



## Solid Waste Management Facility Cost Estimate Form

Facility Name:		Permit No.	
Address:			
City:	State:	Zip:	
FA Holder:			
Estimate Prepared By:			
Indicate the following information for which this cost estimate was prepared:			
<b>Closure Plan</b>		<b>Operating Details</b>	
Title:	Process Rate:	tons / day	
Plan Date:	Storage Capacity:	cubic yards	
P.E. Certification Date:	Processing Area:	square feet	
<b>Total Closure Cost Estimate:</b>			
Total Waste Removal Cost (including stockpiles):	\$	Specify Loading/Hauling and Disposal Rate (\$/ ton) or (\$/cy): \$	
Total Leachate/Wastewater Removal Cost:	\$	Specify Loading/Hauling and Disposal Rate (\$/ ton) or (\$/gal): \$	
Total Decontamination Cost:	\$		
Total Postclosure Cost (if necessary):	\$		
Total PE Certification of Closure:	\$		
Total Other:	\$		
<b>TOTAL:</b>		\$	
<b>References</b>			
Please indicate references used to develop this cost estimate, specify any assumptions made, and provide any supplemental calculations as necessary:			
<b>Certification by Preparer:</b>			
This is to certify that the cost estimates pertaining to the engineering features and monitoring requirements of this solid waste management facility have been prepared by me and are representative of the design specified in the facility's Closure Plan. The estimate is based on the cost of hiring a third party and does not incorporate any salvage value that may be realized by the sale of wastes, facility structures, or equipment, land or other facility assets at the time of closure. In my professional judgment, the cost estimates are a true, correct, and complete representation of the financial liabilities for closure and postclosure care of the facility and comply with the requirements of 9 VAC 20-70 and all other DEQ rules and statutes of the Commonwealth of Virginia.			
Name:	Signature:		
Title:	Date:		
<b>Acknowledgement by Owner/Operator :</b>			
Name:	Signature:		
Title:	Date:		

## **Instructions for Completing DEQ Form CE SWMF**

DEQ Form CE SWMF should be submitted by solid waste management facilities (SWMF) providing a new or updated cost estimate in accordance with a new permit or permit modification affecting the existing financial assurance cost estimate. If the facility is increasing an existing cost estimate for inflation to meet the annual financial assurance demonstration, this worksheet is not necessary. This form is designed to provide summary information regarding the individual cost estimates developed to cover the cost of facility closure and certification that the estimates are true, correct and complete.

### **Facility Name:**

Enter the name of the facility as it should appear or as it currently appears on the existing permit.

### **Permit No.**

Indicate the permit number assigned to the facility. The permit number is usually written as PBR### or SWP###.

### **Address, City, State, Zip:**

Provide the street address of the facility's physical location (may be Rural Route/Box No. if 911 address is not available)

### **FA Holder:**

Indicate the entity responsible for maintaining the financial assurance mechanism. This entity should be either the owner or operator of the facility listed, and should match the SCC documentation on file for the facility.

### **Estimate Prepared By:**

Indicate the person and entity preparing this form and the attached cost estimate worksheets. For example, if the form is prepared by a facility representative, this box should contain his/her name along with the facility name. If a consultant prepared the form, the consultant's name along with the consultant's company should be listed.

## **Closure Plans**

**Title:** Indicate the title of the Closure Plan on file at the facility. In accordance with 9 VAC 20-81-360.2., Closure Plans and amended Closure Plans shall be maintained in the facility's operating record.

**Plan Date:** Specify the plan's date. If the plan has been amended, enter the date of the last amendment.

**P.E. Certification:** Applications for new or modified Permits-by-Rule should include a certificate signed by a P.E. that facility has a Closure Plan meeting the standards of 9 VAC 20-81-360 in its operating record. Indicate the date of the P.E. Certification in this box.

## **Operating Details**

Provide details for which the cost estimate was prepared.

**Process rate:** Indicate the process rate of the facility in tons per day. The process rate is defined as "the maximum rate of waste acceptance that a solid waste management facility can process for treatment and/or storage. This rate is limited by the capabilities of equipment, personnel, and infrastructure." The process rate is often specified in the facility's Permit-by-Rule and used to estimate financial assurance.

**Storage Capacity:** Indicate the storage capacity, for both incoming solid waste and recovered material, of the facility in cubic yards. This value should correspond with the sum of the solid waste and recovered material storage capacity indicated on a facility's PBR application form.

**Processing area:** If the facility's cost estimate is based on the processing area, the size of the processing area should be provided in square feet.

