



**DIVISION OF MATERIALS AND WASTE MANAGEMENT
Municipal, Industrial, and Residual Solid Waste Landfills**

The information requested by this attachment is not required by rule, however it is useful to permit reviewers and the general public.

Multimedia Information, check all that apply:

Division of Surface Water

Current NPDES permit

Permit Number _____

Date issued _____

Leachate discharge to public sewer	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
On-site leachate treatment	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
On-site sanitary treatment	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
Waste solidification	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
Sedimentation basin	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
Holding tank, impoundment	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>
Stream relocation	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
Spillway relocation	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
New outfall	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>
Headwater removal	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>

401 Certification

Required

No

Yes

Submitted

No

Yes

Date _____

Issued

No

Yes

Date _____

404 Permit

Required

No

Yes

Submitted

No

Yes

Date _____

Issued

No

Yes

Date _____

Isolated wetland permit

Required

No

Yes

Date _____

Submitted

No

Yes

Date _____

Issued

No

Yes

Date _____

Initial

Revised _____ date

Division of Air Pollution Control

Current DAPC permit

Permit Number _____

Date issued _____

New/Revised DAPC permit application

Required	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	
Submitted	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	Date _____
Issued	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	Date _____
Active gas extraction	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>	
Flare	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>	
Rail spur	Current	<input type="checkbox"/>	Proposed	<input type="checkbox"/>	
Additional storage piles	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	
Additional haul roads	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	
Waste relocation	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	
Type of daily cover	_____				
Dust suppressant used	_____				

Other Permits

Permit	Local, State, or Federal Office	Date applied for

Other Licenses

License	Local, State, or Federal Office	Date applied for

Other Plan Approvals

Plan	Local, State, or Federal Office	Date applied for

Other Authorizations

Authorization	Local, State, or Federal Office	Date applied for

Initial

Revised _____ date

Additional Information

1. Please indicate the reason for this application (check all that apply).

<input type="checkbox"/>	New facility	<input type="checkbox"/>	Design modification
<input type="checkbox"/>	Lateral expansion	<input type="checkbox"/>	Call-In, ORC 3734.05(A)(5)
<input type="checkbox"/>	Vertical expansion	<input type="checkbox"/>	Operational modification
<input type="checkbox"/>	AMDWR change	<input type="checkbox"/>	Call-In, ORC 3734.05(A)(3) or (4)

2. If the facility is an industrial or manufacturing waste (IMW) landfill, please indicate the proposed classification of the landfill.

Industrial Residual

3. Please identify the licensing authority (Ohio EPA or local health department, if approved).

Licensing authority: _____

4. Please state the name of the uppermost aquifer system below the limits of waste and the minimum distance between the uppermost aquifer system and the bottom of the liner system. (If there is more than one, then list all of them.)

Name of aquifer system	Distance from liner to aquifer system

5. Please state the anticipated date and the location of the applicants meeting required by Ohio Revised Code 3734.05.

Location: _____

Anticipated date: _____

Applicant’s Meeting: Requirements and Ohio EPA Recommendations

The applicant is required to hold a public meeting no later than 45 days after submitting certain applications. See ORC 3734.05(A)(2)(d) for public meeting requirements.

At least 30 days before the public meeting, the applicant must publish notice of the meeting in all newspapers of general circulation published in the county. For information on newspapers of general circulation, contact Ohio EPA’s Public Interest Center at (614) 644-2160.

The Agency recommends that the applicant contact each newspaper to ensure the legal notice is published in all newspapers in time to comply with the required deadlines.

No later than 5 days after the notice is published, the applicant must send a copy of the notice(s), with the date(s) published, by certified mail to the director of Ohio EPA.

The notice must also be sent by certified mail to the legislative authority and the chief executive officer of each municipal corporation, and the legislative authority of each township and each county in which the facility is or is proposed to be located.

No later than 30 days after the public meeting, the applicant must provide the director of Ohio EPA with a copy of the full meeting transcript; copies of any exhibits, displays or other materials presented at the meeting; and the original copy of any written comments submitted at the meeting.

The meeting shall include:

- * description of the permit application process by an Ohio EPA employee,
- * outline of the proposal in the permit application by the applicant,
- * response by the applicant to comments and questions raised during the meeting,
- * an opportunity for citizens to submit written or oral comments regarding the application.

In addition, the Agency recommends that the applicant:

- * arrange for any necessary audio/visual equipment,
- * provide DSIWM’s fact sheet regarding the permit to install process,
- * prepare and provide fact sheets about the facility,
- * provide registration sheets for a record of attendance and mailing list,
- * establish an information repository in a library near the facility.

