



**DIVISION OF SOLID AND INFECTIOUS
WASTE MANAGEMENT**

Contiguous and Noncontiguous Scrap Tire Monocells

For a new municipal or industrial waste landfill with a monocell, fill out Attachment A1 and A3b sections IV and V.

For a modification to an existing landfill to modify a monocell or add a new monocell, fill out Attachment A3b.

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	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	<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 _____
404 Permit					
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 _____
Isolated Wetland Permit					
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 _____

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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 Submitted	Date Issued

Other Licenses

License	Local, State, or Federal Office	Date Submitted	Date Issued

Other Plan Approvals

Plan	Local, State, or Federal Office	Date Submitted	Date Issued

Other Authorizations

Authorization	Local, State, or Federal Office	Date Submitted	Date Issued

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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"/>	Monocell Lateral Expansion	<input type="checkbox"/>	Call-In, ORC 3734.05(A)(5)
<input type="checkbox"/>	Monocell Vertical Expansion	<input type="checkbox"/>	Operational Modification
<input type="checkbox"/>	Monocell AMDWR Change		

2. Please indicate what type of landfill facility the monocell is within.

<input type="checkbox"/>	Municipal Solid Waste Landfill	<input type="checkbox"/>	Industrial Solid Waste Landfill
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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 list all variances and exemptions, pursuant to OAC 3745-27-03, requested in the permit application:

Variance/Exemption: _____

Variance/Exemption: _____

Variance/Exemption: _____

Variance/Exemption: _____

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

Alternative: _____

Alternative: _____

Alternative: _____

Alternative: _____

7. 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: _____

Section IV – Monocell Information

Attachment A3b

1. Please state the total acreage and total volume of the monocell plus the municipal or industrial solid waste landfill.

Total Area of Waste Placement (acres)

Total Volume (cubic yards)

2. Please state the monocell’s acreage within the municipal or industrial solid waste landfill.

Total Monocell Area (acres)

Area Previously Approved (acres)

Area Currently Filled (acres)

New Area Added (or Subtracted) by this Permit (acres)

3. Please state the monocell’s volume within the municipal or industrial solid waste landfill.

Total Monocell 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)

4. Please state the authorized maximum daily waste receipt (AMDWR) requested for the monocell and the anticipated daily waste receipt.

Monocell AMDWR (tons)

Anticipated Daily Waste Receipt

Current Monocell AMDWR (tons), if any

5. If the monocell is a proposed new site, expansion, or AMDWR change, please state the life expectancy of the monocell 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)

6. Please list any components that will be shared between the monocell and the municipal or industrial solid waste landfill.

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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.

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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 (LS)	\$
b	Surface Water Conveyance Structures (LS)	\$
c	Mobilization/Demobilization (LS)	\$
d		\$
<i>Subtotal Permanent Surface Water Structures</i>		\$

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 (EA)		\$	\$
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 (LS)	\$
b	Alarm Installation and Replacement (LS)	\$
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>				\$

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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 Other Costs</i>				\$

Post-Closure Care Cost Estimate

Total Post-Closure Care 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 30 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 30 years of post-closure care)</i>		\$

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III Explosive Gas Migration Monitoring				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Quarterly (Years 1-5) (per Sample Event)	4	\$	\$
b	Alternate Frequency (per Sample Event)		\$	\$
c			\$	\$
Annual cost during first 5 years of post-closure care				\$
Total annual cost multiplied by 5 years of post-closure care				\$
d	Semi-Annual (Years 6-30) (per Sample Event)	2	\$	\$
e	Alternate Frequency (per Sample Event)		\$	\$
f			\$	\$
Annual cost during last 25 years of post-closure care				\$
Total annual cost multiplied by 25 years of post-closure care				\$
<i>Subtotal for Gas Monitoring</i> (total annual costs for 30 years of post-closure care)				\$

IV Leachate Monitoring		
	Item Description	Annual Cost
a	Annual Grab Sample 3745-27-14(A)(6)(b)	\$
b	Cost of Testing for Special Constituents	\$
c	Collection and Transportation of Samples	\$
d		\$
<i>Subtotal for Leachate Monitoring</i> (total annual cost multiplied by 30 years of post-closure care)		\$

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</i> (total annual cost multiplied by 30 years of post-closure care)		\$

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VI Operation and Maintenance of Leachate Collection and Treatment System				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection and Flushing of Collection Pipes (LF)		\$	\$
b	Inspection and Cleaning of Sumps and Traps (EA)		\$	\$
c	Replacement of Sump pumps, piping, and instrumentation (EA)		\$	\$
d	Inspection and 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 30 years of post-closure care)</i>				\$

VII Operation and Maintenance of Ground Water Monitoring System			
	Item Description	Unit Cost	Annual Cost
a	Routine Maintenance (inspection, cleaning, repairing) (LS)		\$
b	Repair and Replacement of Monitoring Wells (LS)		\$
c		\$	\$
Total Annual Cost			\$
Total Annual Cost multiplied by 30 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>			\$

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VIII	Operation and Maintenance of Explosive Gas Extraction and/or Control System		
	Item Description	Unit Cost	Annual Cost
a	Extraction Well Repair and Replacement (LS)		\$
b	Collection System Repair and Replacement (LS)		\$
c	Flare System Repair and Replacement (LS)		\$
d	Air Emissions Monitoring [NSPS and OAC 3745-76] (number of years to be monitored: _____)	\$	\$
e	Special Control and Conveyance Structures (LS)		\$
f		\$	\$
Total Annual Cost			\$
Total Annual Cost multiplied by 30 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 and Maintenance of Explosive Gas Extraction and/or Control System</i>			\$

IX	Operation and Maintenance of Explosive Gas Monitoring System		
	Item Description	Unit Cost	Annual Cost
a	Inspection, Repair and Replacement of Monitoring Probes (LS)		\$
b	Inspection, Repair and Replacement of Monitoring Alarms (LS)		\$
c			\$
Total Annual Cost			\$
Total Annual Cost multiplied by 30 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>			\$

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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</i> (total annual cost multiplied by 30 years of post-closure care)					\$

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 and Erosion Repair <small>Minimum based on annual erosion rate</small>		\$	\$
d	Rodent Control (Acre)		\$	\$
e			\$	\$
<i>Subtotal for Maintenance of Cover System</i> (total annual cost multiplied by 30 years of post-closure care)				\$

XII Operation and Maintenance of Surface Water Management System				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection, Cleaning, and Repair of Ditches (LF)		\$	
b	Inspection, Cleaning, and Repair of Conveyance Structure (EA)		\$	
c	Inspection, Cleaning, and Repair of Sedimentation Pond (EA)		\$	
d	Inspection, Cleaning, and Repair of Spillway/Outlet (EA)		\$	
e			\$	
<i>Subtotal for Operation and Maintenance of Surface Water Management System</i> (total annual cost multiplied by 30 years of post-closure care)				\$

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XIII Operation and Maintenance of Access Control Structures				
	Item Description	Annual Quantity	Unit Cost	Annual Cost
a	Inspection, Repair, and Replacement of Fence (LF)		\$	\$
b	Inspection, Repair, and Replacement of Gate (EA)		\$	\$
c	Inspection, Repair, and Replacement of Sign (EA)		\$	\$
d	Maintenance of Roadways (LF)		\$	\$
e			\$	\$
<i>Subtotal for Operation and Maintenance of Access Control Structures</i> (total annual cost multiplied by 30 years of post-closure care)				\$