Facility Manual

Chaffee Facility Area 7/8 Development

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PRESENTED TO

Waste Management of New York
10860 Olean Road
Sardinia, New York 14030

SUBMITTED BY

Cornerstone Engineering and Geology, PLLC
3136 S. Winton Road, Suite 303
Rochester, New York 14623

P +1.877.294.9070
F +1.877.845.1456
cornerstoneeg.com

REPORT CERTIFICATION

The material and data in this report were prepared under the supervision and direction of the undersigned.

Robert A. Holmes, P.E.
Client Manager

1/22/24
Date

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1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The Chaffee Facility is located in the Town of Sardinia, Erie County, New York. The Chaffee Facility (the Facility) has an address of 10860 Olean Road, Chaffee, New York 14030-9799. The Facility operates under a New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 360 Solid Waste Management Facility Operation Permit No. 9-1462-00001/00006 issued on August 9, 2017. The Facility is currently owned and operated by Waste Management of New York, LLC (WMNY). WMNY has an address of 1001 Fannin Street 4000, Houston, Texas 77002. A Facility site plan is presented in Figure 1-1. Currently, the Facility is permitted to accept up to 180,000 tons of waste per quarter, with an annual permitted maximum of 600,000 tons.

Landfilling operations began at the site in 1958. The current facility contains the 51 acre Closed Landfill, 57.3-acre Western Landfill, and the more recently permitted 13.7-acre Valley Fill area that connects the Western Landfill to the Closed Landfill. The 13.7 acres of the Valley Fill includes some overlap area with the Closed Landfill and existing lined areas of the Western Landfill. The Area 7/8 Development, which has a lined footprint of 29.1 acres immediately south of the Western Landfill, includes 5.0 acres of liner over the Closed Landfill. WMNY currently owns over 700 acres of property in Sardinia, and the Chaffee Facility is located on 500 contiguous acres.

1.2 PURPOSE AND SCOPE

To continue operations at the Chaffee Facility, WMNY has initiated working with the NYSDEC on a Part 360 Permit Modification Application for the Area 7/8 Development. The submittal of the Part 360 application by WMNY includes engineering documents and plans in order to satisfy Title 6 NYCRR Part 363-4, as well as the general requirements of Part 360. This Facility Manual which is part of the application was prepared in order to meet the conditions of Part 360-16(c)(4) and Part 363-4.6.

The Facility Manual provides a guide to day-to-day operations at the Chaffee Facility, and how it will progress toward its point of final closure while meeting regulatory operational and reporting requirements during this process. The Facility Manual includes information on landfilling progression, cover systems, waste acceptance policies, emergency policies, and other areas that govern how the Facility is operated. Environmental monitoring and reporting requirements required by regulation are addressed in a separate stand-alone Environmental Monitoring Plan (EMP). Cross-references to related permitting documentation, such as Engineering Plans, may be included. Permit related records are currently maintained at the office location on-site at the address listed above. If permit-related records are desired, Chaffee personnel can be contacted during operational hours.

1.3 FACILITY OPERATIONS

The Facility is a private solid waste management facility that accepts waste from both private and public sources. The landfill includes areas which have been closed (Closed Landfill) in addition to the current active landfill areas (Western & Valley Fill) and proposed landfill areas (Area 7/8 Development) that are operated in accordance with current 6NYCRR Part 360 regulations. In addition to the landfill the Facility contains the following operations:

- Material Recycling/Transfer Facility – The recycling/transfer building is a three-story concrete steel building with an office wing. The Facility accepts recyclables from both Town and private waste collection vehicles and is designed to accommodate the sorting, storage, and shipping of recyclables. The building is also used to store and transfer recyclables to other facilities. The Facility is separately permitted and operated from the landfill and separate operating plans are maintained for that facility.

- Landfill Gas to Energy (LFGTE) Facility – The operating LFGTE facility is located toward the center of the Facility. The power production plant is operated independently from the landfill and is not discussed in detail within this plan. Separate operating plans are maintained for that facility. Briefly, the power production plant uses landfill gas to generate electricity in lieu of combusting the landfill gas in a flare.
- Leachate Storage Tanks and Leachate Loadout Building – The Facility contains two leachate storage tanks with a combined storage volume of 810,000 gallons and a leachate loadout building that can be used to load up leachate for disposal at the Buffalo Sewer Authority wastewater treatment plant (WWTP), the Jamestown WWTP or the Steuben County, Bath POTW (or other approved disposal location) 7 days a week.
- Roll-off Storage Area: Located north of the scale house, the roll-off storage area allows WMNY haulers to deposit containers at the landfill before, after, and during operational hours to help the Operations Manager control waste disposal at the working face. Further information is available in Section 13.0 of this manual.
- Support Facilities – The Facility also contains a facility office, a scale house and two vehicle scales for the weighing of inbound and outbound waste disposal vehicles in order to assess disposal fees, and an equipment maintenance/garage building utilized for the repair and preventative maintenance of the landfill equipment and support vehicles. Additionally, an equipment wash bay, storage building and welding shop are present. The majority of these facilities are toward the eastern end of the landfill property.

Facility Traffic Patterns are displayed on Figures 1-2 (existing) and Figure 1-3 (Area 7/8 Development).

2.0 SUSTAINABILITY PLAN

As required by 6 NYCRR Part 363-4.6, the Facility Manual is required to describe the Sustainability Plan for the Chaffee Facility. More specifically the plan is required to describe how the Facility has been designed and operated in a manner that conserves and sustains natural resources.

The Chaffee Facility utilizes numerous practices which help to lessen its impact on the environment and lessen the need to use natural resources. The Facility is permitted to use some crushed C&D materials as alternative landfill cover material. This practice helps reduce the need for stripping of local soils to be used as cover materials and simultaneously preserves air space in the landfill by making use of materials that would otherwise be landfilled and then covered with soils. In addition, non-hazardous contaminated soils, foundry sands and other alternative operating covers (approved on a case-by-case basis by the NYSDEC) are used, which also preserves natural soil materials. The potential use of temporary synthetic materials as operating cover (controlling litter, odors, and vectors) also preserves air space. More information on these alternative cover materials can be found in Section 6.0.

The use of alternative cover materials is not the only sustainable aspect of the cover system. The landfill cover system enhances the collection of landfill gas (LFG), reducing greenhouse gas emissions from landfilled waste. Much of the LFG collected by the Facility is combusted and converted to electricity at the separately owned and operated LFGTE facility. Remaining LFG is flared off to lessen potential greenhouse effects.

The Facility hosts a residential recyclables center, which can accept single stream recyclables and cardboard/ paperboard products. The promotion of local recycling conserves airspace at the facility.

The Chaffee Facility not only operates using different methodologies to improve sustainability and lengthen the life of the landfill but has also provided environmental benefits beyond just providing disposal capacity to the local community. The vertical footprint of the landfill will increase and the horizontal footprint will slightly increase, but the net benefits of this development are considerable when compared to the alternative of opening a new facility or potentially shipping waste a long distance.

Without the Area 7/8 Development, wastes generated by customers currently served by the Chaffee Facility may need to be disposed of at a disposal facility outside of the current service area. No other landfills or other solid waste disposal facilities within the service area have the permitted capacity to accept the permitted annual waste tonnage disposed of at the Chaffee Facility (600,000 tons per year). The closest landfills, the Chautauqua Landfill, and Modern Landfill, could not absorb the permitted waste tonnage from the Chaffee landfill. With no local landfill or other waste disposal alternative, continued disposal for the service area would involve receipt of waste at local transfer stations and the transfer of that waste tonnage to other commercial landfills in New York, or out-of-state. The resulting consumption of natural resources (i.e., fuel) and additional air emissions from the trucking (primarily greenhouses gases) would be significant.

3.0 POST CONSTRUCTION CARE PLAN

The Chaffee Facility has procedures in place to care for newly constructed filling areas. A concern for newly constructed liners is that of frost action on the liner, which can damage the clay component of a composite liner system that is still exposed during the winter months. Another concern is the degradation of drainage layers from sediment transported into the liner area by run-on. Lastly, the initial layer of waste must be carefully selected to avoid potential damage to the liner from large or sharp objects. This layer, called Select Waste, is chosen and spread according to the procedures outlined in Section 5.2.

Areas of the landfill cell that have not received the initial lift of Select Waste may be subject to frost action of the liner system. Frost action has no effect on the geosynthetic layers of the liner system such as the geomembrane, and GCL materials; however, the secondary low-permeability clay layer can be affected. It is anticipated that some portions of the baseliner may be exposed during periods when ambient temperatures fall below freezing.

If construction cannot be completed such that a clay surface would be exposed over the winter, the clay liner surface will be sloped to drain surface water and rolled with a smooth drum roller to enhance its ability to shed water. A topographic survey will be completed upon completion of grading activities. Additionally, a sacrificial/protective layer of fill will be placed over the clay liner. This lift will be compacted to a firm condition but will not be tested.

At the start of construction in the following spring, the sacrificial layer will be removed and the clay liner surface evaluated. In place density tests will be made on the clay liner surface. The test results will be compared to results of tests made prior to winter shutdown, to assess the effect of winter conditions on the clay liner. If test data indicate the clay liner has been affected, the contractor will be instructed to remove the uppermost lift and the in place density test routine described above will be repeated. This evaluation process will continue for each lift until the test data indicate that the winter effects no longer exist at that depth.

The clay liner will then be reworked and recompacted to the depth necessary so that results of in place density tests meet the project requirements.

During and after construction the Contractor for the project will be responsible for protecting the granular drainage layers from degrading. This includes protection of the granular drainage layer from contamination by fine-grained soil or sediment resulting from rainfall runoff. The methods employed may consist of stormwater run-on management or installation of sacrificial geotextile or geomembrane protective barriers. If stone becomes contaminated with soil or sediment, the Contractor will replace the stone to the QA/QC Engineer's satisfaction.

Other than assuring against impacts to the liner from frost action and the drainage layer from degradation prior to waste placement, no further post-construction care is required for the Facility.

4.0 WASTE CONTROL PLAN

4.1 WASTE AMOUNTS AND CHARACTERIZATION

The maximum quantity which can be accepted in a year is 600,000 tons of solid waste. The quarterly waste receipts must not exceed 180,000 tons per quarter for any one quarter ending March 31, June 30, September 30 and December 31. The facility can also use Alternative Operating Cover (AOC) up to a limit of 20 percent of the total annual amount of solid waste disposed of in the landfill and beneficial use (BUD) up to a limit of 10 percent of the total annual amount of solid waste disposed of in the landfill unless otherwise approved by the NYSDEC. Therefore, the Chaffee Facility could theoretically accept 120,000 tons of AOC and 60,000 tons of BUD annually in addition to the 600,000 tons per year of solid waste. Both AOC and BUD materials require NYSDEC approval on a case by case basis before being used in the landfill.

Waste will originate from the current service area, which covers most of New York State, with the majority of the waste coming from within Erie County. Recent waste origin (Planning unit, County or Municipality) can be seen in Table 4-1. It should be noted that future waste could originate from any Planning Units, Counties, and Municipalities located within the service area.

As outlined in the facility permit, the wastes accepted at the landfill consist of municipal solid waste (combined household, commercial and institutional waste materials) asbestos waste, nonhazardous industrial and commercial solid wastes, construction and demolition (C&D) debris, contaminated soil waste, sludge waste, as well as liquids including waste containing free liquids, and waste with a solid content less than 20% may be received for solidification and disposal in the landfill provided that the following precautions and practices are observed:

- Non-hazardous industrial waste, friable asbestos waste, contaminated soil waste, sludge waste, liquids, waste containing free liquids, waste with a solids content less than 20% and solid waste incinerator ash may be received only upon written acceptance from the NYSDEC Regional Materials Management Engineer (NYSDEC RMME) except those waste streams that less than 100 tons per year and virgin petroleum contaminated soils. Those waste streams may be received by the permittee upon review and written approval of the permittee, provided the permittee maintains verification that the waste is nonhazardous and meet all landfill disposal criteria.
- All requests for acceptance shall be submitted on form 47-19-7, Application for Disposal of any Industrial Waste Stream or other equivalent waste profile form approved by the RMME. See Appendix A.
- All Waste Approvals Issued by the RMME, the Monitor and/or the Permittee shall be for a time period not to exceed 3 years.

4.2 SPECIAL WASTE

The Chaffee Facility provides disposal services for Special Waste customers primarily in New York. One customer may have a number of different special waste streams. Examples of special waste streams include; grinding sludge from a manufacturing process, incinerator ash from a hospital, and outdated or off-spec products from a pharmaceutical manufacturer. Approximately 10 to 20 percent of the total volume at the Chaffee Facility is identified as special waste. Each special waste stream is documented and appropriately managed according to its individual Special Waste Management Decision.

The goal of the Special Waste Program is to ensure that only non-hazardous wastes are received for disposal at the Chaffee Facility. A waste is hazardous if it is listed in 40 CFR 261.31-261.3 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.

When profiling a Special Waste stream into the Chaffee Facility, a Generator's Waste Profile (see example in Appendix A) must be completed. This document can be obtained from the facility or by contacting the WMNY Technical Service Center (TSC). Each section of the Generator Profile is completed with detailed information and signed by an authorized representative of the generator. If someone other than the generator is signing the profile, a letter of authorization from the generator must be provided or Authorized Agent certification box on the profile must be checked.