Applicants are responsible for all costs of their public meeting except for Ohio EPA personnel costs.

6. Please list all variances and exemptions, pursuant to OAC 3745-27-03, requested in the permit application:

Variance/Exemption: _____

Variance/Exemption: _____

Variance/Exemption: _____

Variance/Exemption: _____

7. Please list all alternatives, where allowed by rule, requested in the permit application:

Alternative: _____

Alternative: _____

Initial

Revised _____

date

Alternative: _____

Alternative: _____

8. Please state the acreage of the property where the facility will be located, and how much of this property is owned, leased, and not currently owned or leased, by the applicant.

Total facility area (acres)

Total area owned (acres)

Total area leased (acres)

Total other (acres) Explain: _____

9. Please state the acreage of the facility within the limits of solid waste placement, and how many acres were previously approved, currently filled, and proposed to be filled as part of this application.

Total area within the limits of waste placement (acres)

Area previously approved (acres)

Area currently filled (acres)

New area added (or subtracted) by this permit (acres)

10. Please state the volume of the landfill in cubic yards, and how much of this volume is previously approved, currently filled, and proposed as part of this application.

Total volume (cubic yards)

Volume previously approved (cubic yards)

Volume currently filled (cubic yards)

New volume proposed by this permit (cubic yards) This figure should be the same used to calculate the permit fee as per ORC 3745.11(Q)

11. Please state the authorized maximum daily waste receipt (AMDWR) requested for this facility and the anticipated daily waste receipt.

AMDWR (tons)

Anticipated daily waste receipt (tons)

Current AMDWR (tons), if any

12. If the facility is a proposed new site, expansion, or AMDWR change, please state the life expectancy of the facility based on the total volume using the AMDWR and anticipated daily waste receipt if this application is approved.

Life expectancy using the AMDWR (years)

Life expectancy using the anticipated daily waste receipt (years)

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

Closure Cost Estimate.

	Total closure cost estimate
	Worst case acreage

Description of when worst case occurs: _____

CY = Cubic Yards SF = Square Foot LF = Linear Foot EA = Each LS = Lump Sum

I Ground Water Monitoring Wells				
	Item Description	Quantity	Unit Cost	Item Cost
a	Ground water monitoring well installation and development (EA)		\$	\$
b	Ground water monitoring well repair and replacement (EA)		\$	\$
c			\$	\$
<i>Subtotal for ground water monitoring wells</i>				\$

II Fill and Grade (for premature closure)				
	Item Description	Quantity	Unit Cost	Item Cost
a	Mobilization/Demobilization (LS)			\$
b	Soil (CY**)		\$	\$
c	Excavation (CY)		\$	\$
d	Placement/Spreading (CY)		\$	\$
e	Compaction (CY)		\$	\$
f	Transportation cost of materials (CY) (transport radius: _____)		\$	\$
g	Materials testing (LS) (field and lab)			\$
h	Surveying (LS)			\$
i	QA/QC (LS)			\$
j			\$	\$
<i>Subtotal for slope and fill</i>				\$

** Note that the actual surface area may be significantly larger than the plan area depicted in the authorizing document. In addition, the volume of soil, once compacted, may be different than the volume excavated.

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

III Cap System Components				
	Item Description**	Quantity	Unit Cost	Item Cost
a	Gas collection layer (CY or SF)		\$	\$
b	Sub-base layer (CY)		\$	\$
c	Engineered barrier layer (CY)		\$	\$
d	Geosynthetic clay liner (SF)		\$	\$
e	Flexible membrane liner (FML) (SF)		\$	\$
f	Drainage layer (CY or SF)		\$	\$
g	Freeze thaw protection layer (CY)		\$	\$
h	Vegetative layer (CY)		\$	\$
i	Surface water control system (on the cap) (LS)			\$
j	Mobilization/Demobilization for earthwork (LS)			\$
k	Mobilization/Demobilization for geosynthetics (LS)			\$
l	Temporary erosion control: Silt fences (LF) Straw bales (EA) Other erosion Control		\$ \$ \$	\$ \$ \$
m			\$	\$
<i>Subtotal cap system components</i>				\$

** Note that the actual surface area may be significantly larger than the plan area depicted in the authorizing document. In addition, the volume of soil once compacted, may be different than the volume excavated.

