



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 SOLID WASTE MANAGEMENT PROGRAM
CLOSURE AND POST-CLOSURE COST WORKSHEET

THIS WORKSHEET IS ONLY REQUIRED FOR THOSE FACILITIES THAT ACCEPT WASTE AFTER JAN. 1, 2004. OTHERS MAY USE THE WORKSHEET IF THEY CHOOSE.

DATE		NAME OF FACILITY		PERMIT NUMBER	
TOTAL PERMITTED ACREAGE (INCLUDING UNDEVELOPED AREAS)		TOTAL ACREAGE WITH WASTE IN PLACE (INCLUDING OFFICIALLY CLOSED AREAS)		TOTAL ACREAGE WITH OFFICIAL CLOSURE APPROVAL	
SUBTITLE D	NON-SUBTITLE D	SUBTITLE D	NON-SUBTITLE D	SUBTITLE D	NON-SUBTITLE D

1. How many acres is this financial assurance instrument intended for?

_____ acres for closure _____ acres for post-closure

2. Description of area (cell number, etc.)

3. What is the approved final cover system design?

- Subtitle D: one foot of compacted clay overlain with a geomembrane, a drainage layer and two feet of vegetative soil.
 Standard soil cover: two feet of compacted clay overlain with one foot of vegetative soil.

(If your facility has both subtitle D and non-subtitle D areas, separate worksheets are advisable for these areas to avoid confusion.)

4. Has an easement been granted to the Missouri Department of Natural Resources for access to and use of the borrow material for cap construction?

- Yes No

5. What is the average round-trip distance from the landfill (or phase) to the borrow area? Round trip distance should be to the nearest ½ mile if less than five miles. If more than five miles, round trip distance should be to the nearest mile. If the department does not have an easement to the borrow area, the round trip haul distance is assumed to be 10 miles.

_____ miles

6. What is the approximate volume of soil remaining in the borrow area?

Clay (cubic yards)

Vegetative soil (cubic yards)

7. What is the approved gas control system design?

- Active extraction system Passive venting system No gas control system

If you have an active extraction system, check the appropriate box.

- a. Required to control gas migration
 b. Required under NSPS
 c. Required by other agency (city, county, etc.)
 d. Specified only by design engineer

If you check box "d", is any part of the active gas system constructed at this time?

- Yes No If yes, provide a general description of the portion(s) of the system installed.

Note: Owners of Subtitle D facilities must provide a closure financial assurance instrument for either an active extraction system or a passive venting system. You must provide a closure FAI for an active system only when you are: 1) Required to install the system by the department to control off-site gas migration, or 2) Required to install the system under the Federal New Source Performance Standards, or NSPS, or 3) Required to install the system by another regulatory agency (city, county, etc.).

If you own a Subtitle D facility and meet any of the conditions, complete Form A. If you own a Subtitle D facility and do not meet any of these conditions, you are only required to provide a closure FAI for a passive venting system. Complete Form B if you own a non-Subtitle D facility (with a soil cap), you are not required to provide a closure FAI for a gas control system at all unless you also meet at least one of the above conditions. If you have installed any portion of an active gas control system, you must provide post-closure maintenance funds for the portion of the system constructed. Do this by checking the appropriate box on the post-closure cost worksheet and adding that amount to the total.

8. How many ground water monitoring wells do you have?
wells

9. List the primary and secondary wastewater treatment plants used for leachate disposal, and the cost of disposal.
(Primary plant) \$ per gallon (Secondary Plant) \$ per gallon.
 Check if the facility discharges directly to a wastewater treatment plant.

10. What is the estimated post-closure leachate generation rate and how was it derived?
(gal/acre/day) HELP model Other (please explain.)

OFFICIALLY CLOSED AREAS

11. If any areas of the landfill have been officially closed, list the following information.

Area	consisting of	acres received official closure	,	years post-closure.
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Area	consisting of	acres received official closure	,	years post-closure.

POST-CLOSURE COSTS

Inseparable Annual Costs

Annual landfill inspection and reporting		\$	1,000
Gas monitoring and reporting		\$	4,450
Annual groundwater sampling and analysis cost.	wells x 2,000 =	\$	
Annual groundwater monitoring system maintenance and statistics cost.		\$	13,700
<input type="checkbox"/> Leachate system maintenance	\$3,100	\$	
(Check if applicable and write this amount in the space provided.)			
<input type="checkbox"/> Leachate testing	\$2,250	\$	
(Check if applicable and write this amount in the space provided.)			
<input type="checkbox"/> Active gas extraction system maintenance and utilities	\$17,600	\$	
(Check if applicable and write this amount in the space provided.)			
<input type="checkbox"/> Passive gas system maintenance	\$1,600	\$	
(Check if applicable and write this amount in the space provided.)			

Separable Annual Costs

Cap repair and maintenance		acres x	=	\$
		(From Table One)		
<input type="checkbox"/> Leachate treatment (check if applicable)	acres x	x (Cost per gallon)	=	\$
		(Gal/Acre/Year)		
<input type="checkbox"/> Leachate hauling (check if applicable)	acres x	x \$0.05 =		\$
		(Gal/Acre/Year)		

Annual Costs for Other Critical Design Features

Include total annual cost for maintenance of other critical design features. Attach separate sheet(s) for cost calculations. \$

Total Annual Post- Closure Cost (2004 Dollars)

Adjust for Inflation

Adjust Amount for 2004 dollars to present value

Annual closure cost 2004 Dollars \$ x current Implicit Price Deflator**/ * Please contact the Solid Waste Management Program, 573-526-5401, for the current IPD = \$

Sum of all annual post – closure costs \$
 (Reduction. On the sixth anniversary of receiving official closure, a facility can reduce the post-closure FAI by one year's worth of fund.)

Total Post-Closure Cost

Annual post-closure costs x 30 years \$