Paperwork including analytical test results, Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS), site history and description describing the waste along with the profile must be included with the profile. The information is then sent to the Special Waste Approval Person at Waste Management, WNY Industrial Sales, Customer Service/Waste Approvals, 1550 Balmer Road, Model City, NY 14107.

Analytical test results, if required, must come from a laboratory certified by the New York State Department of Health for analysis. 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/SDS, supplemental information, supporting letters, service agreement, etc.) is received by the Special Waste Approval Person, a decision can be made on the acceptability of the waste within a two to three-day time period. The NYSDEC must approve all wastes for solidification, non-soils for beneficial reuse (AOC, roadbase or solidification media), and all drummed waste.

A hauler must possess a NYS Department of Environmental Conservation Waste Transporter Permit to haul industrial processed waste or special waste. This permit must be in the vehicle and available for inspection, if requested. Loads must be tarped in order to be accepted into the facility. In addition, manifests are required for friable asbestos wastes. Each special waste stream is documented and appropriately managed according to its individual Special Waste Management Decision.

4.2.1 State and Local Regulatory Requirements

The following New York State regulations govern the management of special waste handled by the Chaffee Facility; 6 NYCRR Part 360 Solid Waste Facility Regulations.

- 6 NYCRR Part 364 Transport of Waste
- 6 NYCRR Part 703 Groundwater Standards
- 6 NYCRR Part 370-373 Relating to Identifying Standards for Hazardous Wastes

These regulations are followed in conjunction with the Special Waste program. The additional procedures followed in this plan are to ensure compliance with the above referenced regulations. Prior to the site's acceptance of an industrial/commercial waste stream, as defined in 6 NYCRR Part 364-1.2(e), necessary permits must be secured and approved.

4.2.2 Incinerator Ash

Incinerator ash from the incineration of non-hazardous municipal, commercial, or industrial solid waste can be accepted at the landfill if the ash is tested and shown to be non-hazardous. Incinerator ash is approved in accordance with the Special Waste approval process described in this Manual and accepted by the NYSDEC.

4.2.3 Drums & Tanks

Drum and tank disposal at the landfill will be allowed as described here. The drums shall be empty as described by the RCRA definition stated in 40 CFR 261.7 with the lids off. Closed drums and full or partially full drums can be disposed of in the landfill subject to inspection by the NYSDEC RMME. The contents of the drums will be verified with the generator prior to opening to ensure that proper safety precautions are taken. These drums will

then be opened and inspected by the NYSDEC RMME, and if acceptable they will be disposed of in the landfill. If a generator plans on disposing of several similar drums over a period of time, the NYSDEC may allow the site to perform inspections of the drums.

Acceptance of tanks for disposal will be allowed if: the tanks are empty according to the RCRA definition referenced above; and each end of the tank is removed to allow for the tank to be crushed flat upon placement in the landfill.

4.2.4 Mercury Containing Products

The Chaffee Facility does not accept mercury-added consumer products or mercury-added thermostats. A waste load which is observed to contain mercury-added products will not be accepted if the mercury-added products cannot be removed.

4.2.5 Alternative Operating Cover Material

Please refer to Section 6.1 for further details on the acceptance, storage, and other procedures for Alternative Operating Cover (AOC) materials.

4.2.6 Liquid Waste & Sludges

Liquid wastes and sludges with less than 20 percent solid content or free moisture may be acceptable at the Chaffee Facility. Wastewater treatment plant sludge must be stabilized by the generator in accordance with the Criteria for Sludge Stabilization for Disposal in New York State (DSH-SW-03-14), established September 24, 2003 (revised October 1, 2012) by the NYSDEC. Liquid wastes and applicable sludges can be prepared for direct disposal at the active face via the permitted liquid solidification process at the Site.

At the working face, the sludge will be mixed with other refuse during spreading and compaction at the working face or placed into a pit excavated into the previous lift of waste. If sludge is placed in a pit excavated in solid waste, no mixing will occur. Odors should be reported to the operations manager to determine if action must be taken.

WMNY provides a disposal option for generators of liquid waste by operating a solidification process at the Chaffee Facility. Operation of the solidification process is intended to directly address Part 363-7.1(i) and Special Condition 7 of the current Part 360 Permit, which prohibit the disposal of wastes containing free liquids within the landfill. Authorized wastes, which contain free liquids, are solidified with an appropriate absorbent material prior to disposal in the active area of the landfill.

The solidification process is operated as an integrated component of the existing permitted solid waste management activities at the facility. The solidification process is operated in conjunction with on-going operation of the landfill. Existing facilities and controls (site controls, staffing and supervision, and the waste control program) apply to the solidification process.

4.2.6.1 Solidification Process Area

The location of the solidification process area will be within the constructed landfill footprint and adjacent to the active disposal area. This location can change as the landfill is being filled, constructed and capped.

The constructed and future landfill cells are double lined in accordance with 6 NYCRR Part 360 requirements. Therefore, since the solidification process area is contained within the lined landfill, double containment of the mixing system will not be required.

Access to the liquid solidification process area at the Chaffee Facility is the same as access to the active landfill areas, as described in Section 4.1 of this Facility Manual. In addition, the liquid solidification process only occurs during the normal landfill operating hours.

4.2.6.2 Liquid Solidification Mixing System

The liquid solidification-mixing system consists of four steel mixing vessels, each with a maximum capacity of approximately 6,300 gallons, and a total maximum system capacity of 25,200 gallons. Each mixing vessel is approximately 8 feet wide by 20 feet long by 7 feet deep and is capable of containing the liquid waste as it is being mixed with the absorbent material. The mixing vessels are buried and backfilled into the landfill to provide vessel stability during mixing operations. Safety fencing and barriers are placed around the mixing vessels to provide a physical barrier to prevent persons from falling into the mixing vessels.

The area surrounding the mixing vessels is compacted to allow equipment to operate on the sides of the mixing vessels. The compacted areas are sloped toward the mixing vessels to facilitate drainage of spilled liquids back into the mixing vessels. of the site water truck is used to rinse waste containers, if necessary, prior to leaving the site. The area consists of a waste unloading and loading area, a mixing area and an absorbent material stockpile area.

4.2.6.3 Incoming Materials

Waste Types and Characterization

The Chaffee Facility accepts non-hazardous wastes containing free liquids that are amenable to efficient solidification with available bulking agents and which do not pose a safety or health hazard to operating personnel. The facility's waste control plan is used to screen candidate wastes against these two basic acceptance criteria. In screening candidate wastes for possible acceptance, the facility's Special Waste Program as described in this section will, for example, evaluate the waste's possible reactivity (reactive sulfides and cyanides, compatibility with solidification agents or prior waste residuals, etc.) and potential emissions (excessive solvent levels, for example) that may affect worker health and safety. Specific limitations for wastes to be received for liquid solidification include the following:

- Wastes with a pH less than 4 or greater than 11 will not be accepted,
- Wastes that are organic solvent-based products will not be accepted,
- Wastes that are pure petroleum products, such as off-specification fuels or heating oils, will not be accepted, and
- Wastes that do not meet the above screening criteria will not be accepted.

Typical wastes that will be accepted for solidification at the Chaffee Facility include:

- Sludges of various types, such as oil/water separator sludge, grit trap cleanings and carwash sludge,
- Off-specification commercial products such as soap, vinegar, liquid drinks and latex paint,
- Water from installation of soil borings,
- Flocculent waste water, and
- Food wastes, including off-specification bottled beverages, sauces and soups.

Special wastes, which are profiled and approved by the Chaffee Facility for acceptance to the liquid solidification process, will be submitted to the NYSDEC for review and approval.

Waste Quantities

Wastes accepted by the facility are ultimately disposed of in the active landfill, following solidification. The quantity (by weight) of the liquid waste stream is recorded during the initial inbound receipt control process, prior to solidification. This inbound liquid waste weight is tracked and recorded against the existing approved design

capacity (600,000 tons per year) for active landfilling. Absorbent waste materials used in the liquid solidification process will also be tracked and recorded.

Waste Control Program

The liquid waste stream is integrated into the Chaffee Facility's Waste Control Program. This Waste Control Program includes three primary methods for inbound waste monitoring: pre- acceptance waste screening measures, quality control measures for waste load acceptance and periodic, detailed inspections of inbound waste loads. These three components, as they are applied to the facility's waste stream, are discussed in detail in Section 4.3 of this Facility Manual. Additional details regarding liquid wastes are discussed below.

Section 5.4 of this Facility Manual indicates that waste streams with free liquid are not accepted for disposal, though as discussed in this section, they may be approved for disposal through the liquid solidification process.

Liquid wastes will most commonly be delivered to the facility in tankers, small vacuum trucks, as well as in sealed totes and drums. For delivery of the waste load to the site, the waste vehicle driver will enter the site through the existing entrance and proceed onto the scale for weighing and inbound processing. Inbound waste loads will be weighed; drum tare weights for empty drums returned to the generator will be reconciled for recording of actual waste weight, etc.

Concurrent with weighing, the vehicle driver will present shipping documentation (manifest) to scale house personnel. The personnel will review the shipping papers for accuracy, including review against the approved waste profile, and inspect the waste load to verify the quantities and types of waste listed on the manifest and profile. Scale house personnel will check if:

- The volume of the waste (bulk liquid weight, number of drums, etc.) agrees with the volume on the accompanying manifest.
- Shipping containers are in acceptable condition (i.e. container integrity, labels or markings are complete and accurate, etc.), and
- The waste's appearance matches the waste's physical description as described on the profile and as exhibited by previous shipments.

In the event of an inbound discrepancy, the waste generator is contacted for appropriate resolution. The waste load is returned or rejected if the discrepancy cannot be correctly resolved in a reasonable amount of time. The waste hauler will be instructed to contact the generator for further instructions, in the event of load rejection. The generator will also be immediately notified directly by WMNY in the event of load rejection.

In the event that the waste load is approved for acceptance, the shipment will be directed to the liquid solidification process area for unloading. Landfill operators will be notified such that they are available to direct and assist the vehicle driver in unloading of the waste; the operators will be concurrently notified/reminded by the scale house personnel of special handling requirements concerning unloading, solidification or disposal of the waste, as necessary.

A landfill operator monitors waste unloading. During the unloading process, the operator observes the waste load to determine if:

- The waste load substantively differs visually from the description contained on the profile or from previous loads of the same waste stream, and
- The load exhibits an odor, which is noticeably different or stronger than the odor described on the profile or exhibited by previous shipments.

If actual or potential discrepancies are determined, the operator will notify the Scale Operator of the discrepancy who will notify the Operations Manager and Special Waste Approvals Person for additional guidance and instruction.

In the event that unauthorized wastes are received, the material will be managed in accordance with the procedures outlined in Section 4.3. Due to the nature of liquid waste, random load inspections are not conducted in accordance with the Waste Control Program (i.e. dumping of a designated load in the landfill active area for detailed inspection). Instead, a facility operator directly monitors waste loads delivered to the facility during the unloading and mixing process.

4.2.6.4 Equipment

The equipment used in the liquid solidification process is both mobile and stationary equipment. The typical equipment will include:

- Steel mixing vessels (described in Section 4.2.6.2),
- An excavator to mix the waste loads during solidification and to load-out the solidified material,
- Off road dump trucks to transport the solidified waste material to the daily active landfill area.

4.2.6.5 Personnel Staffing and Training

The same management and personnel currently working at the Chaffee Facility operate the liquid solidification process. Employee safety and training is performed in accordance with the current facility programs as well as with the comprehensive Corporate Safety and Health Program. The Chaffee Facility District Manager has ultimate responsibility and authority for ensuring that the liquid solidification process is adequately staffed with trained personnel.

At least one of the current landfill operators is trained in the operations of the liquid solidification process. This operator will only be assigned to the liquid solidification process area on days when liquids are being solidified. The operator's duties will include:

- Directing and monitoring unloading of inbound waste loads,
- Visually inspecting drums and totes to ensure liquid waste is removed,
- Monitoring of waste loads during unloading and processing to verify that the waste load is consistent with the pre-acceptance characterization,
- Placement of absorbent material into the mixing vessel,
- Mixing the waste load with the absorbent material,
- Ensuring through visual inspection that the waste has been sufficiently solidified and that no free liquids are present,
- Load-out of the solidified material into the off-road dump trucks for transport to the active landfill area,
- Empty drums and totes not being returned to the waste generator will be crushed and transported to the active landfill area, and
- Routine policing of the facility for nuisance conditions, implementation of good housekeeping procedures, etc.

The assigned landfill operator will be supported as necessary by the remaining on-site work force.

Personnel associated with operation of the liquid solidification process receive appropriate initial and on-going training to ensure that they can adequately and safely perform their work duties. Training is provided through specific facility training sessions and/or within the context of routine safety meetings. Personnel training sessions are documented.

4.2.6.6 Waste Solidification Procedures

Following completion of the inbound scale and inspection process, loads are directed to the facility for unloading. In most cases, the liquid waste is discharged directly from the inbound truck into the mixing vessels. The unloading process can also include rinsing of the inbound tanker or container, as necessary. The resulting rinse water will be directed into the mixing vessels.

Drums and totes that are not being returned to the waste generator will be visually inspected to ensure that the containers are empty. The empty containers will be placed adjacent to the mixing vessels until liquid solidification is complete. The containers will then be crushed using the excavator and loaded out for disposal in the active landfill area.