IV Permanent Surface Water Structures (outside limits of waste placement)		
	Item Description	Item Cost
a	Surface water control structures	\$
b	Surface water conveyance structures	\$
c	Mobilization/Demobilization	\$
d		\$
<i>Subtotal permanent surface water structures</i>		\$

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

V Explosive Gas Extraction and/or Control System				
	Item Description	Quantity	Unit Cost	Item Cost
a	Extraction well installation, repair, and replacement (EA)		\$	\$
b	Collection system installation, repair, and replacement (LF)		\$	\$
c	Flare system installation, repair, and replacement (EA)		\$	\$
d	Establishment of utilities and supplemental fuel system (LS)			\$
e	Special controls and conveyance structures		\$	\$
f	Mobilization/Demobilization (LS)			\$
g	QA/QC & Certification (LS)			\$
h			\$	\$
<i>Subtotal explosive gas extraction and/or control system</i>				\$

VI Explosive Gas Monitoring System		
	Item Description	Item Cost
a	Gas monitoring probe installation, repair, and replacement	\$
b	Alarm installation and replacement	\$
c		\$
<i>Subtotal explosive gas monitoring system</i>		\$

VII Access Control				
	Item Description	Quantity	Unit Cost	Item Cost
a	Fencing (LF)		\$	\$
b	Gate (EA)		\$	\$
c	Sign (EA)		\$	\$
d			\$	\$
<i>Subtotal access control</i>				\$

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

VIII	Engineering (QA/QC)			
	Item Description	Quantity	Unit Cost	Item Cost
a	Revisions to closure plan report (LS)			\$
b	Certified engineering designs and calculations for construction (LS)			\$
c	Surveying (Acre)		\$	\$
d	Benchmark installation (EA)		\$	\$
e	Benchmark survey (EA)		\$	\$
f			\$	\$
<i>Subtotal engineering</i>				\$

IX	Other Costs List all other costs not included in other sections			
	Item Description	Quantity	Unit Cost	Item Cost
a	Environmental monitoring (LS)			\$
b	Utilities (LS)			\$
c	Restoration of borrow areas (Acre)		\$	\$
d			\$	\$
<i>Subtotal site specific costs</i>				\$

Initial

Revised _____ date

Initial

Revised _____
date

Section IV – Cost Estimates

Post-Closure Care Cost Estimate

Total Post-Closure Cost Estimate

CY = Cubic Yards SF = Square Foot LF = Linear Foot EA = Each LS = Lump Sum

I Inspection and Reporting				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Ground water monitoring report (EA)		\$	\$
b	Explosive gas monitoring quarterly report (EA)	4	\$	\$
c	Explosive gas monitoring semi-annual report (EA)	2	\$	\$
d	Inspection (EA)	4	\$	\$
e	Inspection summary (EA)	4	\$	\$
f	Annual report (EA)	1	\$	\$
g	Other reporting (orders, authorizing documents)(EA)		\$	\$
h			\$	\$
Total Annual Cost				\$
Total Annual Cost multiplied by years of post-closure care				\$
	Item Description	Item Cost		
i	Post-Closure Certification	\$		
<i>Subtotal for inspection and reporting</i>				\$

II Ground Water Monitoring		
	Item Description	Annual Cost
a	Trace metals	\$
b	Volatile and semivolatile organic compounds	\$
c	General ground water quality parameters	\$
d	Alternate parameter list (site specific)	\$
e	Assessment monitoring parameters	\$
f	Background sampling (for new wells only)	\$
g	Collection and transportation of samples	\$
h		\$
<i>Subtotal for ground water monitoring (total annual cost multiplied by years of post-closure care)</i>		\$

Initial

Revised _____ date

III Explosive Gas Migration Monitoring				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Quarterly (years 1-5) (per sample event)	4	\$	\$
b	Semi-Annual (years 6-30) (per sample event)	2	\$	\$
c	Alternate frequency (per sample event)		\$	\$
d			\$	\$
Total Annual Cost				\$
<i>Subtotal for gas monitoring (for all years of post-closure care)</i>				\$

IV Leachate Monitoring		
	Item Description	Annual Cost
a	Annual grab sample	\$
b	Cost of testing for special constituents	\$
c	Collection and transportation of samples	\$
d		\$
<i>Subtotal for Leachate monitoring (total annual cost multiplied by years of post-closure care)</i>		\$

V Surface Water Monitoring		
	Item Description	Annual Cost
a	Sampling per NPDES permit, closure plan, or other authorizing document	\$
b	Collection and transportation of samples	\$
c		\$
<i>Subtotal surface water monitoring (total annual cost multiplied by years of post-closure care)</i>		\$

