

DSH-SW-05-01
New York State Solid Waste
Management Policy Guidance

New York State Department of Environmental Conservation

DEC Policy

Issuing Authority: Division of Solid & Hazardous Materials

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I. Summary:

This Program Policy was formerly identified as TAGM SW-89-01.

This document provides guidance on what the Department will consider to be an acceptable analysis of an application's or plan's "consistency" with ECL 27-0106. It should be recognized that every plan and most applications require a comprehensive recycling analysis (360-1.9[f]) that includes an implementation program. This program requires the adoption of local laws or ordinances mandating source separation and recycling, regardless of the final waste management option proposed. The analysis must also demonstrate how the applicant will achieve the State's performance objective of 50 percent waste reduction and recycling, which was established in the New York State Solid Waste Management Plan.

II. Policy:

Section 27-0106 of the Environmental Conservation Law (ECL) sets forth the State's statutory solid waste management policy. This policy provides an ordered listing of preferred solid waste management methodologies for managing our solid wastes in a manner that will reduce our dependency on land burial of raw wastes. This hierarchy, in descending order of preference, is:

- a. first, to reduce the amount of waste generated;
- b. second, to reuse material for the purpose for which it was originally intended or to recycle material that cannot be reused; (For this purpose, composting is considered a form of recycling.)
- c. third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled; and
- d. fourth, to dispose of solid waste that is not being reused, recycled or from which

energy is not being recovered, by land burial or other methods approved by the Department (ECL 27-0106.1). (All solid waste management methodologies not specifically identified in the hierarchy under (a), (b) and (c) (for example, non-energy recovery incineration) have equal preference to land burial. Note: All forms of composting come under (b) in the hierarchy.)

In addition, “this policy, after consideration of economic and technical feasibility, shall guide the solid waste management programs and decisions of the Department and other state agencies and authorities” (ECL 27-0106.3).

III. Purpose and Background:

The Department interprets ECL 27-0106.3 to require any level of local government developing a local solid waste management plan under ECL 27-0107 or applying for 6 NYCRR Part 360 permits to construct and to operate a solid waste management facility or to renew a permit to operate such a facility, to address consistency of the proposed plan or project with the ordered listing, emphasizing maximum feasible waste reduction, source separation and recycling. Furthermore, under 6 NYCRR Part 360-1.9(f), any such application submitted by or on behalf of a municipality for an initial 6 NYCRR Part 360 permit to construct or to operate a landfill (other than one exclusively for ash-residue, clean fill, or construction and demolition debris), solid waste incinerator (other than one used exclusively to incinerate infectious waste), a refuse-derived fuel processing facility, a recyclables handling and recovery facility, a composting facility (other than one used exclusively for yard waste or sludge), or a transfer facility must include a comprehensive recycling analysis, or a local solid waste management plan that addresses all components of a comprehensive recycling analysis.

IV. Responsibility:

The responsibility and update of this Program Policy shall reside with the Division of Solid & Hazardous Materials. Any questions regarding solid waste management that cannot be answered by this Policy, should be directed to the Bureau of Solid Waste, Reduction & Recycling, 518-402-8704.

V. Procedure:

Every local solid waste management plan and all applications for Part 360 permits to construct or to operate, or renew a permit to operate, a solid waste management facility must describe how the plan/project proponent has accounted for each solid waste management methodology in order of appearance in ECL 27-0106.1 and discuss the programs which are planned. As an example, the plan should discuss the program which will be used for waste reduction and then for recovering recyclables as preferred methods to reduce the waste stream instead of incineration in an energy recovery facility or disposal in a landfill.

a. Waste Reduction/Reuse/Recycling

The recyclables recovery program must detail how each facility for which a permit is sought or planning unit (in the case of a plan) will attain specified, progressively increasing percentages by weight of the residential and commercial waste stream that shall be recovered as recyclables on an annual basis. An example of progressively increasing percentages is: 25% by year 1, 35% by year 2, 45% by year 3, and 50% or

greater by year 4, and so on, of the plan or permit. The actual percentages to be attained are case specific; however they must reflect the maximum practicable that could be obtained under the circumstances. This program should, at a minimum attain 50% waste reduction/reuse/recycling, as established in the State's Solid Waste Management Plan.

The plan/application also must address the source separation mandate identified in Section 120-aa of the General Municipal Law, and how the proposed recyclables recovery program complies with the September 1, 1992 source separation mandate. Wherever indicated, and in accordance with ECL Article 8, permits for Part 360 facilities should include a condition mandating adoption of source separation ordinances at an earlier date, in order to achieve progressively increasing recovery percentages.

b. **Waste-to-Energy, Land Burial and Other Methods Approved by the Department**

Since the inception of the solid waste management hierarchy, many municipalities have expressed concern that they would be forced to include waste-to-energy incinerators with waste reduction/reuse/recycling as part of their solid waste management plan, even if raw municipal waste landfilling with waste reduction/reuse/recycling was evaluated to be an environmentally and economically sound solid waste management program. This concern is misplaced.

