Waste Management of New York, LLC

Mill Seat Landfill
Operations and Maintenance Manual

Prepared for:

Waste Management of New York, LLC
303 Brew Road
Bergen, New York 14416

Prepared by:

CLARK PATTERSON ASSOCIATES
186 North Water Street
Rochester, New York 14604

January 2003

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

Mill Seat Landfill is a currently permitted, 95-acre municipal solid waste (MSW) landfill, located at 303 Brew Road in the Town of Riga, Monroe County, New York and is owned by Monroe County. On January 15, 2002, Waste Management of New York, LLC (WMNY) entered into an agreement with Monroe County for a life use lease of the Mill Seat Landfill. Under the 49-year agreement, Monroe County retains ownership of the land while Waste Management assumes all operation, marketing and management of the facility through closure.

This report describes the daily Operation and Maintenance (O&M) procedures required for the Mill Seat Landfill. Stringent O&M procedures are necessary to ensure that the landfill operations adequately manage all solid wastes to be disposed while maintaining all applicable environmental and public health standards. The O&M manual for any landfill regulated under 6 NYCRR Part 360 must contain a comprehensive description that reflects the day-to-day facility operations throughout the active life of the facility. This Operations and Maintenance Manual meets the operation and reporting requirements set forth in sections 360-1.14 and 360-2.9 of Part 360 and addresses the following components.

Section 2.0 – Landfill Disposal Methods
A general description is provided of the landfill's overall operation, identifying disposal methods.

Section 3.0 - Personnel Requirements
The plan includes a description of the personnel requirements, stating personnel responsibilities and duties and lines of authority at the landfill, includes discussions for implementation of a training program for facility operators and other key personnel for the overall facility operation.

Section 4.0 - Machinery and Equipment
A description of all the machinery and equipment, including health and safety and gas monitoring equipment, to be used at the landfill, their intended uses, safety features and availability of standby equipment in the event of breakdowns, maintenance, or loss of power is provided.

Section 5.0 - Landfill Operational Controls
A description of the operational controls, including but not limited to signs, hours and days of operation, usage rules and regulations, and traffic controls is provided.

Section 6.0 - Fill Progression
The plan includes a detailed description of the landfill's fill progression, addressing and detailing typical daily cell progression and lift sequence, and provisions for subsequent development of the landfill.

Section 7.0 - Waste Amounts and Characterization
The plan includes a description of the anticipated amount of all solid waste to be received per day, specifying the quantities received in tons per day, the specifications for the select waste to be placed as the first lift of waste ensuring compliance with the provisions of 360-2.17(b)(3).

Section 8.0 - Solid Waste Receiving Process
A description of the landfill's solid waste receiving and monitoring process for solid waste, a system for daily recording of solid waste received on a basis of type (such as municipal solid waste, ash, sludge, industrial waste, etc.) and quantity; procedures for identification of the solid waste to be restricted; and identification of those wastes required to undergo special handling or treatment before acceptance (such as, asbestos wastes, sludges, etc.) is included.

Section 9.0 - Cover Material Management Plan
A detailed description of the types and functions of daily, intermediate and final cover is addressed in this plan.

Section 10.0 - Environmental Monitoring Plan
A copy of the environmental monitoring plan as required in Section 360-2.11 is kept on file as a separate document.

Section 11.0 - Leachate Management Plan
This plan includes a comprehensive description of the landfill's leachate management plan, addressing the leachate collection, storage, removal, and treatment systems to be utilized and a discussion of the specific design and operational features related to these systems, including leachate monitoring, alarm systems and maintenance and any required on-site back-up equipment.

Section 12.0 - Gas Monitoring Program
This plan includes a description of the gas monitoring program, which demonstrates compliance with the provisions of subdivision 360-2.17(f) and discusses explosive gas generation at the landfill and the controls used to ensure that such gas will not create a hazard to health, safety, or property.

Section 13.0 - Winter and Inclement Weather Operations
A description of how winter and inclement weather operations will be conducted including identification of those specific provisions to be taken to prevent frost action upon the liner system in places where refuse has not been placed is included.

Section 14.0 - First Lift Placement Procedures
This plan contains a description of the procedures and precautions to be taken during the placement of the first lift of waste above the liner and leachate collection system, describing the select solid waste and its placement, approach and operation of collection vehicles and compaction equipment, with concern for minimizing adverse impacts on the liner and leachate collection system.

Section 15.0 - Fire Prevention Plan
This plan contains sufficient information for use as a training document, illustrating procedures on landfill fire prevention and necessary procedures to be taken in the event of a landfill fire.

2.0 LANDFILL DISPOSAL METHODS

The Mill Seat Landfill operates in accordance with the requirements of 6 NYCRR Part 360 relating to solid waste landfill operations. The landfill is constructed with a perimeter access road for use in transporting waste and cover materials to the landfill working face. The Mill Seat Landfill operation includes a gas management program and leachate collection and recirculation.

2.1 Environmental Control Measures

No open burning is performed on site, and salvaging is not allowed at the site. The following control measures are also employed to ensure landfilling operations are completed in an environmentally sound and resource conscious manner.

Dust Control
Dust is controlled by applying water to access roads and operating areas during dry periods. A water well and public water provide on-site sources of water. The site has a dedicated water truck available on site. Areas disturbed are revegetated as soon as practicable.

Litter Control
To prevent windblown litter, waste received at the site must be contained in enclosed, covered or secured vehicles. In addition, high fencing installed on the prevailing downwind (eastern) side of the landfill aids in the collection of wind blown refuse from the site. Moveable temporary fencing may also be placed near the working face to contain wind blown refuse. Mill Seat Landfill shall police windblown debris along the landfill perimeter as necessary and at least weekly. Temporary personnel may be utilized to pick papers from the area surrounding the site following periods of high winds when litter may be a problem.

