility.	
	c. Information and calculations showing how the facility will be protected from any reasonably anticipated natural event such as aufeis, floods, earthquakes, thawing of unstable permafrost, and the effects of freezing and thawing.	
	d. Information and calculations used to estimate the permeability of the liner and the maximum anticipated depth of leachate over any proposed liner.	
	e. A Quality Assurance Plan for the liner installation.	
	f. If located on permafrost, documentation showing that the permafrost will remain frozen to the greatest extent practical.	
6.	Facility Closure Drawings [18 AAC 60.210; 18 AAC 60.470]	
	a. Conceptual drawings of the facility after closure is completed.	

Section 8. Operations Plan

The operations plan must be a separate document that provides sufficient detail and information that the operator(s) could use it to perform all necessary tasks for day-to-day operation of the facility.

The operations plan is a flexible document that should be reviewed annually and updated as necessary. The following table represents the minimum requirements which must be included. Additional information should be added, as needed, to ensure the facility operates in compliance with all applicable State and Federal and Local Regulations. A copy of the operations plan must be kept at the operating facility.

Please include a reference page and section of the Operations Plan where each item is addressed.

1.	Access control [18 AAC 60.210; 18 AAC 60.220]	<u>page/section</u>
	a. Access to the facility will be controlled using gates, fences, berms or other means of preventing access; hours of operation; signage; and other control measures.	
	b. Access and onsite roads for facility will be kept passable and safe for vehicles during operating months.	
	c. Prohibited activities, such as target practice or off road vehicle use will be prevented.	
	d. Access and onsite roads will be kept passable and safe for vehicles year round.	
2.	Waste acceptance and handling policy [18 AAC 60.210; 18 AAC 60.240; 18 AAC 60.420; 18 AAC 60.470]	
	a. Waste screening procedures to ensure no wastes other than sewage solids are disposed in the facility.	
	b. Required signage placed at the facility entrance.	
	c. Waste processing procedures prior to disposal, including pathogen reduction, vector attraction reduction, and dewatering.	
	d. If the waste cell does not include a geomembrane line, include the appropriate pollutant concentration limits and a statement that sewage solids exceeding those limits will not be accepted at the facility.	
3.	Waste placement plan [18 AAC 60.210; 18 AAC 60.225]	
	a. Waste placement methods (specific details defining the process).	
	b. The planned progression of the working face, including facility development over the life of the facility (diagrams are acceptable).	
	c. How unstable slopes will be avoided.	
4.	Cover plan - Type of cover material(s) that will be used; for each type of cover describe: [18 AAC 60.210; 18 AAC 60.420]	
	a. Where the cover material will be obtained and stored.	
	b. The frequency with which the cover will be applied to control litter, odor, and nuisances.	
	c. The depth of cover that will be applied.	
5.	Surface & Storm Water Control Plan [18 AAC 60.225]	
	a. Describe how run-off from the facility will be controlled and evaluated to ensure that all waste and leachate remains onsite and does not pollute any surface water	
	b. Describe how run on water will be controlled to reduce production of leachate.	
	c. Include any additional related permitting or water quality monitoring requirements.	

Section 8. Operations Plan (continued)		
6.	Litter, vector and nuisance control plan [18 AAC 60.210; 18 AAC 60.230; 18 AAC 60.233; 18 AAC 60.420; AS 46.06.080]	<u>page/section</u>
	a. Describe procedures to ensure wildlife and domestic animals do not endanger the public or facility staff, are not harmed by contact with the waste, and do not become a nuisance.	
	b. Explain how dust, odor, noise, traffic, litter, disease vectors and other effects will be controlled so they do not become a nuisance or hazard outside of the facility boundary.	
7.	Corrective action plan – Describe the actions for: [18 AAC 60.210; 18 AAC 60.815]	
	a. Cleaning up any improper or unauthorized waste disposal	
	b. Repairing any damage to the facility or structures	
	c. Addressing any violations of regulations or permit conditions.	
8.	Operator training [18 AAC 60.235; 18 AAC 60.240]	
	d. Identify any training that will be required for an operator, including on-the-job training.	
	e. Describe how that training will be documented and filed in the operating record.	
9.	Operating record [18 AAC 60.235; 18 AAC 60.470]	
	a. The operating record must include all the elements listed in 18 AAC 60.235 and any other documentation specific to the facility and operation.	
	b. The plan must state where the operating record will be located.	

Section 9. Monitoring Plan		
The monitoring plan must include sufficient detail to allow all monitoring to be completed in full compliance with the applicable regulations and permit conditions.		
1.	Visual monitoring plan [18 AAC 60.210; 18 AAC 60.800(a)]	<u>page/section</u>
	a. Description of the procedures for visual monitoring of the facility.	
	b. Checklist or visual monitoring form including all applicable items in 18 AAC 60.800(a).	
2.	Surface water monitoring plan (if required by DEC) [18 AAC 60.210; 18 AAC 60.810; 18 AAC 60.840]	
	a. Information about topography and surface water flow at the facility.	
	b. A detailed map showing permanent sampling site locations and surface water flow direction.	
	c. Identification of and information about background and compliance sampling sites, including an explanation of why each site was chosen.	
	d. Specific information about sampling frequency and schedules.	
	e. A list of constituents for which samples will be analyzed.	
	f. Detailed monitoring procedures as outlined in 18 AAC 60.810(e).	
	g. A Quality Assurance and Quality Control Plan providing specific details about sampling and testing methodology.	
	h. A statement that monitoring reports will be submitted to ADEC within 90 days of the sampling event or by the date(s) stipulated in the permit.	

