

## **T-9.1 SWANA TECHNICAL POLICY**

### **PROVIDING FINANCIAL ASSURANCE FOR MUNICIPAL SOLID WASTE MANAGEMENT DISPOSAL FACILITIES**

#### **I. POLICY**

SWANA fully supports regulations that establish reasonable requirements for financial assurance for:

- Corrective Action During the Active Life of a Disposal Facility
- Closure
- Post-Closure Care and Monitoring
- Post-Closure Corrective Action

Long-term management is a new policy that is still in draft format.

Of the options available for demonstrating financial assurance, SWANA believes that, while any of the options discussed may meet the needs of financial assurance, the utilization of trust funds offers the most fair and equitable means to assure the availability of adequate and guaranteed funds at the time they are needed.

Trust funds provide a funding method whereby the issue of ownership is not a factor.

Trust fund deposits can be raised through direct charges to the users of a disposal facility who in turn will direct those charges back to the generators. Thus, generators of the waste will pay all costs associated with current disposal as well as long-term security of the disposal facility.

Owners who do not charge a gate fee can still annually provide deposits into a trust fund for the variety of activities requiring financial assurance. In the case of either the public sector or the private sector those funds would come from the revenue sources that are the basis for their annual operating budgets.

A trust fund should be established for all the activities listed above and should be funded based on a financial plan for the life of the facility. The plans should include the investments of deposited funds in secure assets with restrictions on withdrawal and use of the funds and their earnings.

In order to assure the complete integrity of the trust funds, state/provincial agencies should be authorized to maintain oversight over all funds established. While the funds would remain in the administrative and management hands of individual facility owners, their integrity must be assured. Much like a banking regulatory agency, states/provinces/governments should establish rules and policies for the administration of such funds, provide oversight on establishing deposit dates for the fund, and see that the rules and policies are followed by those who have established the trust funds. The organization establishing a trust fund should have reasonable discretion to supervise and manage the funds subject to limitations necessary to protect the fund. When the post-closure term is completed, and all obligations fulfilled, any balance of monies remaining in the fund should be returned to the organization establishing the fund.

## **II. BACKGROUND**

The management of municipal solid waste utilizes a number of intermediate steps (collection, curbside recycling, transfer, materials recovery, combustion, etc.) before some portion of the solid waste is presented for final disposal in a landfill. In addition, several of the processes result in residue that must also be disposed of in a landfill. Finally, there are components of the municipal solid waste stream that will always go to a landfill for disposal.

The regulations for disposal facilities (landfills) will not become any less complicated or costly. Operating financial assurance, post-closure care funding, and long-term care are a significant part of the cost of doing business. Corrective or remedial action-steps are a completely open-ended liability that is all too common in pre-regulation facilities.

- **Operating financial assurance:** These are funds that are available to close a facility in the event of a financial or operational collapse of the operator. It includes closure/post-closure activities costs associated with the closure and post-closure care of a landfill. Expenditures experienced after the facility stops taking materials in are estimated. This cost is usually associated with maintenance of the facility and environmental monitoring.
- **Long-term management:** These costs are just beginning to be defined. The liability of landfill that has been closed for more than 30 years is very real and site specific. Failure of systems components and applying current standards to old facilities is the worst-case scenario. Evaluating the facility and applying measures that protect public health and the environment is the best available option.

All of these requirements obligate financial resources. Most require resources after a landfill is closed and is no longer generating revenue or is no longer an active part of an operating budget of a landfill owner/operator. In addition, corrective or remedial action activities may occur during the active life of a landfill and continue indefinitely.

The costs for these activities has prompted a need for substantial financial resources. The requirement for such financial resources is referred to in summary as "financial assurance". This policy addresses financial assurance for municipal solid waste management disposal facilities.

## **II. DISCUSSION**

Financial assurance for both operating and closed disposal facilities requires financial assurance as defined by the EPA division or by the state or province, in which the facility is operating in. When planning a facility, it is imperative that the owner of the facility carefully evaluate the types/methods of financial assurance mechanism that the local regulators will accept/approve. There are significant variations between different states and provinces.

### **A. Active Landfills**

During the active life of a landfill, funds for corrective action, and environmental monitoring are raised by tipping fees or taxes.

Corrective action, during operation, is a cost of doing business. Owner/operators are required to develop a plan for corrective action and for financing corrective action, closure and pre-closure environmental monitoring. Demonstration of long-term financial viability is required throughout the active life of the landfill.

## **B. Closed Landfills**

There are four programs associated with closing and maintaining closed landfills that require financial assurance:

1. **Closure:** All steps necessary to complete final closure of a landfill (final closure means a landfill, or a portion of a landfill, which no longer will receive solid waste). Closure is a continuing process that is predicated by the design.
2. **Post-Closure Care:** All steps necessary to inspect and maintain the final cover system, operate the leachate and landfill gas collection and control system, maintain the stormwater management system, other environmental monitoring and control systems; the costs for sampling and analyzing groundwater, leachate, and gas; and the reporting of the findings to the owner/operator (trustee for the facility) and the regulatory agency.
3. **Post-Closure Corrective or Remedial Actions:** All steps necessary to correct any variation of the closure requirements relative to groundwater or gas.
4. **Long-term Management:** Liability experienced after the 30 (or more) year post closure limits.