Odor Control
Mill Seat landfill is required to cover wastes daily with 6 inches of soil or an approved alternate daily cover material. Additionally, gas migration is managed through a network of horizontal and vertical gas collector wells piped to a flare unit. Citizens can dial (585) 494-3000 24 hours a day to register odor complaints.

Noise Control
All equipment shall meet the operational noise requirements set forth in Part 360-1.14(p).

Vector Control
Vectors, primarily gulls, can be a nuisance to landfill operations. The following procedures are employed to minimize vectors.

> Daily Cover: All exposed refuse is covered on a daily basis. Various forms of daily cover can be used, including soil, BUD materials, foams, tarps, cement kiln dust (Posi-shell), and ash.

Limiting the Size of the Working Face: Generally, the open working face of the landfill shall be kept to an area no larger than 150 x 150 feet. All surrounding areas are covered (either with daily cover, interim or final cover).

Good Housekeeping: Daily, weekly and monthly litter patrols are standard practices at most active landfills. In the event litter from the Mill Seat Landfill is blown off-site, Mill Seat Landfill staff or temporary laborers will pick it up immediately.

3.0 PERSONNEL REQUIREMENTS

Operation of the Mill Seat Landfill requires a full-time staff. The staff members can vary in number and level of responsibility. However, in general staff members and their responsibilities are as follows:

- District Manager
  - Manages all landfill operations
  - Manages contracts with waste hauling companies
  - Oversees any construction at the site
  - Ensures that the landfill is operating in compliance with the terms and conditions of the permit;

- Operations Manager
  - Manages day-to-day construction and operations

- Site Engineer
  - Ensures that the landfill is developed according to the engineering plans
  - Records any variations from the engineering plans
  - Monitors environmental compliance of the facility;

- Equipment Operators
  - Operate the equipment listed in Section 4 for the purposes of site construction, waste placement, and site maintenance;

- Mechanics
  - Perform routine maintenance on all of the equipment at the facility;

- Scale Operator
  - Record the weights and physical condition (i.e., covered, leaking, etc.) of all waste hauling vehicles that enter the site;

- Gas Technician
  - Maintains and monitors the landfill gas systems components;

- District Controller
  - Manages the financial and fiscal affairs of the site;

- Laborers
  - Perform miscellaneous tasks at the site;

- Primary emergency coordinator
  - Fulfill the role described in the Contingency Plan. This individual may also have other roles and responsibilities at the landfill; and

- Clerical personnel
  - Perform clerical tasks associated with office operations, as well as perform backup to the scale operator.

In addition, numerous part-time personnel may be added to the Mill Seat Landfill staff as necessary during periods of construction, during routine cleaning of the facility, during special projects, etc. If conditions warrant, additional engineering, operations and safety personnel, may be obtained from other WMNY facilities in the area. During landfill construction events, several contractors may be present on site. The number of personnel employed by the contractor varies based on the particular requirements of each project. Mill Seat Landfill will record the names and employees of all contractor crews at the site.

All site personnel are trained to perform their specific duties and to recognize potentially hazardous or dangerous situations at the landfill. Training for all operations employees includes but is not limited to the following topics under supervised review:

- Part 360 Operating Permit Conditions
- Waste Identification
- Spill Prevention
- Emergency Management Procedures
- Lock Out / Tag Out
- Special Waste Management
- Asbestos Management

The facility manager is also certified as having been trained under the NYSDEC "Sanitary Landfill Operator Training".

Facilities are provided on site for employees, and employee safety procedures are emphasized. On-site facilities that are provided for employees include a break room area with a public drinking water supply, showers, lockers, toilet facilities, and telephone. Efforts are made to minimize on site safety hazards through employee training programs, equipment maintenance, and emphasis on employees safety in daily operations.

4.0 MACHINERY AND EQUIPMENT

In this section, the types of equipment that are used at the Mill Seat Landfill facility are identified. The type of equipment that is needed to operate the Mill Seat Landfill facility is based on operating this facility on a daily basis.

Daily Operations

- Landfill Compactors – Spread and compact wastes on the working face.
- Bulldozers – Spread daily and intermediate cover.
- End Dump Truck – Haul soil cover from borrow area.
- Excavator – Excavate and load cover material.
- Loader – Move large quantities of materials.
- Roller – Maintain access roads.
- Grader – Maintain access road and ditches.
- Water Truck – Dust control, fire fighting if necessary.
- Road Sweeper – Maintain roadways.
- Salt Truck / Plow – Maintain roadways.
- Service / Support Vehicles – Miscellaneous operations

The listed equipment is a best estimate of equipment that is used for operation of the facility. Sufficient equipment is maintained on-site to allow for proper operation of the facility. All equipment is maintained in operational condition by servicing at the on-site maintenance building. All listed equipment is equipped with necessary safety features designed to meet applicable OSHA standards, and with two-way radio communications.

If additional equipment is required, it will be leased on an as-needed basis or transferred to the site from another Waste Management facility. All equipment shall meet the operational noise requirements set forth in Part 360-1.14(p).

The following facilities are provided at the landfill site:

- Administration Building – House offices for the Landfill Administration. A communications center (two-way radio and telephone) and first aid station are available. A conference room/education center is available.
- Scale House – Radio and telephone communications are provided. A computerized weight recording system is available. A video camera will record transactions at the scale. An 11'x70' platform scale is available.
- Inspection/Truck Staging Area - An area is set aside and provided with windscreens for load inspection and potential use as a hot load pad.
- Maintenance Facility – A building will house truck/heavy equipment maintenance bays, offices, locker room, lunch/break room, and repair shop.

5.0 LANDFILL OPERATIONAL CONTROLS

Mill Seat Landfill is open for waste acceptance at specific times and on specific days. When the landfill is not open for waste acceptance, access is restricted to WMNY personnel and their designates.

