



# Matanuska-Susitna Borough

Public Works Department

Solid Waste Division

350 East Dahlia Avenue – Palmer, Alaska 99645-6488

Phone: (907) 861-7609



January 20, 2025

Annemieke Powers  
Environmental Program Specialist III  
Alaska Department of Environmental Conservation  
555 Cordova Street  
Anchorage, Alaska, 99501

RE: Matanuska Susitna Borough Central Landfill (SW1A007-26) - Permit Modification Application

Dear Ms. Powers,

Matanuska-Susitna Borough (MSB) and Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) have prepared the attached Permit Modification Application (Modification) to reflect the construction of an expansion to Cell 4 at the MSB Central Landfill (Landfill). MSB requests review and comment by the Alaska Department of Environmental (ADEC), with subsequent public notice. Upon ADEC approval of the Modification, MSB desires to begin using the Cell 4 expansion for municipal solid waste (MSW) disposal pursuant to the permit.

The Cell 4 expansion included construction of a new 2.95-acre lined area immediately northeast of Cell 4 and a 1.2-acre lined area over the existing Cell 2A “piggyback” area. The expansion will add approximately 354,338 cubic yards of airspace. This will provide over three years of additional airspace and square off the Cell 4 boundary for more efficient operation. Construction of the Cell 4 expansion began in August 2025 and was determined to be substantially complete (i.e., ready to receive MSW pending ADEC approval) on October 29, 2025. Pipe installation to support landfill gas collection in the expansion area remains to be completed.

This Modification incorporates several updates from the last permit issuance to support the expansion. The following key changes are included as Exhibits:

- Cell 4 Expansion Design Response Letter to ADEC addressing comments on the Cell 4 Expansion. This packet includes specifications and the Issued for Bid (IFB) plan set.
- The Central Landfill (CLF) Operating plan with an updated Cell 4 and Cell 4 Expansion MSW sequencing plan (Section 9.9-9.10 and Figure 9-I).
- Updated Closure and Post-Closure cost estimates with financial assurance forms from 2021 to 2025 which account for inflation, increase in airspace, and added final cover.



# Matanuska-Susitna Borough

Public Works Department

Solid Waste Division

350 East Dahlia Avenue – Palmer, Alaska 99645-6488

Phone: (907) 861-7609



- MSW Remaining Airspace calculation to reflect the addition of Cell 4 Expansion airspace.
- The Cell 4 Expansion Construction Quality Assurance Documentation Report with As-Builts, showing construction progress and as observed information.

In summary, in accordance with the Permit Application form:

- This application is for a permit modification for MSB's Central Landfill, a Class I MSW Landfill (MSWLF) operating under permit SW1A007-26.
- The information presented herein provides evidence that the Cell 4 expansion meets the requirements for a Class I MSWLF.
- A general description of topography, geology, climate, surface hydrology, and groundwater hydrology at the facility is provided in Exhibit 7.
- MSB is aware of all applicable local ordinances and zoning requirements. No additional permits or authorizations are required for this expansion.
- The applicant has signed this cover letter.
- The applicant has signed the certification below indicating that the application form and all information and exhibits to this cover letter and application are true, accurate, and complete.

Should you have any questions or require additional information, please feel free to contact me at (907) 861-7606 or [jeff.smith@matsugov.us](mailto:jeff.smith@matsugov.us).

Sincerely,

Matanuska-Susitna Borough

**Jeff Smith**  
Digitally signed by Jeff Smith  
Date: 2026.01.19 12:48:17 -09'00'

Jeff Smith  
Solid Waste Division Manager

Cc: Fred Doran, PE, Burns & McDonnell  
Terry Berger, MSB  
Ed Lohr, MSB



# Matanuska-Susitna Borough

Public Works Department

Solid Waste Division

350 East Dahlia Avenue – Palmer, Alaska 99645-6488

Phone: (907) 861-7609



## List of Exhibits

- Exhibit 1 – Cell 4 Expansion Design Response Letter to ADEC with Issued for Bid Construction Plans and Specifications and Subsequent ADEC Approval Letter
- Exhibit 2 – CLF Operating Plan
- Exhibit 3 – Closure and Post-Closure Cost Analysis
- Exhibit 4 – Financial Assurance Form – FY 21-FY 25
- Exhibit 5 – Remaining Airspace
- Exhibit 6 – Cell 4 Expansion Construction Quality Assurance Documentation Report and As-Built Certification and Engineer of Record Statement of Compliance
- Exhibit 7 – Topography, Geology, Climate, Surface Hydrology, and Groundwater Hydrology Description
- Exhibit 8 – Professional Engineer Certification for Permit Modification (SW1A007-26)
- Exhibit 9 – Wetland Determination
- Exhibit 10 – HELP Model

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:  Jeff Smith	Title:  Solid Waste Division Manager
Signature: Jeff Smith <small>Digitally signed by Jeff Smith Date: 2026.01.19 12:48:39 -09'00'</small>	Date:  January 20, 2026



# Class I MSWLF Permit Application

Alaska Department of Environmental Conservation  
Solid Waste Program

## ADEC Office Only:

Facility Name: \_\_\_\_\_

Authorization #: \_\_\_\_\_

### Instructions:

This application is for a new permit or permit renewal for a Class I Municipal Solid Waste Landfill (MSWLF).