Absorbent materials are staged adjacent to the mixing vessels. Absorbent materials may be auto fluff, slag, fly ash, wood chips and other appropriate materials. Absorbent materials may also be temporarily stored in other areas of the active landfill.

Prior to discharging the waste load, a layer of the designated absorbent material is placed in the bottom of the vessels. The waste load is then discharged into the mixing vessels; the operator then adds more of the designated absorbent material. A minimum freeboard of 1 foot is maintained for the materials being processed within the mixing vessels. The operator mixes the waste and absorbent material with the excavator. A sufficient quantity of absorbent material is added until mixing of the waste is complete and free liquids are no longer present, based on visual inspection.

After the mixing process is complete, the mixed waste is loaded into off road dump trucks using the excavator and transported to the active landfill area. Routine operating procedures will be to pre-schedule liquid waste loads so as to coordinate with the on-site inventory of absorbent material, such that loads will be processed and landfilled on a daily basis. At a minimum, no unsolidified waste load will remain in the mixing vessels overnight and empty drums and totes will be crushed and disposed of daily.

4.2.6.7 Site Inspection, Maintenance and Monitoring

The liquid solidification process area is monitored on a daily basis by the landfill operator for potential nuisance conditions and acceptable housekeeping. This activity includes inspecting the mixing vessels and adjacent areas.

The Chaffee Facility is formally inspected on a weekly basis to ensure overall facility integrity and environmentally-sound operations. The liquid solidification process area is included in this inspection to ensure that the mixing vessels are not damaged and that the stockpiled absorbent materials are being properly managed. Operations will immediately cease if damage or a breach is noted in the mixing vessels; operations will resume only upon completion of acceptable repair.

Deficiencies identified during the weekly inspections will be promptly repaired and documented. Structural repairs made to the mixing vessels will be specifically documented and maintained with facility records.

4.2.6.8 Record Keeping and Reporting

Liquid waste loads received and processed at the Chaffee Facility are recorded and maintained by WMNY. Absorbent materials used for liquid waste mixing are also recorded. These records will be summarized and included as part of the NYSDEC quarterly and annual reports.

4.2.7 Asbestos Landfilling 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 regulated by the USEPA and NYSDEC. Examples of friable asbestos include pipe insulation and boiler wrap.

Conditions for hauling and disposal are:

- 24-hour notification to the Chaffee Facility;
- A 2212 placard, indicating the presence of asbestos, on four sides of the container;
- Class 9 Label on opposing two sides near the closure of container for bulk shipments;
- 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.
    - Information must be printed or typed.
    - Signatures where appropriate.
- Drivers should wear respirators with filters designated to remove asbestos;
- Material must be double bagged in 3 mil 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 during normal business hours;
- Non-perforated tarp required;
- Must list the Chaffee Facility on Waste Transporter permit; and
- 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. Non-friable Asbestos Containing Materials (ACM) must be landfilled and not used as ADC. 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) should remain in the cab and spotter and operator 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. If the loading/unloading warning sign is not already up, then keep the container/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.

Disposal of the asbestos-containing load shall be done with care to reduce the potential for puncturing a container and to prevent visible emissions. The dumped load is not compacted but should be covered from the up-wind side with refuse or soil. This procedure should be conducted carefully with the intent to "bridge" the asbestos-containing load with refuse. At least 3 feet of refuse or 18 inches of soil will be pushed over the load prior to passing over it with compaction equipment. Do not run machinery over exposed asbestos.

After the asbestos has been unloaded, the Scale Operator 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.

4.2.7.1 Asbestos Reporting Requirements

In the event that small amounts of bags or containers are ruptured, the designated landfill personnel witnessing the disposal should note it on the shipping paper. If there is a significant amount of improperly enclosed or uncovered waste, or ACM not sealed in leak-tight containers, a report must be submitted by the following work day along with a copy of the Waste Shipment Report to the generator's NESHAPS administering agency and the landfill's NESHAPS administering agency.

If quantity discrepancies of contained waste are discovered, the site must reconcile the discrepancy with the generator within 15 days of receipt. If the discrepancy cannot be reconciled, the site must immediately report the discrepancy and reconciliation attempts to Federal or State Agency Administrator in writing with a copy of the shipping paper.

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 indicating the location, depth, area and volume of

waste. This will require the use of a global positioning system (GPS) or similar 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.

Asbestos 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. ACM shall not be placed in a roadway, including access roads. The landfill must notify Federal or State Agency Administrator in writing at least 45 days prior to excavating or disturbing asbestos 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 temporary storage site and final disposal site. The proper personal protective equipment for the operators and spotter includes head, respiratory, body, and foot protection.

Landfill Closure Requirements

Within 60 days of site closure, a notation must be recorded on the deed to facility property and on other instrument that would be examined during a title search to notify potential purchaser that the land was used for disposal of asbestos-containing waste, a survey plot and record of location and quantity of waste disposed have been filed with Federal or State Agency Administrator and the site is subject to 40 CFR 61, Subpart M.

4.2.7.2 Asbestos Spill Reporting Requirements

Persons in charge of a vehicle or facility (landfill) from which asbestos has been released in a quantity that is equal to or greater than its reportable quantity (RQ) must immediately notify the National Response Center (NRC). 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 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 calls were made and other pertinent information. The truck driver must remain at the spill site until a supervisor allows him to leave.

The following agencies need to be notified:

- National Response Center (NRC) (U.S. Coast Guard) 1-800-424-8802 or 1-202-267-2675; and
- In New York notify the NRC and the Department of Labor 1-518-457-1255.

The following information will be required;

- Caller's name and company.
- Company phone, address, city, county, state, and zip.
- Who is the spiller?
- Spiller's phone, address, city, county, state, and zip.
- Spill date and time.
    - Discovered after the fact?
    - Directly observed?
- Type of spill material.

- Total quantity spiller/released (to the environment).
- Source and cause of release.
- Effected medium.
    - Injuries, fatalities, evacuations?
- Response actions (clean up).
- Anyone else notified?
- Any other comments?

After you have provided this information, you will be given a case number and the name of the case officer, which should be recorded. The NRC forwards the information to appropriate USEPA regional offices.

Several hypothetical instances follow to help determine if you have a reportable spill. If a bag of asbestos falls from the transport vehicle and is not broken, or if it breaks and less than one (1) pound escapes, this is not considered a reportable spill or release. If a bag, ruptures inside the trailer or sealed roll off box and more than one (1) pound escapes inside the box and not to the environment, this is also not a reportable release. Other releases greater than one (1) pound are considered reportable.

4.3 UNAUTHORIZED WASTES

Wastes which are specifically excluded from being acceptable per Part 363-7.1(o) include waste tires (except solid rubber tires), lead acid batteries, mercury added consumer products, bulk liquids (unless appropriately solidified), hazardous waste as defined by Part 371, low level radioactive waste, radium wastes and oil and gas production fluids. The landfill accepts a wide variety of residential, commercial, and non-hazardous industrial wastes. Hazardous substances, as defined by State regulations, are not accepted at the landfill. Other unauthorized wastes, which are specifically excluded, are:

- Septic tank pumpings;
- Industrial wastes which are less than 20 percent solids by weight (unless they have been approved for liquid waste solidification at the facility);
- Suspicious wastes (wastes which because of any physical characteristics such as odor, color, shape, etc. may not be acceptable waste);
- Whole cars;
- Explosive bottle gas containers;
- Lead acid batteries;
- Off-profile industrial waste;
- Pathological or regulated medical waste;
- Special nuclear or by-products material within the meaning of the Atomic Energy Act of 1954, as amended;
- Hazardous/toxic waste as defined by Federal, State and local statute; and
- Other waste not permitted for disposal at the facility.

The landfill does accept non-hazardous industrial waste with the approval of the NYSDEC and in accordance with individual waste hauler permit.

In addition, the Facility will not accept source-separated recyclables, source-separated yard trimmings and tree debris, source-separated food scraps, source-separated electronic waste, or other stewardship-specific materials. Incoming loads found to contain these categories of materials will be subject to the provisions below for unauthorized wastes.

4.3.1 Quality Control Measures to Screen Incoming Wastes

The following quality control measures currently used to screen incoming waste are established as a routine procedure at the facility:

- Incoming solid waste is categorized at the scalehouse by the Scalehouse Operator;
- Landfill personnel are trained and responsible for the identification and rejection of unacceptable load delivered to the site; and
- At the working face, equipment operators inspect the waste while spreading and compacting to make sure it is the right category and does not contain any suspicious waste.

At least one solid waste collection vehicle is chosen at random on a weekly basis for inspection of unacceptable waste at the working face. The District Manager or Operations Manager will pick a number between 1 and 100 and a particular date in a week. On that day, the Scale Operator will add that number to the beginning scale ticket number and the resulting number will be the vehicle inspected. Inspection activities include both screening before and after the solid waste has been deposited at the working face. The results of this inspection are recorded and maintained on file at the landfill. Additional random inspections will be performed as requested by the NYSDEC on-site monitor. As industrial wastes are brought onto the site, the procedures for receiving vehicles at the scale house will be followed and upon acceptance of the load, the Scale Operator will notify the landfill operators of the industrial waste (identify the truck/hauler and the type of waste). Loads of industrial waste will then be checked at the active area by the landfill operators prior to disposal to ensure compliance with the accepted waste requirements. Sampling and analysis of these loads will be conducted if the landfill operator observes unusual conditions (difference in color, odor, consistency, etc.).

4.3.2 Removal of Unauthorized Waste

Landfill personnel will be on duty during operational hours to ensure that only NYSDEC approved wastes are disposed at the landfill. In the event unauthorized wastes are presented for disposal at the landfill, landfill personnel shall refuse to accept such wastes for disposal at the landfill. In these situations, landfill personnel shall notify the NYSDEC RMME the following business day or on the next business day following a weekend or holiday, providing the hauler's name and (if possible) license number of the vehicle, the type of waste thought to have been transported, and the generator of the waste. If the waste has already been dumped and cannot be reloaded, the waste shall be segregated and secured until proper disposal can be arranged for within 30 days. If unauthorized wastes are disposed at the landfill, landfill personnel will notify the NYSDEC RMME and/or the on-site monitor within two hours of discovery. A written report on the incident shall be forwarded to the NYSDEC on-site monitor and the NYSDEC RMME within five (5) working days.

The Equipment Operator checks loads of waste at the time of disposal. Waste, which, because of its appearance, odor, physical properties or packaging does not appear to be acceptable waste, is considered unacceptable waste. If whole tires are identified in the waste as it is being unloaded from trucks or as it is being placed by the compactors, the landfill operators will move the tires to the edges of the working face. Upon completing the waste placement for the day, the tires will be collected and properly disposed of.

The Operations Manager is responsible for ensuring that the unacceptable waste is segregated on the site as promptly as practicable. The Operations Manager is responsible for completing a waste hauler inspection form for the suspicious waste received, specifying its temporary disposition on-site and notification as stated above.

The landfill's disposal agreements address what is to be done with unauthorized wastes and places responsibility on the generator to prove that the waste is acceptable for disposal at the landfill. Customers and transporters are provided information indicating that the facility is prohibited from accepting for disposal source-separated recyclables, source-separated electronic wastes, source-separated rechargeable batteries, source-separated mercury-containing products, and other source-separated items that are subject to legislatively enacted product

stewardship programs. This information is conveyed to customers and transporters by means of the website, www.WMSolutions.com.

5.0 OPERATIONS AND MAINTENANCE PLAN

The following section outlines regular procedures for waste operations, as well as the filling plan for waste once it has been accepted. The plan includes filling information through the closure period of the Facility. Once landfilling begins in a newly constructed cell, a careful process is followed in order to protect the landfill's liner system such that the environmental protections provided by the liner system work properly and that the intended final grade is reached.

5.1 HOURS & TRAFFIC FLOW

5.1.1 Hours & Holidays

Under the current permit, the landfill is open to receive solid waste from 7:00 AM to 5:00 PM Monday through Friday and 8:00 AM to 1:00 PM on Saturdays, as required, or as modified by the consent of the Town of Sardinia. A sign is installed at the entrance to the landfill, which indicates the hours of operation. The landfill is closed on six (6) holidays; New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If the above holidays fall on a weekday, the landfill is usually open on the following Saturday (7:00 AM to 5:00 PM) as if it were a weekday. Hours and days may change in case of specific emergencies. If night operation is contemplated, the landfill will supply adequate lights for the active area or any construction areas. Construction will occur at the landfill generally during daytime hours, but not outside the hours of 7:00 AM to 10:00 PM. Even though the landfill operation or construction is limited to certain times, the operating systems, including the leachate collection and storage system and the landfill gas collection and control system, are designed to function 24 hours per day, 7 days per week, and 365 days per year. Personnel are assigned to operate and maintain the systems as required by the regulations.

5.1.2 Access and Traffic Flow Controls

The landfill has a chain link fence with locking gates in areas where the public has access. The existing landfill access road, in conjunction with the perimeter access roads, provide a significant amount of space for the queuing of incoming and exiting vehicles at the landfill. Internal access roads are constructed as close as practical to the working face. Access roads are maintained on a regular basis to allow passage by vehicular traffic and to ensure proper drainage. Traffic speed is controlled by signs posted along the access road. Existing and proposed traffic flow can be seen in Figure 1-1 and 1-2, respectively. Further information on the process for receiving incoming traffic at the scale house can be found below in Section 5.6.3.