Although raw municipal waste landfilling is listed as the least preferred method in the solid waste management hierarchy, in combination with waste reduction/reuse/recycling, it may be acceptable for a municipality or applicant to choose that combination over waste-to-energy incineration in combination with waste reduction/reuse/recycling, based upon case-specific factors, which could include environmental, geographic, demographic, economic and other circumstances appropriate for the area to be serviced.

This determination would be made during Department review of the project for compliance with 6 NYCRR Parts 360 (Solid Waste Management Facilities) and 617 (State Environmental Quality Review [SEQR]). The ECL links the permit/SEQR process to the solid waste management hierarchy by two explicit means: ECL 27-0106.3 and 27-0707.2.a. These provisions require the assessment of the project to address the project's consistency with the hierarchy.

If a municipality or applicant proposes raw municipal waste landfilling with waste reduction/reuse/recycling for the area to be serviced, the environmental assessment of the project, after first addressing the minimization of the quantity of waste brought to the facility for treatment or disposal (i.e., through the implementation of comprehensive waste reduction, reuse and recycling programs—including composting), must clearly articulate and substantiate its decision and compare the relative merits of raw municipal waste landfilling with waste reduction/reuse/recycling and waste-to-energy incineration with waste reduction/reuse/recycling in the area proposed to be serviced by the project.

This comparison should address such items as, but not limited to: the short and long-term economic, social and technical feasibility of each solid waste management methodology; an assessment of the land resources required by the project and the area required for the landburial of both raw and residual waste; and the potential end use(s) of the landburial facility. Examples of items that should be addressed in the cost analysis are detailed in Tables 1 and 2.

The Department will evaluate the issue of the proposed project's consistency with the statutory hierarchy of solid waste management methodologies, along with all the other information received on the proposed project, and will then decide, on a case-by-case basis, the acceptability of the specific proposal for the selected solid waste management methodology.

In this manner, the project sponsor will evaluate the proposed project in accordance with the hierarchy in ECL 27-0106, and may come to the conclusion that a waste-to-energy incineration facility may not be necessary after it has been examined as previously described.

However, the project sponsor may come to the conclusion that it is feasible and desirable to take the remaining portion of the trash that is not reduced/reused/recycled and extract energy from it through incineration, and significantly reduce the volume of waste materials that will be buried in the ground.

TABLE 1

GENERAL WASTE-TO-ENERGY COST FACTORS

Pre-development:

Site Selection
Environmental Assessments
Permit Application (includes Engineering/Legal Fees)
Land Acquisition/Lease

Site Preparation and Construction:

Site Preparation
Construction Labor
Construction Management
Structures (Materials and Equipment)
Start-up
Acceptance Testing
Insurance During Construction
Financing costs (Capitalized Interest, Bonding, etc.)
Miscellaneous (Sales and Use Taxes, etc.)

Facility Operation and Maintenance:

Administrative Personnel
Equipment (Labor, Contracts, Supplies, Spare Parts)
Facility and Building (Labor, Contracts, Supplies, Spare Parts)
Fuel and Chemicals
Testing and Monitoring
Contract Services

- Reporting Requirements
- Legal
- Management
- Equipment Rental

Host Fees
Residue/Bypass Hauling, Treatment, and Disposal*
Major Equipment Replacement (Replacement Year and Replacement Cost)
Equipment Rentals or Leases
Insurance

Cost/Post Closure: (if any)

Revenues:

Recovered Energy (Steam and/or Electricity)
Tipping Fees

* Refer to Table 2 for costs factors associated with residue and bypass landfills.

TABLE 2

GENERAL LANDFILL COST FACTORS

Pre-development:

Site Selection
Environmental Assessments (includes Hydrogeologic Investigation)
Permit Application (includes Engineering/Legal Fees)
Land Acquisition/Lease

Site Preparation and Construction:

Site Preparation

- Clearing & Grubbing
- Base Area Preparation

Construction Labor
Construction Management (includes Quality Assurance/Quality Control)
Structures (Materials);

- Liner & Leachate Collection System
- Leachate Storage Facility
- Building & Scales
- Access Road & Control Roads

Insurance During Construction
Financing costs (Capitalized Interest, Bonding, etc.)
Miscellaneous (Sales and Use Taxes, etc.)

Facility Operation and Maintenance:

Personnel
Equipment (Purchase, Maintenance and Replacement)
Facility and Building Maintenance (Labor, Contracts, and Supplies)
Leachate Hauling & Treatment
Environmental Monitoring/Testing
Contract Services

- Reporting Requirements
- Legal
- Management

Host Fees
Maintenance (Grounds and Leachate Collection System)
Insurance

Closure:

Engineering
Construction Labor
Construction Management (Quality Assurance/Quality Control)
Structures (Materials)

- Final Cover System
- Gas Control

Insurance During Construction

Post-Closure:

Leachate Hauling & Treatment
Environmental Monitoring
Annual Inspections
Maintenance (Cap & Leachate Collection System)
Insurance

Revenues:

Recovered Energy (Methane Recovery)
Tipping Fees