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 application must be stamped and signed by a registered engineer, in accordance with 18 AAC 60.210(c). See Exhibit 8 pg 1321 for Professional Engineer certification**

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: \_\_\_\_\_

City: \_\_\_\_\_

Zip: \_\_\_\_\_

Legal Property Description: \_\_\_\_\_

Section: \_\_\_\_\_

Township: \_\_\_\_\_

Range: \_\_\_\_\_

Meridian: \_\_\_\_\_

General Property Description: \_\_\_\_\_

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Landowner: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

**N/A used throughout this Permit Modification Application means that item does not apply to Cell 4 expansion design, operation, monitoring, financial assurance, or closure.**

**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.

1. 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.
2. You will be billed separately for time spent reviewing waiver requests.

This application is for a:

New Permit

Permit Renewal **Modification**

#### Section 4. Cover Letter and Certifications

A cover letter must be provided with the application and must include the following information and signature.

- |    |  |
|----|--|
| 1. | A statement indicating you wish to obtain a permit for a Class I MSWLF.  |
| 2. | Evidence showing that the proposed facility meets the requirements for a Class I MSWLF.  |
| 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 necessary permits or authorizations.   |
| 5. | The applicant must sign the cover letter.  |
| 6. | The applicant must submit the following signed statement, which may be added exactly as shown in the box below to the cover letter, or 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: **Jeff Smith**  
Digitally signed by Jeff Smith  
Date: 2026.01.19  
12:48:55 -09'00'

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 [18 AAC 60.210]**
**1. List the approximate quantities of waste you expect to receive at the facility each year:**

<u>Quantity</u>		<u>Waste</u>
Tons	OR Cubic yds.	
N/A		Municipal Solid Waste (MSW)
N/A		Ash from MSW
N/A		Construction and Demolition Waste
N/A		Non-Regulated Asbestos-Containing Material (non-RACM)
N/A		Regulated Asbestos-Containing Material (RACM)
N/A		Sewage Solids or Biosolids
N/A		Treated Medical Waste
N/A		Polluted Soil
N/A		Animal Carcasses
N/A		Commercial Fish Waste
N/A		Commercial Wood Waste
N/A		Other Ash
		Other:
		Other:
		Other:
		<b>TOTAL</b>

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

Baling	Separation/Segregation
Shredding	Composting
Salvage/Reuse	Dewatering
Incineration: Incinerator Model:	ADEC AQ Permit #
Other:	Other:

Section 6. Location Information		Please identify the PDF page that addressed each requested item	
1.	<b>Property Ownership and Location Information</b> [18 AAC 60.210]		PDF page
	a. Attach a copy of the deed or another legal document that identifies the landowner(s) of the facility property.		
	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 60.395.		
2.	<b>Surface Water Information</b> [18 AAC 60.210; 18 AAC 60.225; 18 AAC 60.315]		
	a. Distance to nearest surface water body:		feet N/A
	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 facility location 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.	<b>Groundwater Information</b> [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.		
	b. Annual precipitation:		inches N/A
	c. Source used to determine annual precipitation:		
4.	<b>Permafrost Information</b> (if applicable) [18 AAC 60.210; 18 AAC 60.227]		
	a. If the facility is located on permafrost, provide details on why there is not 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.).		
5.	<b>Airport Safety</b> [18 AAC 60.210; 18 AAC 60.305; FAA AC 150/5200-33B]		
	a. If the facility is located less than 10,000 feet from any airport used by turbojet aircraft, or less than 5,000 feet from any airport used only by piston-type aircraft, attach a demonstration that the facility is designed and operated so it does not pose a bird hazard to aircraft.		



**Section 6. Location Information** (continued)**6. 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, nearest airport, wetland and surface water locations, etc.

[18 AAC 60.040; 18 AAC 60.210; 18 AAC 60.227; 18 AAC 60.305; 18 AAC 60.310; 18 AAC 60.315; 18 AAC 60.320]

PDF page

a.	Location of the facility property boundaries.	
b.	Location and flow direction of all surface water bodies, streams, and containment or diversion structures, within 500 feet of the facility property boundaries.	
c.	Location of all drinking water sources within one-half mile of the facility property boundary. There should be no drinking water sources within 500 feet of the facility property boundary.	
d.	Location of the boundary of any wetlands within 500 feet of the facility property boundary.	
e.	Location of the known or inferred boundaries of permafrost or discontinuous permafrost within 500 feet of the facility property boundaries.	
f.	Location of the boundary of any 100-year floodplain in the area.	
g.	Location of any documented earthquake faults or unstable areas within 200 feet of the facility property boundary.	
h.	Distance and direction to the closest portion of an airport runway if it is within 10,000 feet of the facility property boundary.	