5.1.3 Unusual Traffic Conditions

Traffic problems have not occurred at the site, nor are they anticipated to during the Area 7/8 Development, for the following reasons:

1. The entrance to the site is on a State highway that is more than adequate to handle landfill-related traffic.
2. Any traffic backlog can wait on the entrance road to the landfill. The main entrance road alone can accommodate an estimated ninety waiting trucks. The other on-site roadways can accommodate at least another ninety trucks. This is more trucks and construction-related vehicles (e.g. for delivery of materials or supplies) then would be expected at the site.

In the unlikely event of traffic backup at the site, WMNY will post an employee at the problem area to direct traffic.

5.1.4 Receipt of Waste

The facility may temporarily store shipments of putrescible waste in the roll-off storage area. This storage will only be allowed under circumstances when the immediate disposal of the waste could result in significant nuisances or environmental concerns. These include delaying the disposal of a load containing waste susceptible to littering during periods of high wind, delaying the disposal of frozen loads to prevent excessive traffic hold-ups, storing a minimum number of loads that could not be disposed due to the landfill closing down (usually due to weather), etc. This waste shall not be stored for longer than 24-hours, and will be managed in the following manner:

- A log will be kept stating the date and time that the container was delivered to the area followed by the date and time when the container was taken to the working face to be emptied.
- The containers will be covered with waterproof tarps and will not be opened during the storage period.
- Containers will be stored in a manner which will prevent possible damage or rupture to the storage containers.
- During the storage period, the Hauling Company Operations Manager will inspect the containers and storage area daily to ensure the area is free of nuisances (i.e. dust, odor, noise and leaks).
- If spills or leaks are detected, the landfill will notify the NYSDEC and follow the spill procedures as required in this document or applicable SWPPP or SPCC plans.

5.2 SELECT WASTE

When a new cell is opening at the landfill, a careful procedure is followed to ensure that the landfill's liner system is not punctured and is able to support future landfilling activity without impacting the environment. After liner construction has been completed on each of the phases but prior to placing waste, the Chaffee Facility will maintain the leachate collection layer in the following manner.

Stormwater that does not fall directly on the collection layer or waste placed on it will be directed away from the collection layer to prevent clogging and sedimentation. Traffic will not be allowed on the collection layer. Haul roads to provide access for waste haulers or construction vehicles will not be allowed on the collection layer. Dust will be minimized from entering the collection layer by keeping surrounding roads and surfaces clean and watered. Each cell will be allowed to remain open (i.e., exposed top of finished primary leachate collection layer) for only one winter season, if the cell remains open for longer periods, a plan to protect the liner system will be implemented by the Facility.

Once the landfill is ready to place waste, the cell will initially be divided into 3- to 4-acre areas, to limit the amount of stormwater collected in the leachate collection system as described below. First, a 5-foot lift of select waste will be placed over the leachate collection layer followed by 5 feet of waste and then operating cover. Select waste deposited within the first 5-foot lift above the leachate collection layer will be placed in a manner which prevents damage to the liner system. To achieve this, the landfill will position a spotter on the leachate collection layer to inspect the select waste and ensure removal of rigid objects (i.e. objects greater than 2 feet in length including wood, metal, bed springs etc.). Trucks depositing the waste and landfill equipment placing the waste will be located on haul roads and platforms of significant thickness to prevent damage to the liner and collection systems.

Low ground pressure equipment will be utilized to place the lift of select waste. Upon completion of the placement of the select lift, the Operations Manager will monitor both the primary and secondary leachate collection systems to ensure that damage did not occur.

The initial 10 feet of waste may not contain sludges, C&D, soils, industrial wastes, or waste containing significant quantities of fines. At the completion of each day, a complete 10-foot lift must be placed in areas that were opened during the day. This layer will then be covered with operating cover, excluding the leading edges to

prevent fines from migrating into the leachate collection layer. Operating cover will not be placed between the two 5-foot lifts.

5.3 WASTE PLACEMENT AND COMPACTION

Following the first 10-foot layer, subsequent lifts will be placed approximately 10 feet in thickness until reaching final grade. Solid waste, excluding industrial waste and ash, will be spread and compacted on the preceding lift of solid waste. Cover material is soil or other suitable material, or a combination of same, acceptable to the NYSDEC that is used to cover compacted solid waste in a landfill. As the cell is filled above the perimeter berm, the lifts along the outside slopes of the waste will be constructed first and covered with intermediate cover. For more information on Cover Materials and placement, please refer to Section 6.0.

When solid waste is deposited at the working face by incoming trucks, the following conditions will be adhered to during operations;

1. The working face width will be restricted to the smallest area practicable, based upon the peak daily incoming waste rate.
2. Trucks will be unloaded as close to the working face as possible to limit tracking waste out of the landfill.
3. Before additional waste filling occurs in an area that has received operating or intermediate cover, the soil may be scraped off and stockpiled for continued use as operating cover material. When Alternative Operating Cover (AOC) soils have been used as alternate operating cover, the cover may not be removed and reused. When the amount of waste contaminating the soil prohibits its use as operating cover, the soil shall be disposed of in the landfill.
4. Lift height will be a maximum of ten (10) feet, except that the first lift placed over the leachate collection layer will be installed as five (5) feet of select waste followed by five (5) feet of waste.
5. The Equipment Operator will watch for unauthorized wastes, including tires or white goods, and if they are encountered, will follow the unauthorized waste procedures (see Section 4.3).
6. After the placement of the first ten feet of waste as described in #4 above, waste will be spread and compacted in layers not to exceed two (2) feet in thickness. Each layer shall be compacted with a minimum of three (3) passes of the equipment.
7. Maximum working face slope will be no greater than three (3) horizontal to one (1) vertical.
8. A minimum of six (6) inches of cover material or AOC will be applied to the top surface of waste at the end of each day (see Section 6.0).
9. At least twelve (12) inches of compacted soil (intermediate cover) shall be placed over areas that will not receive wastes within 30 days (see Section 6.0).

Based on fill volume calculations, the average expected in-place density of waste at the landfill is approximately 1,700 pounds per cubic yard.

Access roads to the landfill cells will be constructed out of stone and stabilization fabric as needed. Where possible, approved materials may be used as an alternative to stone. The gravel access road will originate at the edge of the existing paved access road, go over the cell berm and terminate at the internal landfill access road.

Since access is required for the remaining cells after an open cell is covered, an access road will be constructed by benching the road base into the waste. It is anticipated that, as the landfill is filled, the access road must increase in grade. Consideration will be given to the grade of the access roads to maintain access given the season of operation.

5.4 WASTE PLACEMENT MONITORING

The process for receiving incoming traffic to the Site is outlined in Section 5.6.3 – Truck Scales. As stated in that section, copies of completed waste tracking forms will be kept for at least 3 years. Details related to record keeping for liquid wastes are discussed separately in Section 4.2.

As waste is placed each day, a daily log will be maintained to include the following information:

- Waste Type
- Waste Quantity
- Waste Origin and or Hauler
- Date Waste was Received

In addition to the daily log, each day's waste placement location is stored in the WMNY computer system at the scales, noting the horizontal and vertical location of the day's waste placement. This information is entered into the computer system by the Scale House Operator as each load is accepted for disposal.

The landfill is routinely surveyed to estimate available airspace and to calculate remaining site life. Annual aerial surveys and semi-annual ground surveys are performed to provide the Chaffee Facility with volume data to evaluate airspace utilization. The annual records for incoming tonnage are checked against a volumetric survey of the in-place waste, so that the density achieved during waste placement can be calculated and reported by the Facility. Grade stakes are placed along the exterior berms and slope staking is performed during final grade waste placement. These surveys are also performed to ensure sideslopes and waste elevations are within approved limits.

All liquid waste loads received and processed at the Chaffee Facility are recorded and maintained by WMNY. Absorbent materials used for liquid waste mixing are also recorded. These records will be summarized and included as part of the NYSDEC quarterly and annual reports. Further information on procedures for liquid waste acceptance can be found in Section 4.2.

5.5 FILL PROGRESSION

Currently Cells 1 through 6 of the Western Landfill are constructed and being filled and the Overliner Cells (Valley Fill) are partially constructed and being filled. Figure 1-1 depicts the current site conditions. The cells that are part of the Area 7/8 Development will be constructed as follows; Cell 1-South and Cell 7 baseliner, Cell 8 baseliner, and Cell 7/8 overliner. This is based on the conceptual progression of waste filling and intermediate cover construction shown on the Part 360 permit drawings, but the specific limits of each stage may be modified depending upon actual waste volumes and rate of filling of the landfill, management of stormwater run-off and the gas collection system, and other operational conditions.

Following the first 10-foot layer of select waste described in Section 5.2, subsequent lifts will be placed approximately 10 feet in thickness until reaching final grade. As the cell is filled above the perimeter berm, the lifts along the outside slopes of the waste will be constructed first and covered with intermediate final cover.

Each of the Area 7/8 Development cells is designed with both a primary leachate collection system and a secondary leachate collection system. Each of these systems is designed to operate independently of each other and for each cell. This will allow for an individual cell to be monitored, if a problem is detected, allowing for the landfill to modify operations, and continue landfilling in one of the other constructed cells.

As each phase of the landfill is constructed and filled, intermediate cover will be placed on areas that reach the permitted grade. The filling and placement of intermediate cover and final cover is described in more detail in Sections 6.1.3 and 6.1.4.

5.6 WASTE OPERATIONS EQUIPMENT

Various equipment exists on Site to help handle the multi-faceted responsibilities at the landfill. Significant equipment is outlined below. Additional equipment typical to a landfilling operation such as extra pumps or tools for controlling vegetation also exists at the Site. Equipment related to the liquid waste solidification process is outlined in Section 4.2.6.

5.6.1 Motorized Equipment

The type of motorized equipment utilized at the landfill is listed in Appendix B. The equipment is used to complete the site activities related to daily waste placement operations, soil borrow activities and site maintenance. Routine maintenance and major repair of equipment and machinery is handled on-site in the maintenance facility. Landfill equipment that routinely operates at the active face is equipped with fire extinguishers that may be used in the event of a fire. Extinguishers are maintained in conformance with State and local fire codes and regulations. In the event that a piece of equipment is inoperable or additional equipment is needed, rental equipment is available on short notice.

5.6.2 Gas Monitoring Equipment

A GEM 2000 Combustible Gas Meter or equivalent combustible gas meter is utilized on-site for the detection of landfill gases at the landfill boundaries and in on-site structures. The detection range of the meter is 0-100 percent LEL and is calibrated on a schedule recommended by the manufacturer.

5.6.3 Truck Scales

The scale house is a one story, concrete block and frame building located along the main access road to the scale. One in-coming (gross) and one out-going (tare) scale is located adjacent to the scale house. The scales are connected to a computer system for tracking, billing, reporting, etc. In case of equipment malfunction, either scale can be used for both gross and tare weights.

Procedures for receiving vehicles at the scale house are as follows:

1. Vehicles drive onto the in-coming scale and stop.
2. The Scale Operator makes sure that the driver has an agreement on file with the landfill. The Scale Operator records the date and time, account number (this will reference the waste origin/hauler), waste type, approved application number if applicable, the current location of solid waste placement, gross vehicle weight, tare weight, and the net weight of solid waste in the computer, which generates a scale ticket.
3. Scale tickets are verified and signed by the driver of the vehicle. The Scale Operator gives the scale ticket to the driver and another copy is stored electronically for future reference and compiling the monthly invoicing.
4. Vehicles are directed to the active working area of the landfill.
5. For loads containing industrial waste or when tare weights are not available, the vehicle is reweighed on the outgoing scale after depositing solid waste in the disposal area.

WMNY also has an “unattended” option at the scales for regular non SPW customers. The customers are trained on use of the electronic system that prints out scale tickets for them. If they need any further help or instructions, they can inquire with the Scale Operator.

WMNY will maintain copies of completed forms for a minimum of three (3) years after they have been completed. The scales must be tested and certified annually.

5.6.4 Site Communications

An internal communication system consisting of telephones and two-way radios is utilized at the site. Motorola GTX or equivalent two-way radios, and telephones are located in the maintenance facilities, main office building, recycling facility, leachate loadout and landfill operations building, power production plant and at the scale house. In addition, two-way radios are located in site vehicles and carried by Managers and Supervisors. The District Manager and Operations Manager also carry cellular telephones. A fax machine is available in the main office building.

5.7 STORMWATER CONTROLS

Stormwater rain tarps are used within each cell during filling to keep stormwater from commingling with leachate, where the entire cell's primary drainage material is initially covered and is then removed in strips as waste placement proceeds from the high end of the cell to the sump. The rain tarp material covering the cell will be a suitable reinforced plastic material capable of preventing significant water infiltration. The separation between the removed tarp and exposed waste will be a minimum of 10 feet to allow stormwater that contacts the waste to be collected in the primary drainage material. Stormwater collected on the rain tarp will flow to the sump area where it can be removed by pumping it up and out of the cell. Stormwater will be removed from the sump areas on a daily basis and following rain events to prevent excessive heads and prevent leakage through the rain tarps.

The current operation at the working face limits run-on/runoff. The operation of the landfill includes limiting the size of the working face. A smaller working face results in better control of waste placement procedures for limiting run-on/runoff.