Site operation controls are implemented to maintain orderly and efficient waste management procedures during landfill operations. Operation of the landfill and landfill related activities is performed in accordance with the following:

- Waste receipt operations:

Monday through Friday	7:00 a.m. to 5:00 p.m.
Saturday	7:00 a.m. to 1:00 p.m.
Sunday, Holiday(1)	Closed
Saturday following Holiday	7:00 a.m. to 5:00 p.m.

  (1) Holiday shall include New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas.

- Daily cover operations:

Monday through Friday	6:00 a.m. to 6:30 p.m.
Saturday	6:00 a.m. to 3:00 p.m.
Saturday following Holiday	6:00 a.m. to 6:30 p.m.

- Construction activities not directly related to the disposal:

  7:00 a.m. to 9:00 p.m.

Landfill-related activities may include snow removal, road maintenance, "dress up" of landfill sideslopes, cleaning of sedimentation ponds, extension and connection of gas recovery wells, repair of drainage ditches and erosion control systems, repair of litter fences, etc. There are no restrictions on activities that do not require the operation of equipment. These activities shall include equipment maintenance, facility maintenance (such as electrical or phone repair), office personnel, etc. Mill Seat Landfill will notify the NYSDEC, in writing, of operating hours for special projects before beginning the project. Special projects shall include such items as final cover system placement, installation and decommissioning of ground-water monitoring wells, etc.

Signs indicating the facility name, owner, and hours and days of operation are posted at the site entrance. The signs will also include general landfill usage rules and regulations, including a sign posted at the entrance, which states "NO HAZARDOUS WASTE ACCEPTED", or equivalent. Safety and traffic control signs is placed at the entrance of the site and as needed throughout the facility to mark potential hazard areas and to direct waste hauling vehicles to the landfill disposal area.

Gates, natural and manmade barriers, and fencing control access to the site. Gates are located at each access point. Litter fence that also serves as a partial security fence has been constructed around the

perimeter of the active portion of the Mill Seat Landfill active landfilling area. Access to the site is primarily through the main entrance gate, off Brew Road. Other gates are typically used for construction or maintenance access.

Vehicular traffic into the site is controlled mainly by the configuration of the main access road as well as the location of the scale house.

6.0 FILL PROGRESSION

Waste placement shall be in accordance with part 360-2.17(b).

6.1 General Fill Progression

General fill progression will proceed using the area method of landfilling, whereby wastes are placed in horizontal lifts two feet thick, over an open area of the active portion of the landfill. Wastes are typically placed and compacted in a working face cell just large enough to accommodate a days worth of volume. The daily cells are typically constructed adjacent to each other in a horizontal plane, combining to create the individual waste lift no more than 10 feet in height. The advancing fill operations is usually placed at interior intermediate slopes of approximately 33%, from the edge of the constructed cell, closest to the downgradient side of the leachate collection system, as waste filling proceeds upward. As filling proceeds upward, the outboard slopes of the waste lifts will also be shaped to provide for the 33% final landfill slopes, with a minimum of 4% slope at the landfill plateau.

6.2 Cell Progression

Currently, Stages I, II and IIIA of the Landfill have been constructed and are accepting waste. Stage IIIB will be constructed next followed by Stage IV. Stage IIIB is permitted for approximately 13.1 acres and Stage IV approximately 21.1 acres.

6.3 Landfill Gas Collection

Landfill gas collection is an integral part of the landfilling process. Gas collection is accomplished with horizontal gas collection systems and vertical gas wells. The horizontal gas collector system consists of an oval loop of solid 6 inch HDPE pipe with perforated HDPE pipe running perpendicular to the long side of the oval. The first horizontal collector is generally placed over an entire cell when the cell height reaches approximately 40 feet. The next horizontal collector is placed when the waste reaches another 40 feet in height. The legs of the horizontal gas collection systems then daylight the side of the landfill where they are connected to the perimeter landfill gas header system. Once a cell is at final grade, vertical gas wells will be installed to collect and manage landfill gas during the post-closure period

7.0 WASTE AMOUNTS AND CHARACTERIZATION

This section describes the types of waste that will be received and the manner in which the waste will be managed. The Mill Seat Landfill has an approved design capacity of 1,945 tons per day. Only wastes permitted by Mill Seat's current NYSDEC Part 360 Permit and the Host Community Agreements.

7.1 Waste Receipt

Solid waste is received into the facility at the scale house. A general description of wastes that can be received is as follows:

- Municipal solid waste;
- Commercial waste;
- Industrial waste;
- Asbestos containing waste both friable and non-friable;
- Waste water treatment plant sludge

In addition there are several Beneficial Use Determination (BUD) materials that are used as road base materials and daily cover. This includes:

- Non-Hazardous Petroleum Contaminated Soil
- Construction and Demolition (C&D) materials
- Bottom Ash from Coal-fired Boilers
- Wood Chips
- Auto Shredder Fluff
- Bottom Ash / Fly Ash Mixture
- Foundry Sand
- Wastewater Treatment Plant Incinerator Ash
- Mixed Glass Cullet
- Solid Waste Incinerator Ash excavated from the Greater Rochester International Airport, provided it is used in an area that will receive waste the next day.

Wastes that will not be accepted at the site for direct landfilling are as follows:

- Waste identified and prohibited in Part 360-1.5(b).
- Any empty drum or container which has held hazardous waste and is not empty according to 40 CFR 261.7(a) (3); Containers of 5 gallons capacity or larger unless the ends have been cut off and the containers have been crushed. This does not apply to 30-gallon and 50-gallon drums of waste toner that can be accepted.
- Any infectious waste; however, regulated medical waste that has been treated and destroyed by a method approved by the NYSDOH may be disposed.
- Any liquids, sludges, or slurries less than 20% solids;
- Whole tires, unless the tires have been cut into at least two pieces by cutting around the circumference;

- Loads consisting exclusively of uncontaminated leaves, grass clippings, brush, branches, stumps, and tree sections, with the exception of debris that have been contaminated by excessive use of pesticides;
- Any wastes regulated by Part 364 unless the waste hauler possesses a valid Part 364 permit which specifies Mill Seat Landfill as a disposal site for such wastes.