**Section 7. Facility Design** **Relative to Cell 4 Expansion**

A complete set of the most recent design drawings and maps that include the following information must be submitted. Please ensure that the documentation represents current conditions for the entire facility.

**1. Facility map(s) which show site conditions, including:**

[18 AAC 60.210; 18 AAC 60.220; 18 AAC 60.233; 18 AAC 60.330; 18 AAC 60.450]

PDF page

a.	All previous, existing and planned disposal areas. The drawings should demonstrate all waste will remain at least 50 feet from the facility property boundary.	
b.	Fences, gates, berms and other access control devices.	
c.	Access roads to and within the facility.	
d.	Storage area(s) for equipment, cover material, etc.	

**2. Plan view drawings** with contour lines and cross section drawings that show: [18 AAC 60.210]

a.	All planned excavations before facility construction	743
b.	All roads, ditches, trenches and berms associated with the facility.	
c.	Any planned liquid or leachate collection piping system, including manholes, sumps, and pump stations.	
d.	Any planned gas venting or gas collection piping system.	747, 749-753, 923, 925, 927

**3. Construction detail drawings and cross sections** that show:

[18 AAC 60.210; 18 AAC 60.225; 18 AAC 60.330]

a.	Any liner construction details, including liner anchors, liner penetrations, etc.	751-752, 923-925
b.	Storm water drainage structures, culverts and other surface water control devices.	922-923

Section 7. Facility Design (continued)		
4.	Permafrost Design Requirements (if applicable) [18 AAC 60.227]	PDF page
	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.	<b>Design calculations, data and documentation</b> must include the following with supporting calculations. [18 AAC 60.210; 18 AAC 60.227; 18 AAC 60.320; 18 AAC 60.330]	
	a. Printouts of inputs, assumptions and outputs from any computer model used to support the facility design.	
	b. Information and calculations of the maximum inventory of wastes that will be disposed onsite over the usable life of the facility, including the maximum design capacity of the facility.	
	c. An explanation (including calculations) of the expected usable life of the facility.	
	d. 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.	
	e. If located on permafrost, documentation showing that the permafrost will remain frozen to the greatest extent practical, including relevant modeling and literature or case studies.	
	f. If located in an unstable area, attach information and calculations for engineering measures to ensure the integrity of the structural components will be protected [18 AAC 60.320(b)].	
	g. If located in a seismic impact zone, attach documentation showing how the requirements of 18 AAC 60.320(a)(1) and (2) will be met.	
	h. For a new facility or lateral expansion of an existing facility, provide data and calculations showing how the requirements of 18 AAC 60.330(b)(1) and (2) will be met.	
	i. Information and calculations used to estimate the permeability and maximum anticipated depth of leachate over any proposed liner	
	j. A Quality Assurance Plan for any liner installation.	
6.	<b>Facility Closure Drawings</b> [18 AAC 60.210; 18 AAC 60.395]	
	a. <b>Conceptual drawings</b> of the facility after closure is completed.	

\* The soils and geology are not considered unstable in the expansion area because the cell was constructed in an area where native soil was excavated to establish the 3:1 base grade slope.

## 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.	<b>Access control</b> [18 AAC 60.210; 18 AAC 60.220]	<u>PDF page</u>
	a. Access to the facility will be controlled, including 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. Salvaging practices, if allowed, will not interfere with facility operations, create a safety hazard, or cause pollution.	
2.	<b>Waste acceptance and handling policy</b> [18 AAC 60.210; 18 AAC 60.240; 18 AAC 60.360; 18 AAC 60.365]	
	a. Waste screening procedures to ensure that no prohibited wastes are accepted at the facility.	
	b. Any signage placed at the facility entrance.	
	c. Details of any waste processing procedures that will be applied prior to disposal.	
3.	<b>Waste placement plan</b> [18 AAC 60.210; 18 AAC 60.225]	
	a. Details of waste placement, consolidation, and compaction methods.	9.9, pg 987-988
	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.	Sec 9.11, pg 987
4.	<b>Daily cover plan</b> - Type of cover material(s) that will be used; for each type of cover describe: [18 AAC 60.210; 18 AAC 60.340]	
	a. Where the cover material will be obtained and stored.	
	b. The frequency with which the cover will be applied.	
	c. The depth of cover that will be applied.	
5.	<b>Non-RACM waste placement plan</b> [18 AAC 60.210; 18 AAC 60.450]	
	a. Procedures for identifying any RACM or non-RACM in the waste, including any required paperwork (building survey, sampling report).	
	b. Inspection of non-RACM material prior to disposal to ensure it has not been crushed or crumbled to cause possible release of fibers, rendering it RACM.	
	c. Details of waste handling, placement, and cover procedures and equipment to ensure non-RACM will not become friable, including restricting compaction until the non-RACM has been adequately covered.	
	d. Placement, frequency and type of cover material. NOTE: Non-RACM must be covered within 24 hours of placement.	