The slopes of the working face and the area around the working face are prepared (sloped inward) to collect the precipitation that comes into contact with the waste and operating cover. Precipitation that comes into contact with the working face waste or operating cover, percolates through the waste mass into the landfill.

If the working face is located in a large flat area, run-on control is primarily performed through limitation of the size of the working face. In areas where the working face is adjacent to a large upslope area, a diversion swale will be constructed between the upslope area and the working face to intercept surface runoff from the slope and divert the runoff away from the working face. The decision to construct a diversion swale is based on daily field conditions and the fact that surface water which contacts either waste or operating cover must be collected and treated as leachate.

Stormwater controls outside the cell will consist of the perimeter drainage channels, culverts and sedimentation basins. These devices will be constructed as each cell is developed. Therefore, runoff from the perimeter berms and roads will be initially directed to these structures. Upon placing intermediate cover or final cover, stormwater will be directed into the perimeter drainage structures as described above.

The design of Sedimentation Basin #5 allows for the basin to be closed in the event that stormwater runoff from the landfill has been contaminated. This allows for the stormwater to be tested and disposed of properly. The basin inlet and outlet are equipped with valves, which will be typically open, and on a daily basis the water will be visually inspected (see form in Appendix A). If a problem is detected, the valves will be closed, and the Operations Manager will initiate an investigation to determine the source and concentration of the contamination as discussed in the Operation-Related Contingency Plan portion of this document (Section 15.4).

5.7.1 Uncontrolled Releases of Runoff

Precipitation that may come into contact with exposed waste during construction activities, is directed into the landfill waste mass and ultimately to the leachate collection system by constructing diversion and containment berms around the area of exposed waste. Precipitation that falls outside exposed waste areas and adjacent to the construction area is directed to existing drainage ditches constructed around the facility. Stormwater quality

controls such as silt fence, hay bales, and sediment traps will be installed or constructed prior to construction in accordance with the Storm Water Pollution Prevention Plan (SWPPP). Ultimately, runoff from construction activities shall be directed to stormwater basins constructed as part of the facility's Stormwater Management and Sediment and Erosion Control Plan. In the event that an uncontrolled release of runoff occurs, the NYSDEC RMME will be contacted immediately.

5.8 DUST

During dry periods, excessive dust resulting from operational activities may be a nuisance. Dust will be controlled by maintaining clean access roads and by applying water when conditions require. Equipment may need to slow down to limit the creation of dust or be suspended from using certain roads until adequate control measures can be put into place. A water truck kept at the site will be used to control dust when conditions require.

5.9 LITTER

The landfill will contain litter close to the working area. Restriction of the active working area to as small an area as possible will facilitate the control of litter. Small amounts of cover material can be spread on the waste during the on-going operation when wind presents a problem.

Temporary fencing will be used to control papers and will be located strategically adjacent downwind of the working face. Permanent fencing is installed along the east berm of the existing landfill and is installed along the north and west portion of the Western Landfill and will be installed along the perimeter of the Area 7/8 Development. Woven or welded wire and netting are appropriate fencing materials. Steps will be taken to clear fences of litter before they become blocked, thus decreasing their effectiveness. Landfill employees manually pick up tracked litter along the access roads daily. Under normal working conditions, litter will be picked up daily along the installed fences.

The landfill will suspend operations when winds reach velocities determined to create difficult working conditions. In the event the litter leaves the site, landfill personnel may work extended hours to manually pick up blowing litter.

5.10 VECTORS

Vectors have not been a problem at the landfill. Proper operating cover placed on the waste will control problems with insect and animal pests. Vectors are greatly discouraged when waste materials are not easily available. Within the operation of the landfill, compaction of the operating cover further serves to minimize problems with vectors.

If vector control presents a problem at the site, cover soil usage will be increased. If a problem persists with vectors such as insects or rodents, an extermination program can be initiated. This program would be in strict accordance with requirements of the New York State Departments of Health and Environmental Conservation.

5.11 PERSONNEL AND USER SAFETY

The following sections describe the personnel and user safety program at the facility.

5.11.1 Safety Equipment

Safe and secure working conditions and appropriate safety equipment will be maintained for facility personnel. The Operations Manager will insure the proper use of the safety equipment. The safety equipment to be issued will be dependent on the job at the facility.

At a minimum the following safety equipment will be available:

- Safety Glasses;
- Hearing Protection;
- Gloves;
- Hard Hat;
- Steel Toe Boots; and
- High Visibility Safety Vest.

Additional equipment which may also be required and is furnished in buildings and on operational machinery include:

- First Aid Kit;
- Rain Gear;
- Fire Extinguishers; and
- Eye Wash.

The facility maintains a supply of fire extinguishers that may be used in the event of an emergency incident. These extinguishers are located at the scale house and the maintenance facility for easy accessibility. Fire extinguishers are also located on the landfill vehicles and equipment for use in cases of field emergencies. Extinguishers are maintained in conformance with State and local fire codes and regulations.

First aid and safety equipment is located in strategic locations on the site, and some items may be kept in landfill vehicles and on landfill equipment. First aid kits, located in the scale house, the main office, and maintenance facility contain a full range of items necessary to care for minor injuries needing prompt attention, and are easily and immediately accessible to on-site personnel.

5.11.2 Signs

Appropriate signs are installed to identify the location of permanent safety equipment.

5.11.3 Internal Communication/Warning System

An internal communication system consisting of telephones and two-way radios is available at the site for notifying facility personnel in the event of an emergency. Units are located in readily accessible areas in the maintenance facilities, main office building, recycling facility and at the scale house. In addition, units are also available in two site vehicles and one is carried by the Operations Foreman. This system provides facility personnel with immediate emergency notification, capabilities and necessary instructions in the event of an incident.

5.11.4 External Communication/Warning System

The landfill has developed a network of emergency response agencies and personnel that may be contacted in the event of an incident at the landfill. Appendix A provides a complete listing of the Emergency Response Agencies and Contacts that will or could be notified by telephone for assistance in an emergency.

5.11.5 Confined Space Entry

As with many other industrial facilities, the Chaffee Facility may have "Confined Spaces" within the facility. Chaffee Facility personnel do not make confined space entry. Rather, Chaffee personnel are trained to recognize permit required confined spaces so that appropriately trained contractors are engaged. The Chaffee Facility uses a "Permit-required Confined Space Program." The facility will use a company certified to provide confined space entry, when required.

6.0 COVER MATERIAL MANAGEMENT PLAN

The following sections detail the cover material management plan for the Chaffee Facility. Cover materials, excluding gravel, geomembrane and geonet/geotextiles, are imported from offsite or are excavated from areas on Chaffee Facility property. These areas include existing borrow areas located east of the Closed Landfill as well as proposed Borrow Area C and the South Borrow Area.

6.1 METHOD OF COVER PLACEMENT

6.1.1 Operating Cover

A minimum of 6 inches of compacted cover material is applied on exposed surfaces of solid waste at the close of each operating day to control vectors, fires, odors, blowing litter, and scavenging. A minimum of 12 inches of compacted cover will be applied to areas where no additional waste has been or will be placed within 30 calendar days of the last placement of waste unless an alternative thickness or material is approved pursuant to section 363-6.21.In addition to soil, under 6 NYCRR 363-6.21(d), the NYSDEC may approve, on a case-by-case basis, the use of certain wastes, contaminated soils, and other materials for AOC. These materials can consist of soil, foundry sand, and synthetic cover. Requests for the use of AOC will be made to the NYSDEC prior to its use. The landfill shall contact the NYSDEC to schedule a date and time for inspecting the potential AOC. In the event that nuisance conditions develop as a result of the use of an AOC, the NYSDEC may rescind the approval to utilize the AOC. AOC shall not be stripped after placement and must be covered the following operating day with either waste or virgin soil. When virgin soil is used for operating cover it may be removed at the start of the workday and prior to the placement of additional lifts. The previous day's operating 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. Virgin soil will be used as cover on external slopes.

The operating cover material is placed in one lift. Material is placed adjacent to the open face and is spread over the waste with a bulldozer. The material is compacted by tracking with a bulldozer. Stormwater or runoff contacting the operating cover must be directed into the landfill and be collected and treated as leachate.

The storage of AOC is limited to areas where runoff can be collected (i.e., not on sideslopes) as leachate and where windblown materials will not land on intermediate and final covered areas. A soil berm will be constructed around AOC storage areas to collect the runoff and prohibit run-on from contacting the AOC. The collected runoff will percolate back into the landfill. If an excess of runoff exists within the bermed storage area, the leachate tanker is to be utilized to collect the runoff and transfer the runoff to a permitted treatment plant. AOC stockpiles shall not create nuisances, disrupt daily operations, and should be received as they are used to minimize the amount to be stockpiled.

6.1.2 Crushed C&D as Operating Cover

C&D Material Acceptance/Storage

The Chaffee Facility will only accept recognizable C&D debris as defined by Part 360.2(b)(61). C&D used as AOC will meet the requirement that the concentration of sulfate does not exceed 0.5 percent by weight. Incoming loads of C&D will be inspected for unacceptable articles of debris including, but not limited to metal and plastic containers larger than one-gallon, white goods, bulky items such furniture, friable asbestos, paper, plastic, cardboard, and electrical fixtures. These unacceptable articles of debris will be removed at the time of inspection and landfilled. The recognizable C&D that has been inspected and accepted will then be stockpiled and /or processed by crushing on an as needed basis.

Incoming loads of C&D that are not immediately crushed for operating cover will be stockpiled within the landfill footprint. C&D loads that are dusty or may cause a littering nuisance shall be immediately disposed of and will not be used as AOC. As C&D debris is needed for operating cover, it will be removed from the stockpile for crushing. The Chaffee Facility anticipates stockpiling no more than 10,000 tons of C&D debris for this purpose.

Unprocessed C&D debris storage piles will not exceed 20 feet in height, and the area of the storage piles at the base of the pile will not exceed 5,000 square feet. A minimum separation distance of 25 feet will be maintained between adjacent piles.

Separate piles of unprocessed C&D debris will not be covered as long as weather conditions allow. C&D will not be stored in one pile for more than 30 days.

Leachate Management and Drainage

Unprocessed C&D debris will be stored and managed to limit rainwater run-on and run-off. C&D debris stockpiles will be located within the landfill footprint. Each pile that will not be used during the current operating day will be surrounded by a soil berm to limit run-on and run-off. Run-off from the stockpiles will be directed into the waste mass for collection as leachate.

C&D Crushing /Spreading

C&D debris used as operating cover will be removed from the stockpile or tipped directly onto the working face. The C&D debris will be spread in a 2-4-foot lift using a bulldozer or trash compactor. The C&D debris will then be crushed using the trash compactor. The trash compactor will pass over the C&D debris until the C&D pieces are small enough to be effective operating cover. The crushed C&D will then be spread using a bulldozer or compactor into a minimum 12-inch layer of operating cover. The C&D shall not be stripped after placement and must be covered within 72-hours of placement with either waste or virgin soil.

Documentation/Reporting

The Chaffee Facility will document the quantity of C&D debris that is stockpiled and crushed for use as operating cover. The volume of C&D debris accepted for use as AOC will be reported quarterly. As with other AOC materials, C&D debris that is stockpiled and crushed for AOC will not be counted against the Chaffee Facility's annual permitted tonnage. However, the total amount of AOC cannot exceed 20 percent of the total annual amount of solid waste disposed in the landfill.

6.1.3 Intermediate Cover

A minimum of 12 inches of compacted soils is to be applied to external waste slopes for every 20 feet of vertical rise. Intermediate cover will consist of geomembrane or soil. If a geomembrane is utilized as intermediate cover, the geomembrane material must be chemically and physically resistant to materials it contacts and be able to accommodate the expected forces and stresses such as those caused by settlement of waste and wind uplift. The soils used shall be a silty and clayey soil so as to limit the amount of stormwater infiltration, leachate outbreaks, and inhibited the migration of landfill gas. Intermediate cover does not include topsoil or vegetation. Erosion damage to the intermediate cover is repaired as necessary when weather conditions permit. This cover material is placed in one twelve (12) inch lift or in the case where silty and clayey operating cover was placed on exterior slopes, additional material will be added to achieve a minimum of 12 inches of cover. Material is dumped adjacent to the area to be covered and is spread over the area with a bulldozer. The material is then compacted by tracking with a bulldozer. Stormwater generated from the intermediate cover surfaces or passing over this surface from other capped surfaces shall be directed to the perimeter drainage structures to minimize leachate generation.

WMNY will perform monthly visual inspections of the various covers in places at the site. Specifically, the inspections will note the following:

- Physical damage from animals, wind or snow;
- Erosion damage to the soil cover systems
- Vegetative cover condition
- Differential settlement effects causing slack or tension in the geosynthetic materials (where present); and
- Excess landfill gas buildup causing localized uplift of the geosynthetics (where present).

In the event that the inspections indicate a defect or issue, WMNY will take the appropriate corrective action. These resolutions will be documented in the subsequent weekly inspection.

6.1.4 Final Cover System

The actual area capped on a year by year basis may vary based on fill conditions at that point in time. The final cell capping events will proceed within 5 years of attaining final grades.

Prior to the installation of the final cover system, the intermediate or operating cover will be stripped and removed to a minimum thickness of 6 inches. The final cover system will be constructed once portions of the site have reached design height and initial settling has occurred.