7.2 Waste Placement

Landfilling will be performed within a given area of the site after existing daily or intermediate cover and existing vegetation have been stripped. Waste placement will then begin at a point of easiest access and then fan out across the cell. Refuse will be spread and compacted in 2-foot layers using trash compactors. It is anticipated that the waste will be compacted to an in-place density of 1,400-1,600 lb/yd^3. The daily lift height (consisting of several approximately 2-foot thick layers of waste) will be approximately 10 feet in thickness. A select layer of waste will be placed in a horizontal 5-10 foot lift over the entire base of the cell before beginning placement of the second (i.e., next higher) lift. Successive lifts will be constructed in a manner such that the maximum intermediate cover slope will be 33%. Final cover placement operations will begin as soon as practical after final grades have been achieved in a given area.

8.0 SOLID WASTE RECEIVING PROCESS

After entering the site, waste-hauling vehicles will be directed to the scale area where they will be visually monitored, weighed, and video (digital) recorded. The scale operator will determine if the waste load can be accepted and the hauler assessed the proper fees for waste disposal. If determined as acceptable, the vehicle will be directed to the appropriate area of the landfill for disposal of waste. Once at the working face, the hauler will be directed where to dispose of wastes.

8.1 Unauthorized Waste

In accordance with Part 360-2.17(q), one vehicle per week will be inspected for unauthorized waste. The load shall be spread at the working face. A record of the inspections shall be maintained at the site. In addition to the weekly random inspection, unauthorized waste entering the Mill Seat Landfill can be detected by visual observations at the scale house and working face.

Should a delivery of unauthorized waste be detected at the working face, the hauler of the material is required to immediately remove the unauthorized waste. If the hauler cannot be identified, the following steps are taken:

- The unauthorized material will be separated from other waste on the working face and information will be gathered to identify the waste and the generator (general composition, quantity, labeling, etc.);
- The District Manager, the NYSDEC, Monroe County Emergency Services and any other appropriate agencies will be notified as is deemed necessary;
- If necessary to protect the safety of on-site personnel, landfill operations will be suspended; and
- A licensed hazardous waste hauler or disposal company will be contacted to transport the waste to an approved treatment or disposal facility (within 90 days after discovery of the waste).

Site operations will not resume until clearance is obtained from the District Manager or Emergency Coordinator. All activities connected with the receipt of unauthorized waste will be recorded on the appropriate forms and filed at the landfill office and with NYSDEC.

8.2 Special Waste

The goal of the special waste program is to ensure that only non-hazardous wastes are received for disposal at Mill Seat Landfill. A waste is hazardous if it is listed in 40 CFR 261.31-261/33 or 6 NYCRR Part 371 or, if by its characteristics, it is determined to be hazardous. Part of the approval process is ensuring that documentation is provided that fully characterizes the waste. Due diligence must be performed to ensure no listed hazardous waste impacted the special waste.

When profiling a waste stream into Mill Seat Landfill, a WMNY Generator's Waste Profile Sheet must be filled out. All sections of the Generator's Waste Profile Sheet are typed or filled out in ink with detailed information and signed by an authorized representative for the generator. If someone

other than the generator is signing the profile, a letter of authorization from the generator must be provided. A copy of the Generator's Waste Profile Sheet is included in Appendix A.

All paperwork including analytical results, MSDS, site history and description describing the waste must be included with the profile. The information must be provided to WMNY prior to entering the site.

Analytical results must come from a laboratory certified by the New York State Department of Health for analysis of hazardous waste characteristics. All analytical reports must be signed by the lab and include the chain of custody report.

Once the completed package (Generator's Waste Profile, test results, MSDS, supplemental information, supporting letters, service agreement, etc.) is received by WMNY, a decision can be made on the acceptability of the waste within a two to three day time period.

To haul special waste, a hauler must possess a NYS Department of Environmental Conservation Part 364 Waste Transporter Permit. This permit must be in the vehicle at all times and available for inspection if requested. All loads must be tarped in order to be accepted into the facility. In addition, manifests are required for friable asbestos.

After the WMNY has approved the profile, the generator will be notified of the decision in writing along with any special conditions of disposal noted.

NYSDEC will be notified within 7 days for all special waste profiles approved for disposal at Mill Seat Landfill.

After the profile has been approved, the generator is required to contact the Mill Seat Landfill scale house at (585) 494-3000 to schedule waste delivery. Special handling may be required depending on waste type.

8.3 Asbestos Landfill Procedures

Friable asbestos means that the material can be easily crumbled under hand pressure and would likely emit or release fibers. This type of asbestos is heavily regulated by the USEPA and NYSDEC. Examples of friable asbestos are; pipe insulation and boiler wrap.

Conditions for hauling and disposal are:

- 24-hour notification to Mill Seat landfill.
- 2212 placarding on 4 sides of the container (DOT regulation).
- Class 9 Label on opposing 2 sides near the closure of container.
- Manifest requirements:
    - Full address of generator.
    - Emergency phone number in the event of a spill.
    - DOT shipping information must read: Asbestos, 9, NA2212, III, RQ
    - All information must be printed or typed.