Section 8. Operations Plan (continued)		
6.	<b>RACM Cell Operations</b> (if applicable) [18 AAC 60.210; 18 AAC 60.450]	<u>PDF page</u>
	a. Waste screening procedures to ensure no prohibited or unacceptable wastes are disposed in the RACM cell.	
	b. Required signage placed at the cell entrance and borders.	
	c. Waste inspection procedures to ensure: <ul style="list-style-type: none"> <li>• Proper containment in leak-proof bags,</li> <li>• Bags are properly labeled, and</li> <li>• All bags are accompanied by complete and accurate shipping records</li> </ul>	
	d. Details of handling, placement, and cover procedures and equipment that prevent breakage of bags or release of asbestos fibers.	
	e. Daily cover including the type of cover material(s) that will be used and describe: <ul style="list-style-type: none"> <li>• Where the cover material will be obtained and stored</li> <li>• Cover will be applied by the end of the working day or more frequently</li> <li>• The depth of cover that will be applied (minimum of 6 inches).</li> </ul>	
	f. Instructions for processing of waste manifests.	
7.	<b>Surface &amp; Storm Water Control Plan</b> [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.	18
	c. Include any additional related permitting or water quality monitoring requirements.	
8.	<b>Litter, vector and nuisance control plan</b> [18 AAC 60.210; 18 AAC 60.230; 18 AAC 60.233; AS 46.06.080]	
	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, 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.	
9.	<b>Corrective action plan</b> – Describe the actions for: [18 AAC 60.210; 18 AAC 60.375; 18 AAC 60.8100]	
	a. Cleaning up any improper or unauthorized waste.	
	b. Repairing any damage to the facility or structures.	
	c. Addressing any violations of regulations or permit conditions.	
	d. Responding to combustion or a fire within the waste.	
10.	<b>Operator training</b> [18 AAC 60.235; 18 AAC 60.240; 18 AAC 60.335]	
	a. Identify any training that will be required for an operator, including on-the-job training.	
	b. Describe how that training will be documented and filed in the operating record.	
11.	<b>Operating record</b> [18 AAC 60.235, 18 AAC 60.450]	
	a. The operating record includes all the elements listed in 18 AAC 60.235, as well as 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. It must include the following information and a statement for each monitoring type that explains why the monitoring is being performed.

1.	<b>Visual monitoring plan</b> [18 AAC 60.210; 18 AAC 60.800]	<b>PDF page</b> _____
	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.	<b>Surface water monitoring plan</b> (if required by ADEC) [18 AAC 60.210; 18 AAC 60.810]	
	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.	
3.	<b>Groundwater monitoring plan</b> [18 AAC 60.210; 18 AAC 60.217; 18 AAC 60.820-860]	
	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.	

**Section 9. Monitoring Plan (continued)**

4.	<b>Explosive gas monitoring plan</b> [18 AAC 60.210; 18 AAC 60.805]	<u>PDF page</u>
	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 ADEC will be notified immediately if levels exceed limits listed in 18 AAC 60.350.	
5.	<b>Other Required Monitoring</b> [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.	<b>Description of the closure process</b> [18 AAC 60.210; 18 AAC 60.245; 18 AAC 60.395; 18 AAC 60.397]	<u>PDF page</u>
	a. A description of the final cover and appearance of the facility meeting the standards of 18 AAC 60.395.	
	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 60.395 have been met.	
	g. A description of how the post-closure care requirements of 18 AAC 60.397 will be met.	

**Section 10. Closure Plan and Cost Estimate (Continued)**

2. **Financial information** [18 AAC 60.210; 18 AAC 60.265; 18 AAC 60.398]

PDF page

**Landfill Cost Estimate Worksheets CEW-01 & CEW-02** in Excel is available online at <https://www.deq.virginia.gov/home/showpublisheddocument/2525> 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. *Courtesy of the State of Virginia*

- |    |  |  |
|----|--|--|
| 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 which meets the requirements of 40 CFR 258.74.  |  |

**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 requirements of 40 CFR 258, as they apply to a Class I MSWLF may not be waived. The applicant will be billed separately for time spent reviewing waiver requests at the rate identified in 18 AAC 60.700(e).

- |    |  |
|----|--|
| 1. | <b>Waiver requests must</b> 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.