Initial

Revised _____ date

VI Operation and Maintenance of Leachate Collection and Treatment System				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection & flushing of collection pipes (LF)		\$	\$
b	Inspection & cleaning of sumps and traps (EA)		\$	\$
c	Replacement of sump pumps, piping, and instrumentation (EA)		\$	\$
d	Inspection & cleaning of lift station(s), manhole(s), and conveyance structures (EA)		\$	\$
e	Replacement of conveyance structure pumps, piping, and instrumentation (EA)		\$	\$
f	Tanks (spill containment repair, sealing, tank cleaning, and inspection) (EA)		\$	\$
g	Transportation cost of sludge removal (CY) transportation radius: _____		\$	\$
h	Disposal cost for sludge removal (CY) disposal site: _____		\$	\$
i	Characterization cost of sludge removal (CY)		\$	\$
j	Off-site disposal of leachate (LS)			\$
k	On-site treatment and/or pretreatment of leachate (LS)			\$
l			\$	\$
<i>Subtotal operation and maintenance of leachate collection and treatment systems (total annual cost multiplied by years of post-closure care)</i>				\$

VII Operation and Maintenance of Ground Water Monitoring System			
	Item Description	Unit Cost	Annual Average Cost
a	Routine maintenance (inspection, cleaning, repairing) (LS)		\$
b	Repair & replacement of monitoring wells (LS)		\$
c		\$	\$
Total Annual Cost			\$
Total Annual Cost multiplied by years of post-closure care			\$
	Item Description	Unit Cost	Item Cost
d	Abandonment at end of post-closure care period (number of wells: _____)	\$	\$
<i>Subtotal for operations and maintenance of ground water monitoring system</i>			\$

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

VIII Operation and Maintenance of Explosive Gas Extraction and/or Control System			
	Item Description	Unit Cost	Annual Average Cost
a	Extraction well repair & replacement (LS)		\$
b	Collection system repair & replacement (LS)		\$
c	Flare system repair & replacement (LS)		\$
d	Air emissions monitoring [NSPS and OAC 3745-76] (number of years to be monitored: _____)	\$	\$
e	Special control & conveyance structures (LS)		\$
f		\$	\$
Total Annual Cost			\$
Total Annual Cost multiplied by years of post-closure care			\$
	Item Description	Unit Cost	Item Cost
g	Well abandonment at end of post-closure care period (number of wells: _____)	\$	\$
h	System abandonment at end of post-closure care period (LS)		\$
<i>Subtotal for operation & maintenance of explosive gas extraction and/or control system</i>			\$

IX Operation and Maintenance of Explosive Gas Monitoring System			
	Item Description	Unit Cost	Annual Average Cost
a	Inspection, repair & replacement of monitoring probes (LS)		\$
b	Inspection, repair & replacement of monitoring alarms (LS)		\$
c			\$
Total Annual Cost			\$
Total Annual Cost multiplied by years of post-closure care			\$
	Item Description	Unit Cost	Item Cost
d	Abandonment at end of post-closure care period (number of probes: _____)	\$	\$
<i>Subtotal for operations and maintenance of gas monitoring system</i>			\$

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

X Utilities for Operation					
	Item Description	Supplier	Annual Quantity	Unit Cost	Annual Cost
a	Electricity			\$	\$
b	Natural Gas			\$	\$
c	Propane			\$	\$
d				\$	\$
<i>Subtotal for utilities for operation (total annual cost multiplied by years of post-closure care)</i>					\$

XI Maintenance of Cover System				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Mowing, fertilizing, removal of trees, mulching, and seeding (EA)		\$	\$
b	Cap repair (leachate outbreak repair, erosion rill repair, differential settlement repair)		\$	\$
c	Maintain grade & erosion repair <small>Minimum based on annual erosion rate</small>		\$	\$
d	Rodent control (Acre)		\$	\$
e			\$	\$
<i>Subtotal for maintenance of cover system (total annual cost multiplied by years of post-closure care)</i>				\$

XII Operation and Maintenance of Surface Water Management System				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection, cleaning & repair of ditches (LF)		\$	
b	Inspection, cleaning & repair of conveyance structure (EA)		\$	
c	Inspection, cleaning & repair of sedimentation pond (EA)		\$	
d	Inspection, cleaning & repair of spillway/outlet (EA)		\$	
e			\$	
<i>Subtotal for operation and maintenance of surface water management system (total annual cost multiplied by years of post-closure care)</i>				\$

Initial

Revised _____ date

Section IV – Cost Estimates

Attachment A1

XIII	Operation and Maintenance of Access Control Structures			
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection, repair & replacement of fence (LF)		\$	\$
b	Inspection, repair & replacement of gate (EA)		\$	\$
c	Inspection, repair & replacement of sign (EA)		\$	\$
d	Maintenance of roadways (LF)		\$	\$
e			\$	\$
<i>Subtotal for operation and maintenance of access control structures (total annual cost multiplied by years of post-closure care)</i>				\$

Initial

Revised _____ date