  - Signatures where appropriate.
- A sign must be displayed when unloading at the landfill and must read: "Danger, Asbestos Dust Hazard. Cancer and Lung Disease Hazard Authorized Personnel Only"
- Drivers should wear respirators with asbestos filters.
- Material must be double bagged in bags and labeled, packaged, and transported in accordance with OSHA (1910-1001,1910-1200), DOT 49 CFR (172 & 173) and National Emission Standards for Asbestos NESHAPS (Subpart M). Each bag must have a label with the generator's name and address.
- Transporter must be trained in accordance with OSHA, DOT and NESHAPS.
- Disposed of in trench.
- Non-perforated tarp required.
- Must list Mill Seat Landfill on Waste Transporter permit.
- Material must be profiled.

Non-Friable asbestos is not a regulated substance, provided it cannot or does not become friable due to handling or off-loading at the landfill. All non-friable asbestos containing materials must be landfilled and not used as a Beneficial Use Determination (BUD) material such as daily cover.

Upon arrival at the working face, the operator or designated landfill personnel will direct the hauler to the selected disposal area away from the active face. The operator(s) and laborer with personal protective equipment should remain up wind of the disposal location and be sure to keep other haul vehicles away from the area until the load is buried.

The equipment operator shall direct the hauler to the excavated trench, swale or other designated area large enough to accept the load. While backing up to the trench, if the container door is open, the waste must be secured so that bags or drums do not fall out before reaching the designated area. The area should be such that it is perpendicular to prevailing winds and refuse should be pushed toward the windward side of the designated area. To minimize the amount of trash/cover required, the designated area should be kept as narrow as possible.

Dumping of the asbestos-containing load shall be done with care to reduce the potential for puncturing a container. The dumped load is not compacted, but should be immediately covered from the up wind side with refuse or soil. This procedure should be conducted very carefully with the intent to "bridge" the asbestos-containing load with refuse. At least 2 feet of refuse will be pushed over the load prior to passing over it with compaction equipment. Following burial, a minimum of six inches of cover material shall be placed over the disposal area. Do not run machinery over exposed asbestos.

After the asbestos has been unloaded, the designated landfill personnel signs the shipping paper as received and gives the hauler a copy. Another copy must be mailed by the landfill to the generator within 30 days.

The disposal location of asbestos-containing loads must be identified horizontally and vertically within the landfill. Disposal locations are to be recorded so that proper precautionary measures can be taken in the event the material required excavation. The landfill must generate a map of diagram indicating the location, depth, area and volume of waste. This may be accomplished with a GPS unit that can be used to record vertical and horizontal positioning of the asbestos disposal area. The GPS

information is then used to establish the location on a site map of the landfill. Other surveying techniques may also be used to accurately located the waste in the future.

Disposal will not take place within a minimum of 10 feet of the perimeter of the fill or within 15 feet of final contour elevations. Disposal shall be conducted away from the active face. Asbestos Containing Material shall not be placed in any roadway including access roads within an active cell.

The landfill must notify Federal or State Agency Administrator in writing at least 45 days prior to excavating or disturbing waste deposited and covered. If excavation begins on a date other then that on the original notice, notice of the new start date must be provided at least 10 working days before excavation begins. The notice must include the scheduled start and completion dates, procedures to control emission during excavation, storage, transport and ultimate disposal, and the location of any temporary storage site and final disposal site. The proper personal protective equipment for the operators and laborer includes head, respiratory, body, and foot protection.

Persons in charge of a vehicle or facility (landfill) from which a hazardous substance has been released in a quantity that is equal to or greater than its reportable quantity (RQ) must immediately notify the National Response Center (NCR). Friable asbestos equal to or greater than one (1) pound is a reportable quantity and a spill must be reported immediately.

The following procedure should be followed if a reportable quantity (RQ) of asbestos is released to the environment either while on the road or at the landfill. (This procedure must also be used for reporting oil spills or other hazardous substance spills greater than their RQ.) Failure to report a spill could result in those persons having knowledge of the release being subject to criminal penalties.

Initially, the spill should cautiously be contained with the nearby available equipment. The hauler should contact the dispatcher who should contact the emergency coordinator. The dispatcher, the safety officer or other supervisor should make the necessary phone calls. The dispatcher or whoever gets the first call must keep a record of the time all calls were made and other pertinent information. The truck driver must remain at the spill site. The following agencies need to be notified:

- National Response Center (NRC) (U.S. Coast Guard) 1-800-424-8802 or 1-202-267-2675.
- Department of Labor 1-518-457-1255.

The following information will be required:

1. Caller's name and company.
2. Company phone, address, city, county, state, and zip.
3. Identity of spiller.
4. Spiller's phone, address, city, county, state, and zip.
5. Spill date and time.
6. When discovered.
7. Personal Account.
8. Type of spill material.
9. Total quantity spiller/released (to the environment).
10. Source and cause of release.
11. Effected medium.

12. Injuries, fatalities, evacuations.
13. Response actions (clean up).
14. Notifications.
15. Other comments.

After providing this information, a case number and the name of the case officer will be assigned, which should be recorded. The National Response Center forwards the information to appropriate EPA regional offices.

9.0 COVER MATERIAL MANAGEMENT PLAN

9.1 Daily And Intermediate Cover

Mill Seat Landfill generally uses a daily cover of six inches (minimum) of on-site soil spread over all exposed refuse at the end of each operating day. The purpose of the daily cover is to control vectors, fires, odors and blowing litter at the site until intermediate and/or final covers are placed in accordance with Part 360 requirements. At the start of each work day, the previous day's daily cover is removed prior to placement of refuse to integrate the new waste with the previous day's waste to promote downward (rather than lateral) migration of leachate to the leachate collection system and to provide better compaction of refuse.

A minimum of 12-inches of compacted cover material (soil) must applied and maintained on all landfill surfaces where no additional waste has been or will be deposited within 30 calendar days. Coal ash blended with an equal-amount of' clean soil may be used as intermediate cover on inside slopes of the landfill.