The final cover system (6NYCRR Part 363-6.16 to 6.18 of Part 363 regulations) for the proposed landfill will consist of the following components:

- For 3H:1V slopes
  - Prepared grading layer over the waste;
  - Geosynthetic Gas venting layer;
  - 40 mil (minimum) textured LLDPE geomembrane liner;
  - Geosynthetic Drainage layer;
  - 18-inch barrier protection layer; and
  - 6-inch topsoil layer.
- For 4 percent slopes
  - Prepared grading layer over the waste;
  - Geocomposite Gas venting layer – non-woven geotextile with venting strips;
  - Geosynthetic Clay Barrier (GCL)
  - 40 mil textured LLDPE geomembrane liner;
  - Geosynthetic Drainage Layer;
  - 18-inch barrier protection layer; and
  - 6-inch topsoil layer.

The specifications, construction requirements, and specific products and configurations for the final cap materials will meet the requirements of 6 NYCRR Part 363-6.7, 363-6.8, and 363-6.12. Engineering design and Construction QA/QC procedures must be submitted and approved by the NYSDEC prior to constructing the final cap. A construction certification report will be submitted to the NYSDEC within 45 days after the completion of landfill closure construction. The report will include items required under Part 363-9.4.

6.2 COVER MAINTENANCE

6.2.1 Seeding and Mulching

Seeding and mulching will occur within 14 days of completion of intermediate or final cover construction. The seed mixture for both either temporary or permanent uses is outlined in Section 2900 of the project specifications.

The seeded areas will be mulched to conserve soil moisture and provide additional temporary erosion protection. Mulch may consist of clean hay, straw or wood-fiber. Alternatively, hydroseeding may be used. A natural or synthetic erosion mat may be installed prior to seeding.

6.2.2 Mowing

Vegetated cover areas will be mowed on an annual basis. Initial mowing will not begin until after vegetated areas have completed one growing season and the grasses have set and dropped seeds.

6.2.3 Cover Assessment

The Chaffee Facility will implement a program of assessing operating and intermediate cover in accordance with the Active Landfill inspection form in Appendix A. Other cover inspections are also performed in accordance with the Stormwater Pollution Prevention Plan (SWPPP) and as part of the gas systems maintenance. The inspection frequency and reporting requirements are discussed in those plans. Copies of the SWPPP and GCCS plan are on file at the facility.

6.3 QUANTITY OF COVER MATERIAL

The following are the estimated materials needs for the proposed landfill's final cover system;

- 6 inch - Suitable Subbase Soil – 83,500 cy
- Gas Venting Geosynthetic – 4,508,000
- Geosynthetic Clay Liner – 1,063,000 sf (on plateau areas)
- 40 mil Textured LLDPE Geomembrane Liner – 4,508,000 sf
- Drainage Layer Geosynthetic - 4,508,000 sf
- Barrier Protection Soil (18 inches) – 250,500 cy
- Topsoil (6 inches) – 83,500 cy

The available soil from Borrow Area C is estimated to be approximately 543,000 cy and the volume available from the South Borrow is estimated to be approximately 202,000 cy. The soils excavated from the cell footprint is anticipated to be approximately 289,000 cy.

The required quantity of the above materials needed to complete the final cover system is based upon the total waste footprint to be permitted as part of the Area 7/8 development. The components of the cover and their thickness are as required by the current 6 NYCRR Part 360 regulations. Criteria for placement of the final cap materials will be based upon design drawings, specifications and QA/QC plans developed for each capping event. These plans will be submitted to the NYSDEC for review and approval prior to beginning the construction of each segment of the cap. Stockpiles of materials will be made available for emergency, operating, or intermediate covers.

Operating cover and intermediate cover typically are not stored or stockpiled on-site. When limited amounts of the material are stockpiled, they are typically placed in borrow areas that have not yet been reclaimed, material laydown areas, or future development areas within the footprint of the Area 7/8 Development. With this choice of material placement, potential cleanup or moving of stockpiled materials will be minimized to areas that have already been disturbed and will continue to be part of operations after the removal of material.

7.0 ENVIRONMENTAL MONITORING PLAN & SITE ANALYTICAL PLAN

The Environmental Monitoring Plan (EMP) for the Chaffee Facility is a separate document that includes groundwater, surface water and leachate monitoring per the requirements of 6 NYCRR Part 363-4.6(f). The EMP is included as Part VII of this submittal. The EMP includes discussions pertaining to the operation and maintenance of the monitoring points.

The Site Analytical Plan (SAP) for the Chaffee Facility is a separate document that includes methods of sample collection and preservation, chain of custody documentation, analyses to be performed, analytical methods, data quality objectives, procedures for corrective actions, and procedures for data reduction, validation and reporting. The SAP is included as Part VII of this submittal and show the facility will meet the requirements of 6 NYCRR Part 363-4.6(g).

8.0 LEACHATE MANAGEMENT PLAN

This section addresses the requirements of 6 NYCRR Part 363-4.6(i) regarding leachate management. The Chaffee Facility is constructed, operated, and maintained in a manner that is intended to limit the quantity of leachate generated, and to prevent the migration of leachate into surface water and groundwater. This section addresses how leachate is managed at the site to meet these goals.

8.1 LANDFILL OPERATIONAL CONTROLS

The Chaffee Facility is constructed, operated, and maintained in a manner that is intended to limit the quantity of leachate generated, and to prevent the migration of leachate into surface water and groundwater.

In order to limit the quantity of leachate generated, the landfill cells that have not yet received waste will have stormwater controls installed that will allow precipitation that collects within those cells to be discharged to the stormwater collection system.

Leachate will be further minimized through the closure of areas of the landfill which have been filled to permitted maximum grades and covered low permeability operating or intermediate covers. Closed areas will be appropriately capped and vegetated to minimize the infiltration of stormwater and lessen the leachate loading on the liner of these areas. Further details on the closure process can be found in Sections 6.1.4 and 16.0

To limit the potential for perched leachate and leakage seeps during the operation of the landfill, the equipment operators will work to avoid creating low-permeable layers within the waste mass. Low-permeable layers typically are the result of layers of cover material, sludge, and haul road materials that are placed in a lift and not adequately removed prior to placing additional waste. Equipment operators must take care to remove apparent lifts of these materials.

8.2 LEACHATE CONVEYANCE, STORAGE, AND TRANSFER SYSTEMS

The following section breaks down the leachate collection, storage, conveyance, and transfer systems in the different parts of the landfill. The leachate system is broken out into two different parts – the closed landfill area and the active landfill area.

8.2.1 Introduction

8.2.1.1 Closed Landfill Leachate Collection System

The Closed Landfill's leachate collection system was constructed in two stages. The first included the construction of a perimeter leachate drain around the Original Fill Area with the installation of three collection tanks denoted as tanks 1, 2 and 3. The second included construction of 24 inches of compacted liner material, with an in-place hydraulic conductivity of less than 1.0×10^{-7} cm/sec, to both the west and north of the Original Fill Area. The lined areas were constructed with approximately 3 percent slopes to allow leachate to drain to a system of leachate collection pipes and ultimately to collection tanks 4 and 5.

The Closed Landfill's present leachate transmission and storage system now consists of four leachate collection sumps (LCS) and two leachate storage tanks (LST). In addition, as part of the landfill gas control system there are currently three condensate knockouts, which either transmit condensate directly to an LST or collect it in a storage tank for subsequent disposal. Two of the condensate knockouts drain liquid directly into either LST 1 or LST 2. The third condensate knockout consists of a tank, which collects liquid from the gas header just prior to the gas entering the power production plant or flare, the operation and maintenance of this tank will be discussed in this section.

As part of the Western Landfill project, the single tank that replaced tanks 3 and 4 was replaced with a new double wall HDPE manhole pump station (LCS 3/4 manhole), which discharges into the landfill leachate transmission line and above ground storage tanks. LCS 5 was previously directly connected to the landfill leachate transmission lines and above ground storage tanks. LCS 5 was modified prior to the construction of the Western Landfill Cell 2 baseliner. The modification included removing the vertical riser and constructing a new side riser discharge system beneath the Cell 2 baseliner subgrade.

The operation and maintenance of each of these systems are discussed in Section 8.2.3.

8.2.1.2 Active Landfill (Cells 1 through 8 and Valley Fill) Leachate Collection System

The active landfill leachate collection, transmission and storage systems are designed to collect and store leachate generated from the landfill in a manner that limits impacts to public health and the environment. Due to the fact that the operation of the landfill includes limiting the size of the working face, smaller amounts of precipitation are introduced into the waste mass, which limits the generation of leachate. Limiting leachate generation is also a result of applying operating or intermediate as required by the regulations and the installation of a NYSDEC approved final cover system at closure.

Each cell of the Western and Valley Fill Landfills are constructed with a double composite liner system meeting the requirements of 6 NYCRR Part 363-6. The double composite liner system contains a primary leachate collection layer and secondary leachate collection layer. The primary system is constructed with a granular drainage layer, collection pipes, collection sump and sump pump to allow for removal of the leachate to the gravity transmission line and on-site storage tanks. The secondary leachate collection system is constructed with a geocomposite drainage layer, collection pipes, collection sump and sump pump to allow for removal of liquid to the gravity transmission line and on-site storage tanks. The leachate storage system consists of two above ground storage tanks located within a secondary containment tank. Leachate flow into and out of the tanks is controlled by piping and valves located in the control vault, which is constructed within the secondary containment tank. Leachate is transferred to tanker trucks through the loadout pump located adjacent to loadout pad. The loadout pump can also be used to transfer leachate between either of the storage tanks. Trucks are loaded on the loadout pad, which is located within the enclosed loadout building. The components of the leachate collection system are shown on Figure 8-1.

As part of the gas control system there are currently two condensate knockouts, which transmit condensate directly into the transmission system piping for disposal to the above ground leachate storage tanks.

8.2.2 Closed Landfill Leachate Collection, Transmission and Storage Systems

8.2.2.1 Leachate System 1 and 2

Leachate generated along the eastern half of the Closed Landfill is collected in perimeter perforated drain pipes that slope to either LCS 1 or LCS 2. These sumps were installed in the locations of the former leachate collection Tanks 1 and 2 and consist of a manufactured HDPE sump with 24-inch diameter sideriser pipe daylighting along the outside of the landfill berm. Located within each of the siderisers is a sump pump equipped with level controls. Leachate is pumped from the siderisers to each of the leachate storage tanks, denoted as either LST 1 or LST 2. These tanks are dual contained and have been equipped with a submersible pump, level controls, leak detection monitoring system and cathodic protection monitoring test station. The submersible pumps located within the tanks allow for leachate to be transferred to a tanker truck for off-site disposal. The tanker trucks are filled on concrete loadout pads, which have been constructed adjacent to the storage tanks.

In the event of a power failure, a diesel-powered backup generator is located adjacent to the flare building. This generator can be manually started to operate both LCS 1 and 2 and LST 1 and 2. Instructions for operating the emergency generator are maintained in the facility offices. If a power failure occurs at LCS 1 or 2 or at LST 1 or 2,

an Autodialer has been installed as part of these systems to transmit a power failure message to a list of site personnel. The receipt of this message will allow site personnel to initiate a manual startup of the generator.

Leachate Collection Sumps No. 1 and No. 2 Operation

Leachate is collected and pumped from LCS 1 and LCS 2 located along the toe of the east berm of the existing landfill. Each sump is equipped with an EPG WSDPT 5-2 wheeled sump drainer. The pump and associated level probes are located inside a 24-inch diameter HDPE sideslope riser pipe which is welded to the HDPE sump. Each pump's control panel is located at the corresponding leachate storage tank. This riser pipe allows the pumps and level probes to be accessed for service, if necessary. The pumps are sized to pump approximately 15 gpm at 45 feet of total head.

Leachate Sump Pumping System Inspections

Inspection of the leachate collection sumps consists of both weekly and monthly activities. The weekly inspection involves monitoring of the sideslope riser secondary containment inspection ports for signs of leakage (form in Appendix A-6). Each month, the high-level alarm will be checked to ensure proper functioning (form in Appendix A-10).

Leachate Storage Tank No. 1 and No. 2 Operation

Leachate that is collected and pumped from LCS 1 and LCS 2 will be directed to LST 1 and LST 2 respectively. Each of the leachate storage tanks were manufactured by Highland Tank and Manufacturing Company. Tank drawings and information are provided in Appendix A1 and A2. LST 1 and LST 2 are double-wall steel underground storage tanks with polyurethane coating for corrosion resistance, designated as Steel Tank Institute – P3 Tank (S.T.I. P-3). LST 1 has a 12,000-gallon capacity and LST 2 has a 25,000-gallon capacity. Both tanks have an interstitial space with a leak detection monitoring system to allow continuous monitoring of the interstice for the life of the tanks, a rectangular piping containment sump, and a Protection Prover 2 (PP2) cathodic protection monitor test station.

Each tank is equipped with a Flygt CP 3127 HT submersible pump or equivalent, which transfers the leachate from the tank to the tanker trucks located at the loadout pads. The pump control panel is located adjacent to the loadout pad to allow the tanker truck driver to turn the pump on and off as required.