A discussion of financing each of these programs follows.

### **1. Closure**

Closure is a process that can be determined and predicted during the design of a new facility. Closure design should be a part of any permit application for a new facility or an extension to an existing facility and in the case of existing facilities should be required in order to maintain an active permit.

Therefore, financial assurance for closure is an economic and engineering consideration that can be predicted and built into the financial plan for the facility as a part of its operating budget. In the operating budget of a new landfill one should identify and establish an account for closure to assure that the resources are available whenever a portion is closed.

For those existing facilities that have not been able to accrue funds during the full life of the facility, the funds for closure will have to be collected and accelerated during the remaining time of operation. Annual estimates of closure costs should be made, and the financial assurance mechanism(s) should be adjusted accordingly.

### **2. Post-Closure Care**

Post-closure care can encompass a number of processes depending upon the type of facility. The following is an illustrative list of the types of processes that would be part of post-closure care:

- a) Inspection and care of the final cap to assure grade, vegetation, and integrity
- b) Operation and maintenance of a landfill gas management system
- c) Operation and maintenance of a leachate management system
- d) Operation and maintenance of the monitoring systems for landfill gas, surface water and groundwater
- e) Post-closure environmental monitoring

Funds for these activities cannot be raised through the operations of the landfill after the facility is closed. Therefore, post closure funds should be included in gate fees and set aside in protected financial reserve accounts. Annual estimates of post-closure costs should be made, and the financial assurance mechanism(s) should be adjusted accordingly.

The cost for post-closure monitoring of groundwater, surface water and landfill gas will have to be funded in much the same manner as for post-closure maintenance. Since it is a post-closure activity, the funds should be raised during the operational phase or through some other means acceptable to a regulatory agency prior to the issuance or continuation of a permit to operate a landfill.

The costs for post-closure care can incorporate appropriate and supportable reduction to operating costs over time, as leachate and landfill gas generation rates will decrease over time following closure. The estimated annual costs for post-closure environmental monitoring may assume reductions over time, (i.e. reduction in frequency of groundwater sampling or gas migration probe sampling) as the closed landfill moves toward meeting the performance standards for reduction or elimination of leachate and landfill gas generation. Any reduction in frequency will need to be approved by the regulatory agency and supported by trends in the environmental data.

### **3. *Post-Closure Corrective and Remedial Action***

This regulatory requirement is perhaps the most difficult to predict. Therefore, it is the most difficult for which to provide a plan to assure adequate funds. The funding plan must assure the availability of enough money to take the necessary corrective action steps to bring a closed facility back into compliance with environmental requirements. Consequently, financial assurance for post-closure corrective action must receive special attention from the owner/operator and the regulatory agency.

### **4. *Long-Term Management***

This is the cost necessary to protect the environment after the post-closure period has passed.

#### **C. *Demonstrating Financial Assurance***

There are limited options for demonstrating financial assurance. All of these options may have applicability for specific landfill facilities. A discussion of each of the more applicable options follows:

#### **1. *Letters of Credit***

Letters of credit are commitments from third parties, usually commercial banks, to provide monies when and if needed pursuant to terms of the credit agreement signed with the bank.

If a letter of credit is utilized, the letter of credit bank, in effect, guarantees the payment. In the alternative, the letter of credit would guarantee that if the funds that are intended to be available from a trust fund are insufficient, it will make whole the deficient amount. The letter of credit, which will run to a trustee, represents an unconditional commitment on the part of the bank to pay to the trustee monies due upon demand.

The credit rating of the bank is an important consideration in selecting a letter of credit provider. This is because the bank's credit rating will be substituted for the rating of the municipality or the company. However, the substitution of the bank's credit rating occurs only if the bank's commitment to pay is irrevocable and otherwise unconditional. Each regulatory agency has their requirements for letters of credit.

#### **2. *Bonds***

Local government General Obligation bonds are generally too expensive and cumbersome for financial assurance. Surety bonds are being used by several states. Bonds for private facilities are expensive and require significant collateral.

### **3. Financial Test**

Municipal authorities and other entities such as county or city government can utilize financial tests as defined by the regulatory agency or EPA to meet the requirements of financial assurance.

### **4. Trust Funds**

This approach raises funds through a number of means that clearly identifies the funds for a specific purpose and isolates those funds for that purpose only. The authority for trust funds and their operating procedures should be based on state or provincial regulations. Those regulations must address such issues as funding, investment, expenditure, and disposition of the fund at the end of the post-closure period.

Trust funds have the advantage of being available to all owners. Trust funds offer assurance to the public that there will be funds when needed. In the case of disposal facilities, funds would be raised by charges to the users of such facilities. In the case of facilities that operate partially or totally on gate fees, such fees would have to be increased to provide monies to the trust fund. Where facilities operate with funding through contracts or tax revenue, funding must be included in the operating budgets to provide monies for the trust fund. In either case, the significant point in favor of trust funds is that the cost for the required funds are paid by the generators of the waste going into the facility. Trust funds, even with the difficulty of structure ownership of the dollar resources, etc. are a very attractive option for financial assurance.

CERTIFIED to be correct and complete statement of the approved policy.

UPDATED and APPROVED by the International Board  
on the 4<sup>th</sup> day of May 2018



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Originally adopted by the International Board, 19 August 1990

Modified 13 June 1994