9.2 Alternate Daily Cover

Approval has been granted for the beneficial use of each waste stream listed below as daily cover. The volume of approved BUD daily cover materials necessary to cover the entire working face must be available immediately adjacent to the working face at the end of each operating day.

- Non-Hazardous Petroleum Contaminated Soil
- Non-Hazardous Contaminated Soil
- Construction and Demolition (C&D) materials
- Bottom Ash from Coal-fired Boilers
- Wood Chips
- Auto Shredder Fluff
- Bottom Ash / Fly Ash Mixture
- Foundry Sand
- Wastewater Treatment Plant Incinerator Ash
- Mixed Glass Cullet
- Solid Waste Incinerator Ash excavated from the Greater Rochester International Airport, provided it is used in an area that will receive waste the next day

When these wastes are utilized beneficially as daily cover material, they are no longer considered solid waste upon their receipt at the landfill. The weight of each load shall be measured and reported to the NYSDEC as BUD daily cover material and categorized as to the specific solid waste that is being beneficially used.

With the exception of bottom ash, glass cullet and wood chips, these BUD daily cover materials shall be confined to within the areas of the landfill footprint and stored in a manner that minimizes the materials leaving the lined area either by tracking by vehicles or by wind deposition. Bottom ash, glass cullet and wood chips may be stored outside of the footprint provided that the storage areas are

outside any regulated wetland or buffer, runoff does reach the wetlands, and siltation control measures are installed around the storage area perimeter.

9.3 Final Cover

The final cover system will be consistent with Part 360-2.15(d). For slopes greater than 25%, the specific components are listed below in descending order:

- 6 inches of topsoil;
- 24-inch barrier protection layer, with the lower six inches reasonably free of stones;
- A geocomposite drainage layer, suitable for landfill cap construction, consisting of a 200-mil HDPE drainage net, with 6-oz/sy geotextile bonded on the top and bottom;
- 40-mil textured LLDPE geomembrane;
- 10 oz/sy geotextile;
- 12 inches of intermediate cover soil.

For final cover systems at slopes of less than 25%, an 18-inch low permeability (1×10^{-6} cm/sec) soil layer will be installed directly beneath the LLDPE geomembrane.

Generally, final cover will be placed over an area of the site during the construction season following attainment of final grades.

10.0 ENVIRONMENTAL MONITORING PLAN

The Environmental Monitoring Plan and Site Analytical Plan have been prepared in accordance with part 360-2.11. These documents are available in the Mill Seat Landfill administrative office library.

11.0 LEACHATE MANAGEMENT PLAN

This Section provides an overview of the practices and policies at Mill Seat Landfill for the collection, storage, removal, and treatment of leachate. Monitoring of the leachate collection and storage system is described in detail in the Environmental Monitoring Plan. Leachate management will be reviewed and updated as necessary to incorporate any new regulations, permit conditions, changes in operation and / or company policies regarding leachate management.

11.1 Leachate Collection System

Mill Seat Landfill was constructed with both a primary and secondary leachate collection system. The vast majority of the leachate will be collected in the primary collection system located on the primary composite liner. Four-inch HDPE leachate laterals will convey leachate from valleys in the base liner to either a perimeter manhole system or a central header depending on their location in the landfill. Upon penetration of the perimeter liner system, the leachate collection pipes become dual-walled pipes for leak detection purposes. The lateral pipes drain to a perimeter manhole. Cleanouts are also provided in each manhole for both the lateral pipe and the perimeter collector pipe. The dual walled pipes run through the dry manhole and to the next perimeter collector manhole for ultimate conveyance to one of two lift stations located north of the landfill.

Directly beneath the primary leachate collection pipes are secondary leachate collection pipes that convey leachate from the secondary drainage medium to a secondary perimeter leachate manhole and collector system. Dual walled pipes and cleanout provisions similar to the primary collector system are provided in the secondary system.

11.2 Leachate Conveyance System

The two primary leachate pump stations are equipped with dual submersible corrosion resistant pumps. The pump stations are equipped with high level alarms and a telemetry system with automatic telephone dialing capability. Their controls will include the use of level indicators in the storage tank to prevent overflow of the tank. The level indicator activates a telemetry system with automatic telephone dialer to notify the Operations Manager or designee at the 80% and 100% storage levels. At the 80% level, the leachate removal schedule must be modified to bring the tank level down. At the 100% level, the leachate pumps shut off and high tank level contingency measures take effect.

Near the two leachate pump stations, the secondary leachate collection system will include a small lift station with flow monitoring equipment before connection to the primary leachate pump station. The pump stations will operate automatically. They will be checked on a bi-weekly basis for leaks, unusual noises and excessive vibration. A full maintenance checkout will occur twice a year.

11.3 Leachate Storage Tanks

The pump stations convey leachate in a dual walled force main to a 1.5 million gallon glass lined steel storage tank. This tank is covered and adequately valved to allow leachate to be pumped into the tank or directly to the sewer if the tank begins to leak. The pumps fill the tank, where the

leachate is stored until discharged into the Monroe County sewer system's Mill Seat Landfill Pump Station or trucked off-site.

An earth dike and geosynthetic liner encompass the tank and provides slightly more than 1.6 million gallons of storage capacity to contain the entire contents of the tank if a major leak occurred. The tank is designed with an HDPE leakage containment and detection system and the entire tank foundation and containment area is lined with 60 mil HDPE. The tank liner has inspection ports to allow visual inspection.