## **Total Closure Cost Estimate**

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In the box provided, indicate the total estimated cost to close the facility. In accordance with 9 VAC 2-70-111.A., the closure cost estimate shall (1) equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive; (2) be based on the costs to the owner or operator of hiring a third party to close the facility; and (3) may not incorporate any salvage value that may be realized by the sale of wastes, facility structures or equipment, land or other facility assets at the time of partial or final closures. To comply with these requirements, the closure cost estimate for solid waste management facilities should include costs associated with the removal of solid waste and leachate/wastewater remaining on site at closure; decontamination of equipment, containers, and/or structures; postclosure care which may include testing to ensure the facility has not contaminated underlying soils and/or groundwater (if contamination of underlying soils or groundwater is anticipated); P.E. certification of closure; and any other potential costs associated with closing the facility. Worksheets or other documentation substantiating the costs associated with closure should be provided as an attachment to this form.

### **Total Waste Removal Cost:**

The cost of waste removal should include unit costs for loading all wastes stored on site and the costs associated with hauling and disposing/treating (i.e. tipping fee) the wastes at the closest solid waste disposal or management facility. In addition, removal and treatment/disposal costs for all materials stored on site for beneficial use (excluding the first 20 cy of each material), as indicated in [Guidance Memo 04-2011: Financial Assurance for Stockpiles of Materials for Beneficial Use or Other Uses](#), shall be covered by the facility's estimated closure cost. The Department offers the following equations which can be used to determine the portion of the SWMF closure cost estimate for the removal of wastes remaining on site at closure.

1. *Process rate cited in the facility permit*

If a process rate is referenced in the facility permit, the removal cost may be based on the process rate in tons per day (TPD) plus the total on-site storage capacity in tons for all stored waste materials multiplied by the hauling and disposal cost per ton.

Waste Removal Cost, \$ = [(Process rate, TPD) + (Storage Capacity, tons)] x (Loading/Hauling + Disposal Rate, \$/ton)

2. *Process rate not cited in the facility permit*

In the event that the facility permit does not contain a daily process rate, the estimated maximum on-site storage may be determined on the basis of the dimensions of the tipping floor or waste pile. An estimated maximum on-site storage can be calculated using the area of the tipping floor or waste pile (in square feet) and an average waste pile height. This volume can be used to determine an estimated tonnage and removal cost.

Waste Removal Cost, \$ = [Area of tipping floor/waste pile: (length, feet) x (width, feet)] x (Height of waste pile, feet) x (0.037 cy/cf) x (0.4 tons/cy) x (Loading/Hauling + Disposal Rate, \$/ton)

Alternate calculations may be used; however, all estimates should provide documentation and justification for the cost factors and equations used.

### **Total Leachate / Wastewater Removal Cost:**

In the case of facilities that collect leachate, the closure cost estimate should include the cost of loading/hauling and disposing of the maximum leachate storage capacity at the prevailing industrial rate for the appropriate wastewater treatment facility.

### **Total Decontamination Cost:**

Costs associated with decontaminating equipment, containers, and structures should be provided for, if necessary. The estimate to cover decontamination should provide for a third party performing the service. Remember, salvage value of equipment and structures cannot be considered when determining the estimate.

### **Total Postclosure Costs:**

In accordance with 9 VAC 20-81-360.1.b, if all contaminated subsoils cannot be practicably removed or decontaminated, the facility shall perform postclosure care in accordance with the closure and postclosure care requirements. This may

include soil and groundwater sampling and testing. If so, the postclosure cost should include costs associated with mobilization of a sampling team and costs associated with the number of sampling locations and number of tests to be performed. Inclusion of costs associated with testing will not be applicable to most solid waste management facilities designed, constructed, and operated in accordance with the VSWMR.

**Total P.E. Certification of Closure:**

Total cost for a professional engineer licensed in the State of Virginia to certify the facility has been closed in accordance with the facility's approved Closure Plan in accordance with 9 VAC 20-81-360.2.e.

**Total Other:**

If any other costs associated with the closure of the solid waste management facility are anticipated and they do not fall under the previous categories, the total cost should be provided on this line. Documentation for the other costs should be provided as an attachment to this form.

**References**

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In the space provided, list references used to prepare the cost estimate and specify any assumptions used in the calculations. These references can be bids or actual cost data from previous projects, RSMMeans values, or other applicable data. References listed should include dates associated with the documentation. If valuable to support the worksheets provided, please attach copies of references to this form. Any supplemental calculations should also be provided to demonstrate how costs were calculated if they vary from those calculations outlined in the instructions

**Certification by Preparer**

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The person responsible for preparing the cost estimate should read the certification statement and provide his/her name, title, signature, and date to certify that the facility cost estimate provided is true, correct, and complete.

**Acknowledgement by Owner/Operator**

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If DEQ Form CE SWMF and the attached cost estimate worksheets are prepared by a third party (i.e. consultant), a responsible official representing the FA Holder should indicate his/her acknowledgement of the cost estimate. If this estimate is prepared by a responsible official representing the FA Holder then this line can be left blank so long as the Certification by Preparer is signed.