Leachate Tank Inspections

Inspection of the leachate storage tanks consists of daily, weekly, monthly, annual, and semi-annual activities. Daily inspection of the tanks involves checking and recording the current leachate level (form in Appendix A-5). The leachate levels are estimated by lowering a water meter into the tanks and recording the measurement from the top of the riser to the level of liquid within the tanks. This measurement can then be correlated to charts for each tank to estimate the stored gallons of leachate. The weekly inspection involves monitoring of the dual contained inlet and outlet piping for signs of leakage, monitoring of the interstitial space sensor and checking of the cathodic protection terminals to ensure that the wiring and terminals are in good working order (form in Appendix A-6). Each month, the Autodialer, high level and containment chamber alarms will be checked to ensure proper functioning (form in Appendix A-7). The semi-annual inspection will involve testing the cathodic protection systems and monitoring the interstitial space by checking the functionality of the leak detection sensor (form in Appendix A-8). The leak detection sensor will be checked by removing it from the tank and subjecting it to water; an alarm will be produced from this action, if the sensor is in good working condition.

Leachate Loadout Pad Inspections

Prior to every use, the loadout pad drain will be checked to ensure that if a spill were to occur, the pipe will allow flow back to the storage tank. On an annual basis, the leachate loadout pads for LST 1 and LST 2 will be checked to ensure proper functioning (form in Appendix A-9). The concrete will be assessed for cracks and deterioration,

the sump will be assessed for operational grate, cracks and deterioration and the drain pipe will be checked for clogging.

Leachate System Alarm Procedures

In the event that an alarm has been activated, the facility operations manager will initiate a log stating the date, time, which alarm has been activated and the subsequent repair to deactivate the alarm (form in Appendix A-10). In the following section, each alarm that has been provided in either leachate system 1 or 2 will be listed.

The alarms that are sent via the Autodialer will phone each number programmed, and then wait for an acknowledgement. The landfill personnel that acknowledges the alarm will immediately go to the source of the alarm to begin trouble shooting the problem and determining what repairs are required.

8.2.2.2 Leachate System 3 and 4

Leachate generated along the south and western sides of the Closed Landfill is collected in perforated drain pipes, which slope to two solid drain pipes, which combine and gravity drain into LCS 3/4 manhole. The LCS is a dual contained HDPE manhole pump station that was installed in 2011. The LCS 3/4 manhole currently consists of a dual contained HDPE manhole, which contains a submersible pump, level controls and leak monitoring system. The submersible pump allows for leachate to be discharged into a transmission line for transfer directly into the landfill's above ground leachate storage tanks. The manhole allows for approximately 500 gallons of leachate storage between the pump on and pump off levels. The manhole is equipped with a submersible pump and associated level probes. The pump control panel is located adjacent to the manhole with the master controls located within the leachate loadout building. Associated flow meters and valves are installed within the manhole. The manhole has a removable cover to allow for the pumps and level probes to be accessed for service, if necessary. The pump is sized to remove approximately 70 gpm at 35 feet of total head. As part of the Area 7/8 Development the LCS 3/4 manhole will be relocated to the southwest of its currently location, outside the Cell 1 South footprint. As seen on Figure 8-1 the relocated pump station will operate in a similar fashion to the current condition, only it will be installed at a lower elevation.

Leachate Sump and Pumping System Inspections

Inspection of the leachate collection sump consists of daily, weekly, monthly, semi-annual and annual activities. Once a day, the flow meter at the manhole will be read and the amount of leachate generated will be recorded on the form in Appendix A-5. The weekly inspection involves monitoring of the dual contained inlet piping from lines J and K for signs of leakage and monitoring of the interstitial space sensor (form in Appendix A-7). Each month, the high-level alarm and flow meter will be checked to ensure proper functioning (form in Appendix A-7). The annual inspection will involve checking the functionality of the interstitial leak detection sensor (form in Appendix A-9). The leak detection sensor will be checked by removing it from the tank and subjecting it to water; an alarm will be produced from this action if the sensor is in good working condition. The annual inspection will involve checking the operation of the dump port valve (form in Appendix A-9).

8.2.2.3 Leachate System 5

Leachate generated along the north and western sides of the existing facility is collected in perforated drain pipes, which slope to LCS 5. Leachate Collection Sump 5 (LCS 5) is a 6,600-gallon reinforced rectangular concrete tank with approximate outside dimensions of 20 feet long by 17 feet wide by 10 feet high. The tanks drain via gravity to a sideriser sump at the northeast corner Cell 2. The system is dual contained and a pump installed in the bottom of the sump transfers leachate to the transmission line around the north end of the Western Expansion.

In the event of a power outage, two switches are manually turned on in the power production plant and the remainder of the site, including the buildings and leachate systems will be supplied with electricity. If a power

failure occurs at sump 5, an Autodialer has been installed as part of the system to transmit a power failure message to a list of site personnel. The receipt of this message will allow site personnel to initiate the switches.

Leachate Sump and Pumping System Inspections

Inspection of the leachate collection sump consists of daily, weekly and monthly activities. Once a day, the flow meter at the sump will be read and the amount of leachate generated will be recorded on the form in Appendix S-6. The weekly inspection involves monitoring of the outlet piping for signs of leakage (form in Appendix A-7). Each month, the high-level alarm and flow meter will be checked to ensure proper functioning (form in Appendix S-8).

8.2.2.4 Gas Condensate Knockout Tanks

Condensate generated in the gas header system can be discharged at five locations. Four of the condensate knockouts drain liquid directly into LST 1, LST 2 or the leachate transmission lines for discharge into the facility above ground leachate storage tanks. The fifth condensate knockout consists of a tank which collects liquid from the gas header just prior to the gas entering the power production plant or flares. The tank is dual contained and has been equipped with level controls and a leak detection monitoring system. Condensate drains into the tank via a 4-inch HDPE discharge pipe from both the incoming header and the flare knockout pot.

In the event of a power outage, two switches are manually turned on in the power production plant and the remainder of the site, including the buildings and leachate systems will be supplied with electricity. If a power failure occurs at the condensate knockout tank, an Autodialer has been installed as part of the system to transmit a power failure message to a list of site personnel. The receipt of this message will allow site personnel to initiate the switches.

Condensate Knockout Tank Operation

The condensate knockout tank was manufactured by Highland Tank and Manufacturing Company. The tank drawings and information are provided in Appendix A5. The tank is a double-wall S.T.I. P-3 steel underground storage tank with fiberglass reinforced polyester resin coating for corrosion resistance. The tank has a 5,000- gallon capacity. The tank has an interstitial space with a leak detection monitoring system to allow continuous monitoring of the entire interstice for the life of the tank, and sacrificial anodes have been attached on each end of the tank for corrosion protection.

The tank is equipped with a Flygt CP 3127 HT submersible pump, which transfers the condensate from the tank to tanker trucks. The pump control panel is located adjacent to the tank and loadout piping to allow the tanker truck driver to turn the pump on and off when required.

Condensate Knockout Tank Inspections

Inspection of the condensate knockout tank consists of daily, weekly, monthly, annual and semi-annual activities. Daily inspection of the tank involves checking and recording the current liquid level (form in Appendix A-5). The liquid level is estimated by lowering a water meter into the tank and recording the measurement from the top of the riser to the level of liquid within the tank. This measurement can then be correlated to charts to estimate the stored gallons of condensate. The weekly inspection involves monitoring of the dual contained inlet and outlet piping for signs of leakage, monitoring of the interstitial space sensor and checking of the cathodic protection terminals to ensure that the wiring and terminals are in good working order (form in Appendix A-6). Each month, the Autodialer, high level and containment chamber alarms will be checked to ensure proper functioning (form in Appendix A-7). The annual inspection will involve testing the cathodic protection systems and monitoring the interstitial space by checking the functionality of the leak detection sensor (form in Appendix A-9). The leak detection sensor will be checked by removing it from the tank and subjecting it to water; an alarm will be produced from this action if the sensor is in good working condition.

8.2.2.5 Routine Maintenance

A schedule for the routine annual flushing and inspection of the leachate collection and removal system has been established to maintain the operational efficiency of the system. Portions of the older leachate collection system at the Closed Landfill do not have a means of access and are not maintained in accordance with this program. Video inspection is not required for the Closed Landfill. The leachate collection and transfer pipes that can be accessed will be cleaned twice annually and be completed on approximately 6-month intervals.. The cleaning will consist of inserting a power washer hose into the pipe with sufficient pressure and volume to remove accumulated sediment and biological growth. Written documentation of the cleaning shall be submitted to the NYSDEC RMME within 30 days of completion of the cleaning. The on-site monitor must be given a minimum of five days notice prior to the cleaning.

Annually, the existing leachate storage tanks, sumps and condensate knockout tank will be emptied for cleaning and maintenance. Notification is to be provided to the NYSDEC on-site monitor a minimum of five days before the planned cleaning activities. The cleaning will consist of inserting a power washer hose (utilized for cleaning leachate lines) down the riser and into the leachate tanks or sump. The washer head (when in operation) will be manually moved around in the risers to agitate sediment buildup on the bottom of the tanks or sumps. This operation will be performed for approximately fifteen (15) minutes. Following agitation, the liquid and solids will be pumped or vacuumed into leachate transfer vehicles for transport to a permitted treatment plant. This cycle of washing and vacuuming will continue until sediment has been adequately removed. Written documentation of the tank cleanings shall be submitted to the NYSDEC RMME within 30 days of the completion of the cleanings.

Additionally, the leachate loadout pads will be maintained on an annual basis by performing the following. The pad and sumps will be pressure washed and vacuumed, the drain pipes will also be pressure washed to ensure no blockages and the concrete portions of the pad and sump will be sealed to prevent corrosion of the concrete surfaces.

Included in Appendix A-11 are typical routine maintenance forms for pipe cleaning and videoing (if necessary), tank and sump cleaning and loadout pad cleaning.

8.2.2.6 Leachate Disposal

Leachate is transported off-site by tanker trucks to a permitted wastewater treatment facility. Currently, the landfill maintains agreements with the Buffalo Sewer Authority WWTP, Jamestown WWTP, and the Steuben County/Bath POTW. The landfill will maintain agreements with at least two (2) treatment facilities. Hauling of leachate is provided by an independent hauler which is capable of transporting the leachate.

8.2.3 Active Landfill (Cells 1 through 8 and Valley Fill) Leachate Collection, Transmission and Storage Systems

8.2.3.1 Leachate Collection System

The Western Landfill, Valley Fill, and Area 7/8 Development areas include separate leachate collection systems. As discussed previously, a primary leachate collection system and secondary leachate collection system will be constructed within each cell. Each of these systems will allow liquid to flow by gravity to a sump in the landfill, and then be pumped out of the landfill and into the transmission and storage systems.

Each primary leachate collection pumps consists of an EPG wheeled sump drainer, model WSD12-2 installed in an 18-inch HDPE sideslope riser. Associated flow meters and valves are also installed within each of the sideslope risers. The riser pipe allows for the pumps to be removed for repair and replacement, if necessary.

Each secondary leachate collection pump consists of an EPG wheeled sump drainer, model WSD2-2 installed in a 12-inch HDPE sideslope riser. Associated flow meters and valves are also installed within each of the sideslope risers. The riser pipe allows for the pumps to be removed for repair and replacement, if necessary.

Leachate Sump Pumping System Inspection

Inspection of the leachate collection sumps consists of daily and monthly activities and are listed in Appendices A-5 and A-7. Once a day, the flow meters for each of the primary and secondary sumps will be read and the amount of leachate generated by each system will be recorded on the form in Appendix A-5. Each month, the high-level alarm and flow meters for every sump will be checked to ensure proper functioning (form in Appendix A-7).

8.2.3.2 Leachate Transmission System

The leachate transmission system is constructed as a dual contained HDPE pipe system, which flows by gravity to the control vault located adjacent to the above ground leachate storage tanks and as shown on the Part 360 Permit Application Engineering Drawings, Sheet 18. From the control vault, the leachate can be directed to either of the storage tanks or directly to the loadout pad. The operation of the control vault and transmission system is discussed below. At several locations along the transmission line, both cleanouts and secondary containment monitoring points are installed to allow for routine inspection and maintenance.

Leachate Transmission System Control/Operation

Control of the leachate transmission system is provided at either the sump pumps or control vault. In the event that the transmission system needs to be repaired or maintained, the following procedure will be followed;

- Each sump pump will be manually turned off;
- The valve in the control vault will be closed to isolate the transmission piping;
- Leachate remaining in the system will be pumped out at an elevation above the highest liquid level in the pipe; and
- The required maintenance (i.e., pipe cleaning) or repair will be completed.

In the event that the leachate transmission pipe needs to be replaced and will remain out of service for more than 24–hours or cause leachate on the primary liner to exceed the 1-foot of head, a temporary leachate transmission system will be installed.

Leachate Transmission System Inspection

Inspection of the leachate transmission system consists of weekly activities that are listed in Appendix A-6. The weekly inspection involves monitoring of the secondary containment ports for signs of leakage.

8.2.3.3 Leachate Storage Tank System

The above ground leachate storage tanks (Tank #1 to the west and Tank #2 to the east) are two approximately 56-foot diameter by 23-feet high (405,366 gallons each) glass lined steel tanks located within a 154-foot diameter by 7-foot high (975,410 gallons) glass lined steel tank. The outer tank system provides the required secondary containment for both primary tanks in the event a failure occurs.

As stated above, the transmission lines are routed through a control vault located within the secondary containment tank, this vault contains the valves required to control leachate flow into or out of the tanks.