The tanks are designed to drain by gravity to a leachate transfer loading facility where leachate is discharged into the Monroe county sewer system for ultimate treatment at the Monroe County Pure Waters District Van Lare Waste Water Treatment Plant. This discharge will be a preset volume, controlled by a valve and flow meter installed just prior to the discharge into the Mill Seat Pump Station. Monroe County Pure Waters sewer system operators will establish the allowable daily discharge rate and frequency based upon operational condition within the sewer system. In the event that the direct connection with the Monroe County sewer system is interrupted, Mill Seat landfill has the ability to contract with a third party hauler to remove leachate via tanker trucks to the Van Lare Treatment Plant. In the event that tanker trucks are used, valves and flexible hoses with quick disconnect couplings will be used for transferring the leachate from the storage tank. A gauge in the loading dock station displays the leachate level in the tank. The truck loading area consists of a sloped concrete pad designed to drain leachate spillage to a sump pit where it will be pumped back into the leachate storage tanks.

The storage tank overflow containment area is drained by pipes and a separate pump station, or ponded and pumped by a submersible pump located in the containment area drop inlet. For non-contaminated storm runoff, the submersible pump will be operated manually to discharge flows to a storm water basin adjacent to the maintenance building entrance road. If a leachate leak occurs from the storage tank or piping, such contaminated flow will be directly discharged to the Monroe County sewer system via manual operation of the drainage pipes and separate pump station. Runoff contaminated with leachate leakage will be directly discharged to the Monroe County sewer system or returned to the storage tank until laboratory analyses indicate that flows may be discharged to the storm water basin.

11.4 Leachate System Inspection

A weekly visual inspection shall be conducted on the non-perforated main leachate collection lines, force main and manholes and pump stations. The intent of the inspection will be to assess the potential location and extent of a liner leak, pipe blockage, or other problems. The use of perimeter access manholes will allow determination if a specific valley area is leaking leachate through the primary liner.

Bi-weekly inspections shall be completed for the primary and secondary leachate leak detection and removal systems. Pump stations shall be inspected weekly. Inspection logs shall be maintained at the site. At a minimum the logs must detail date, time, inspector, visual observations, problems, and corrective actions taken.

Due to the character of the leachate, care will be taken in entering all manholes. Confined-space entry procedures per OSHA guidelines will be employed at all times, including, but not limited to the use of the buddy system, blowers, oxygen level meters, safety harnesses, and winches, etc. All confined-space entry required operations will be subcontracted to non-WMNY personnel. Leachate lines will be cleaned out (rodded, snaked or hydraulically scraped) annually, or more frequently if routine inspection indicates that clogging of the system has occurred.

11.5 Leachate Disposal and Treatment

A stated previously, leachate will be transferred from the storage tank directly to the Monroe County sewer system for ultimate treatment at the Monroe County Pure Waters District Van Lare Waste Water Treatment Plant. As part of the contingency plan for alternate disposal, Mill Seat Landfill is able to contract with a third party hauler to remove leachate to Van Lare in the event the direct connection is interrupted. Included as part of the Contingency plan, the Landfill can also have leachate sent to other POTW's within the Monroe County Sewer System in the event that Van Lare cannot accept the leachate. Mill Seat maintains an annual Sewer Use Permit with Monroe County. Leachate will be monitored for compliance with the conditions of the Permit, as issued under the Monroe County Sewer Use Law.

11.6 Leachate System Maintenance

In the event that replacement, repair, or other construction related to the leachate management system is required, NYSDEC is to be notified with 24 hours, followed by written notification within seven (7) days. Corrective measures shall be implemented promptly. Copies of all engineering plans and specifications will be provided to the NYSDEC Solid Waste Division for review prior to commencement of construction activities on the leachate management system components.

The primary leachate collection and removal system shall be televised at least annually. Flushing shall be completed as necessary to maintain an unobstructed and free draining collection system. Flushing of the leachate collection pipes shall follow the same procedures that were determined to be successful during the leachate pipe-cleaning test witnessed by the Department in August 1991.

11.7 Leachate Recirculation

Mill Seat Landfill is permitted to recirculate leachate in Stage I and Stage II. Leachate recirculation may continue at the site with future cell and stage construction incorporating a horizontal leachate recirculation distribution system, as permitted.

12.0 GAS MONITORING PLAN

Mill Seat Landfill generates landfill gasses as part of ongoing biodegradation of wastes. The collection and control systems for landfill gas is regulated by Title V NSPS regulations, Part 360-2.17(f) and Part 208 air regulations to avoid hazards to health, safety, and property. These requirements are detailed in the Environmental Monitoring Plan.

12.1 Landfill Gas Collection System

The major components of the gas collection system are vertical gas extraction wells and horizontal collectors, headered to a main gas line on the surface of the landfill. The system extends across the entire site. As the landfill expands horizontal and vertical collectors will be installed every 40-60 feet of vertical landfill development along with the associated piping and valves.

12.2 Landfill Gas Control

Open flare units manage collected landfill gas. Flare units are visually monitored daily for proper operations. In addition, the flare operations are tied into the site telemetry system that continuously monitors temperature and gas flow at the flare.

12.3 Landfill Gas Monitoring

Each wellhead or horizontal collector is monitored for pressure, oxygen/nitrogen, temperature, flow and percent methane in accordance with Part 208 requirements. The details of the monitoring program are presented in the Landfill's Environmental Monitoring Plan.

13.0 WINTER AND INCLEMENT WEATHER OPERATIONS

The following procedures will be implemented in the event of unusual weather conditions:

Winter - Accumulations of snow will be plowed from the working area prior to each day's refuse placement activities. Snow will be plowed with a variety of equipment including bulldozers, road grader, front-end loader, trash compactor and plow truck. Should visibility become impaired due to drifting and blowing snow the District Manager has the authority to close the facility.

High Winds - If winds become excessive, the landfill operation will be moved to a more sheltered area of the landfill (downwind side). Operating personnel will build a temporary berm on the upwind side of the working area and will push waste against the berm for better compaction. At the end of the day, operators will push the berm soil over the working area for use as daily cover. Loads may be screened and loose loads that would contribute to blowing litter conditions held until the wind conditions subside. In case of severe winds, the District Manager must decide whether or not to temporarily shut down. Customers will be notified and the facility will be temporarily closed.