Section 9. Monitoring Plan (Continued)		
3.	Groundwater monitoring plan (if required by ADEC) [18 AAC 60.210; 18 AAC 60.217; 18 AAC 60.820-860]	page/section
	a. Information about groundwater hydrology at the facility including depth to groundwater, direction and velocity of flow, with supporting documentation.	
	b. A detailed map showing well locations and groundwater flow direction and rate.	
	c. Well drilling logs, soil boring logs and well installation information for all background and compliance wells.	
	d. An explanation of how each groundwater monitoring well location was selected, including documentation such as geophysical reports, survey data or maps and any other data used to evaluate subsurface conditions at the facility and to determine monitoring well placement.	
	e. Specific information about sampling frequency and schedules.	
	f. A list of constituents for which samples must be analyzed.	
	g. Information about statistical methods that will be used in statistical analysis of the analytical data.	
	h. A Quality Assurance and Quality Control Plan providing specific details about sampling and testing methodology.	
	i. A statement that monitoring reports will be submitted to ADEC within 90 days of the sampling event or by the date(s) stipulated in the permit, and the reports will comply with the Groundwater Monitoring Checklist on the ADEC website.	
4.	Explosive gas monitoring plan (if applicable) [18 AAC 60.210; 18 AAC 60.470] The owner or operator of a sewage solids landfill 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.	
	a. Identification and information about the construction and placement of gas monitoring wells and other monitoring sites.	
	b. A detailed map showing gas wells, other monitoring locations, and all structures on and within one-quarter mile of the facility.	
	c. Specific information about sampling frequency and schedules.	
	d. Information about equipment and procedures used for methane concentration measurements.	
	e. Information about how methane levels will be reported to ADEC.	
	f. A statement that DEC will be notified immediately if levels exceed limits listed in 18 AAC 60.350.	

Section 9. Monitoring Plan (Continued)

5.	Sewage solids monitoring plan [18 AAC 60.020; 18 AAC 60.470]	<u>page/section</u>
	a. If the facility has no liner and leachate collection system, information regarding: <ul style="list-style-type: none"> • The minimum distance from the sewage solids disposal area to the property line of the facility and the applicable maximum allowable concentration limits of arsenic, chromium, and nickel based on the tables in 18 AAC 60.470(c); and • The frequency and procedures for documenting that the concentrations of arsenic, chromium, and nickel in the sewage solids do not exceed the maximum allowable concentrations. 	
	b. A description of the sampling frequency and procedures for conducting TCLP analysis and PCB analysis of the sewage solids.	
	c. A description of how the moisture content of the sewage solids will be monitored to ensure the requirement of 18 AAC 60.470(b) is met.	
	d. If sampling is required to demonstrate compliance with a particular pathogen reduction or vector attraction reduction method, provide a step by step procedure for the sampling.	
6.	Other Required Monitoring [18 AAC 60.215]	
	For any other monitoring required by ADEC at the facility, include a plan that provides specific information on the process, procedures, equipment, and quality assurance procedures required for the monitoring process.	

Section 10. Closure Plan and Cost Estimate

It is understood that the closure plan submitted with the permit application will be conceptual and may change throughout the active life of the facility. If the facility is within 1 year of closure, a detailed closure plan must be submitted and approved by ADEC. The closure plan must include the following information:

1.	Description of the closure process [18 AAC 60.210; 18 AAC 60.245; 18 AAC 60.450-485; 18 AAC 60.470; 18 AAC 60.490]	<u>Section or Attachment</u>
	a. A description of the final cover and appearance of the facility meeting the standards of 18 AAC 60.470(n)-.	
	b. A description of the methods and procedures for final cover installation.	
	c. A timeline or schedule for all activities needed to complete closure.	
	d. A description of the anticipated post closure (future) use of the property.	
	e. A description and map of proposed survey monuments or permanent markers.	
	f. A statement of how ADEC will be notified that the requirements of 18 AAC 60.470(n) have been met.	
	g. A description of how the post-closure care requirements of 18 AAC 60.490 will be met.	
2.	Financial information [18 AAC 60.210; 18 AAC 60.265]	
	Landfill Cost Estimate Worksheets CEW-01 & CEW-02 in Excel is available online at http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/Forms.aspx to assist you in calculating costs. Please note that you need to complete both tabs (CEW-01 and CEW-02), but only sections relevant to closure of your facility. <i>Courtesy of the State of Virginia</i>	
	a. The total present-day equivalent cost estimate for an independent contractor (do not assume the availability of any onsite material or machinery) to close the facility. A quote from a consultant or calculation showing all relevant operations for closure is required.	
	b. The total present-day equivalent cost estimate for an independent contractor to perform post-closure care of the facility.	
	c. Demonstration of the mechanism of financial responsibility to cover the cost of closing the facility and post-closure care. Proof of financial responsibility may be demonstrated by self-insurance, insurance, or other guarantee approved by ADEC.	

Section 11. Waiver Requests and Justification

18 AAC 60.900 allows ADEC to grant an exemption from any regulation not required by federal law. The applicant will be billed separately for time spent reviewing waiver requests at the rate in 18 AAC 60.700(e).

1.	Waiver requests must include the specific regulation for which you are requesting a waiver, and for each requested waiver, a detailed justification that meets the criteria of 18 AAC 60.900 by demonstrating that: [18 AAC 60.210]
	a. 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; or
	b. 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 that compliance.

Additional information

Attach any additional information necessary to accurately reflect the location, construction, and operations of the facility.