Wet Weather - If access roads become muddy due to wet weather, gravel and frequent grading of road surfaces will be used prevent rutting, to control drainage, and to improve road conditions. In the event of an electrical storm, all personnel will take shelter and operations will be suspended until the storm subsides. Wood chips may used as a stabilizer/bulking agent on the muddy roads to help make the roads more passable.

14.0 FIRST LIFT PLACEMENT PROCEDURES

Special precautions must be taken during placement of the first lift of waste above the liner and leachate collection system. The first lift of waste will consist of 5 feet of select waste. The initial loads of waste are placed in the cell by trucks backing to the edge of the cell berm and unloading waste inside the cell. The location of the initial access way into the cell will depend in part on fill progression in adjacent cells. For example, if an adjacent cell is sufficiently filled so that access is obtainable from the adjacent cell then waste trucks may enter the new cell from this location. A low ground pressure bulldozer (Caterpillar D-6 LGP) will then push the select refuse over the primary leachate collection layer. This process will continue until a minimum 5-foot thickness of select refuse has been placed on the primary leachate collection layer. Next, cover material will be placed and compacted on the select refuse layer to allow waste vehicles to enter into the cell on top of the waste and to turn around before leaving the cell. The leading edge of the select waste lift is usually covered with a reusable tarp. During placement of the select refuse layer, a laborer will be stationed at the bottom of the lift to observe the placement of this waste. If objects are spotted that could possibly damage the liner system, they will be removed and disposed of in a manner that will not jeopardize the liner system. Large objects (i.e., pipe, posts, heavy metal items, etc.) will be sorted out and recycled.

Additional structural fill underlain by geotextile may be placed on top of the berm to help protect the liner system from damage. Structural fill will be placed on top of the liner to a minimum depth of 2 feet. This surface will be the driving surface for vehicles disposing of waste in the cell. The structural fill will extend into the cell 5 feet beyond the limit of waste placement. Crushed stone can be placed on top of the structural fill for additional support. A drainage pipe may be necessary in the perimeter drainage ditch to provide proper surface water drainage beneath this cell access location; the pipe and the access road will be removed after the cell access point is no longer needed.

15.0 FIRE PREVENTION PLAN

Fire-related situations can occur at a sanitary landfill including surface fires resulting from the delivery of a hot load, ignition/muffler spark or other causes; and rapid subsurface oxidation.

In the event of a surface fire, the equipment operator will only become involved in the incipient stage of the fire and to the extent that his/her training allows. The operator will isolate the effected materials and spread the burning waste in a thin layer over a portion of the landfill surface covered with intermediate cover. Water or a thin layer of soil may be applied to the burning mass to control flames. A soil berm will be constructed around the material to control run-off of water used to extinguish the fire and to prevent it from entering surface water. The material will be allowed to cool for a sufficient period of time prior to replacement in the working area of the landfill.

The local fire department will be called for assistance in those situations where a fire progresses beyond the incipient stage. The equipment operator will attempt to isolate the burning waste and keep the fire from spreading. However, the operator is not the primary responder to this type of fire and care must be taken to stay out of harms way.

Rapid subsurface oxidation in well-managed landfills is rare, but can occur from a number of causes. Ignition and propagation of rapid subsurface oxidation are complex and a function of many factors (e.g., waste composition, moisture level, available oxygen, ambient pressure in the area of oxidation). Dependent upon the nature, depth and location of the rapid subsurface oxidation, standard engineering practices have been developed for locating (e.g., temperature probe inserts, boring, etc.) and for terminating the oxidation, including excavation, smothering with an inert gas or water injection. Adequate temperature monitoring techniques and experience exist, including remote sensing infrared thermography techniques, to determine if the oxidation has been terminated. In the unlikely event of such an occurrence, specialists from within WMNY and consulting firms will be engaged to reconcile the condition to minimize or negate any environmental effects.

Fires could occur at other facilities within the Mill Seat Landfill, such as office or maintenance buildings, equipment, etc. Again, Mill Seat Landfill personnel will only be involved in the incipient stages of the fire. In the event of this type of fire, the local fire departments will be immediately called for assistance.

An Emergency Management Plan/Contingency Plan is maintained on-site at all times, and on-site personnel are trained in the use of portable fire extinguishers. The fire/Emergency numbers are posted at each telephone in the facility. Fire hydrants surround the perimeter roadway and are available for the administration and maintenance areas.

16.0 RECORDKEEPING AND ANNUAL REPORT

As previously indicated, the landfill's Operations Manager or designate will maintain a daily log of the landfill operations. These records will be used to develop an annual report of the landfill operations as required by Part 360. This report will be prepared prior to March 1 for the previous calendar year activities and submitted to the DEC Region 8 office. The report will include a summary of the quantity of waste disposed at the landfill by type (i.e. municipal solid waste, sludge, ash, special industrial or other waste, etc.). Also included will be the limits of fill progression by grid points and lift elevation. The report will include an estimate based on a field survey of the volume of capacity used during the subsequent year together with an estimate of the remaining volume (based on the approved final grading plan) and site life of the facility.

The report will also summarize the water and leachate quality data collected throughout the year. The report will summarize by month, the amount of leachate treated off-site and the identification of the receiving sewage treatment plant. The report will include an evaluation of the primary liner system performance by reporting the monthly quantities of leachate collected in the secondary leachate collection system. This will include specific analysis of the pollutiona1 strength of the secondary leachate to help differentiate construction waters from actual leachate.

Finally, the report will include a summary of any changes to the approved plans, reports, or permit conditions including adequate background data justifying such changes.

Quarterly reports of ground and surface water quality will be submitted to DEC. The scopes of those reports are described further in the Environmental Monitoring Plan.

Appendix A
Generator's Waste Profile Sheet