The landfill cells will be opened in approximate 3.5-acre areas. The leachate levels in the above ground storage tanks will be maintained at approximately 20 percent of the total volume to contain the 25-year, 24-hour storm during the opening of each approximate 3.5-acre area. When the tank volume reaches 20 percent of the total volume, additional tank trucks will be used until the tank volume returns to 20 percent. During normal operation, where operating cells are sufficiently covered with waste, additional tank trucks will be used when either of the

tanks exceed their designated high level. The additional trucks will be used until the volume can be consistently maintained below the tanks high level.

The secondary containment tank is constructed with a sloped concrete floor to allow for liquid to flow to the center of the tank, where a sump is located. During normal operations, collected stormwater will be discharged into the perimeter swale around the tank via a 2-inch portable construction pump located on the roof of the control vault. The stormwater will be removed daily and after significant rain events (see form in Appendix A-13). As noted on the form, a visual confirmation of the water indicating that it is not contaminated with leachate must be made each time prior to discharging the stormwater. In the case of a small spill or over flow that occurs within the secondary tank, the liquid will be pumped directly into tank trucks or back into the leachate tanks. If either of the primary tanks begins to have severe leakage or a failure occurs, the leachate will be stored in the secondary containment system for subsequent removal. After removing leachate from within the secondary containment tank, the entire floor and sump shall be washed and rinsed prior to collecting and discharging subsequent stormwater.

Leachate Tank Pump Operation

The leachate transfer pumps and panel are located within the loadout building directly adjacent to the loadout pad. The pumps are self-priming centrifugal pumps with 6-inch discharges, each capable of transferring liquid at a 500 gallon per minute rate. The pumps can be used to transfer leachate directly into tank trucks or transfer leachate between the two leachate storage tanks.

Leachate Tank Inspections

Inspection of the leachate storage tanks consists of daily, weekly, monthly and annual activities, which are listed in Appendix A-5 through A-9. Daily inspection of the tanks involves checking and recording the current leachate level and removing stormwater from within the secondary containment tank. The leachate level within each of the tanks will be based upon a digital readout. The weekly inspection involves monitoring of the dual contained inlet and outlet piping in the control vault for signs of leakage, monitoring of each of the primary tanks for signs of leakage and verifying the digital tank level with an actual tank measurement. Each month, the Autodialer, high level and control vault alarms will be checked to ensure proper functioning. On an annual basis, each of the valves and pipes located within the control vault will be inspected and the sensors and alarms will be checked. The control vault concrete will be assessed for cracks and deterioration, the sump will be assessed for cracks and deterioration.

Leachate Loadout Pad Inspection

The loadout pad has been designed to contain an entire tanker truck spill. On an annual basis, the leachate loadout pad will be checked to ensure that the concrete does not have excessive cracks or deterioration (form in Appendix A-9).

Secondary Tank Floor Inspection On an annual basis, the secondary containment tank floor will be checked to ensure proper functioning. The concrete will be assessed for cracks and deterioration, and the sump will be checked for operational grate, cracks and deterioration (form in Appendix A-9).

8.2.3.4 Routine Maintenance

A schedule for the routine annual flushing and inspection of the leachate collection and removal system will be established to maintain the operational efficiency of the system. The leachate collection and transfer pipes will be cleaned annually. The cleaning will consist of inserting a power washer hose into the pipe with sufficient pressure and volume to remove accumulated sediment and biological growth. Written documentation of the cleaning shall be submitted to the NYSDEC RMME within 30 days of completion of the cleaning. The on-site monitor must be given a minimum of five days notice prior to the cleaning.

In addition to the cleaning, routine video inspections of the leachate collection and transfer lines is required by the NYSDEC, to be performed on a biennial basis. The video inspections shall be recorded and maintained on file at the landfill. A written summary of the inspection shall be submitted to the NYSDEC RMME within 30 days following completion of the video inspection. The on-site monitor must be given a minimum of five days notice prior to performing the video inspection.

Annually, the primary leachate collection sumps and leachate storage tanks will be emptied for cleaning and maintenance. Notification is to be provided to the NYSDEC on-site monitor a minimum of five days before the planned cleaning activities. The cleaning will consist of power washing the interior of both primary tanks and removing solids that have collected at the bottoms of the tanks. Following washing, the liquid and solids will be pumped or vacuumed into leachate transfer vehicles for transport to a permitted treatment plant. This cycle of washing and vacuuming will continue until sediments have been appropriately removed. Written documentation of the tank cleanings shall be submitted to the NYSDEC RMME within 30 days of the completion of the cleanings.

Additionally, the leachate loadout pad and sump, secondary containment floor and sump and control vault interior and sump will be maintained on an annual basis by performing the following tasks. The loadout pad, secondary containment floor, control vault and their respective sumps will be pressure washed and vacuumed, the concrete portions of each will be sealed to minimize deterioration of the concrete surfaces.

Included in Appendix A-12 are typical routine maintenance forms for pipe cleaning and videoing, tank and sump cleaning and loadout pad cleaning.

8.3 Leachate Storage and Treatment Contingency

Leachate storage at the Closed Landfill site is currently provided by two underground storage tanks (LST 1 and 2) with the remaining leachate flowing to LST 3/4 manhole and LCS 5, which are both pumped into the Western Landfill leachate transmission system. Leachate generated in the Western Landfill and Valley Fill Landfill areas flows by gravity to two above ground storage tanks.

Leachate will be pumped from the on-site storage tanks to a tank truck and transported for treatment at local wastewater treatment facilities. If a situation arises where the tanks are at the upper capacity limits as described below, additional tank trucks will be rented or contracted to increase the daily hauling quantities.

Presently, a majority of the leachate hauling is performed by a subcontractor and is disposed at both the Buffalo Sewer Authority wastewater treatment plant (WWTP) and the Jamestown WWTP. The contractor has the ability to add additional trucks as required. The contracts for trucking and disposal are included in Appendix C of this manual. Additional hauling will be added when the level in existing LST 1 and 2 exceeds 80 percent of the capacity and when either of the above ground leachate tanks exceeds 75 percent of capacity. As stated in Section 8.2, backup hauling may be utilized at different leachate tank volumes depending upon the current filling sequence and open cell areas

The contingency plan for the above ground leachate storage tank area is as follows: (i) spillage contained within the secondary containment structure will be pumped into the leachate storage tank; and (ii) if the leachate storage tank is ruptured, temporary tanks will be brought in to store leachate and the secondary containment structure will be emptied by tanker trucks to allow for the tanks to be repaired. For LST 1 and 2, if leachate is detected in the secondary containment, the landfill pumps will be shutoff and the tank will be inspected for leaks. Prior to a full inspection, current leachate will be hauled away in tanker trucks. Upon completion of the inspection, a tank remediation plan will be developed and implemented immediately. If the tank is to be shut down for any period of time, a temporary tank will be brought in to store leachate collected from the landfill.

8.4 Spills or Leakage

The leachate collection tanks are monitored daily for leachate elevation. Before the leachate level in the underground landfill tanks reach 90 percent of tank capacity, the leachate is pumped into a tank truck. As a result, the potential for spills from the tanks is limited. The leachate level in the above-ground storage tanks will be maintained at or below 75 percent of the total storage capacity.

If leachate spills during transfer operations, the spill shall be contained as quickly as possible. Small spills shall be contained with the facility's onsite spill equipment (i.e., speedi-dry and containment socks). Large spills will be contained through low permeability material dike construction. Spills shall be cleaned and any contaminated soil shall be removed and disposed of within the landfill.

In the unlikely event that it is determined that a leachate collection tank is structurally faulty and requires replacement, the replacement work shall be scheduled for a period of time in which precipitation is not expected. A temporary tank will be brought on to the site to provide storage prior to removal of the existing tank. The existing tank will then be pumped down and removed. If any soil has become contaminated due to the tank leak, it will be removed and disposed of within the landfill. A new tank will then be installed and tested according to the approved construction Technical Specifications and QA/QC Plan (Part V of the permit application) and applicable Part 360 regulations. Upon acceptance by the NYSDEC, the storage tank will resume its operation.

Surface impoundments in the form of sedimentation basins are present to the southwest and southeast of the landfill site. Leakage or spills (overtopping) of these impoundments is not a major concern at the facility as these are surface water control facilities. Overtopping of the basins would result in sheet flow of water away from the basin and is not expected to have an impact on the surrounding area.

8.5 Unavailability of Leachate Treatment Facility

Currently, the Landfill has approvals to dispose of the leachate at the Buffalo Sewer Authority Treatment Plant, the Jamestown WWTP and the Steuben County/Bath POTW. The landfill will maintain agreements with at least two (2) treatment facilities. (See Operations and Maintenance Manual for copies of discharge permits).

In the very unlikely event of the inability of the above wastewater treatment facilities to handle the leachate treatment needs, or if a facility stops acceptance of the leachate, alternative wastewater treatment facilities will be contact for disposal.

8.6 Exceedance of Allowable Secondary Liner System Leakage

WMNY will monitor and record flow from the secondary leachate collection sumps. If the measured primary liner leakage rate exceeds allowable primary leakage rate (based on a 30-day average), WMNY will:

1. Notify the Department in writing within seven days of the determination of exceedance.
2. Submit a preliminary written report to the Department within 14 days of the determination that details the volume of liquid and the suspected source, if known. The report will be based on a preliminary investigation that will include, a review of the preceding two months of operations records and any relevant information gained from interviews with operations staff and a non-intrusive site investigation. Daily pump flows from the secondary sump will be reviewed to determine if the increase was sudden or gradual. The report will include an assessment of any unusual weather events such as sudden thaws or precipitation events that may have contributed to the exceedance.
3. Within 20 days of the determination, WMNY will submit a report which presents the results of: i) a review of construction and operations records to assess if waste placement (i.e., applied load) is causing an increase in consolidation water in the secondary leachate collection system, and ii) an evaluation of liner

construction records to identify any areas of concern (i.e., failed test result and corrective measures taken) which may warrant further investigation.

4. Within 30 days of the determination, WMNY will submit a report to the Department that contains the following:
    - An assessment of whether the actions taken to-date explain the exceedance and data, which shows whether, based on a 30-day running average, the actual leakage rate remains above the allowable action leakage rate;
    - Identification of any other short-term or long-term actions to be taken to reduce the excessive leakage rate; and
    - An assessment of whether waste receipt should cease or be curtailed, whether any waste should be removed from the cell for inspection, repairs, or controls, and whether or not the cell should be closed or remediated; and
    - Monthly thereafter, as long as the flow rate in the secondary leachate collection and removal system exceeds the allowable leakage rate, WMNY will prepare a report that summarizing the results of any remedial actions taken and actions planned in order to reduce the leakage to an allowable level.

9.0 ODOR CONTROL PLAN

This section outlines best management practices (BMP's) to be utilized at Chaffee Facility applying sound and consistent procedures for managing the landfill gas system assessing odors and/or odor notifications.

The plan will describe procedures under which it will operate the Landfill Gas Collection system and that facility personnel shall use to identify and address odor issues at the Chaffee Facility. By implementing proactive odor control measures, off-site odor may be mitigated through proper operational management and continued efforts by the operator. The Landfill's Operations Manager is responsible for the implementation of the Odor Control Plan.

9.1 ODOR/LANDFILL GAS SYSTEM MANAGEMENT

In general, in order to control odors WMNY utilizes operational controls such as cover soils or cover systems, and then moves to active (or enhanced) landfill gas extraction as filling progresses. Some examples of odor control techniques are presented on the following pages.

9.1.1 Potential Odor Sources from Landfill Operations

The majority of the waste accepted for disposal at the Chaffee Facility is mixed MSW. Mixed MSW has an organic waste component that has the potential of being odorous as the organic component begins to decompose (rot). Loads of MSW that have set in a transfer trailer over the weekend tend to be more odorous than loads that are less than a day old. The Chaffee Facility does occasionally accept stabilized wastewater treatment plant (WWTP) sludge. However, even with stabilization in accordance with the Criteria for Sludge Stabilization for Disposal in New York State (DSH-SW-03-14), established September 24, 2003 (revised October 1, 2012) by the NYSDEC the WWTP sludge might have some odor.

9.1.2 Waste Screening

The Chaffee Facility has developed a standard operating procedure concerning wastes that have not been previously accepted for management at the landfill that might be odorous. Under the standard operating procedure, potentially odorous waste will be taken as a "test load" where a full or partial load of the waste will be brought to the Chaffee Facility for management. The waste is examined during the "test load" period to determine what, if any, special procedures will be needed to manage the waste to minimize impacts due to odors. After the "test run" a determination is made as to whether or not the waste is acceptable for management at the facility. Odors generated by waste material will be controlled by the application of 6 inches of operating cover or alternate material.

9.1.3 Operational Mitigation Measures

The Chaffee Facility currently has a number of procedures that are implemented on a daily basis to control odors leaving the facility. The odor control program components consist of activities, which are performed as standard operating procedures, and others, which are implemented on an as needed basis. A summary of the program follows:

- The landfill areas are equipped with vertical gas extraction systems, which operate continually during disposal operations to minimize fugitive landfill gas and odor emissions.
- Additional landfill development areas will be constructed with vertical and horizontal gas extraction systems.

- Waste is covered daily with synthetic materials, soil, or other approved alternate operating cover materials.
- Additional soil cover is placed over waste, if odors are not suppressed with the use of typical operating cover techniques.
- Waste materials, such as sludge, which have the potential for being particularly odorous are not accepted past 2:30 p.m. in order to avoid these materials being too close to the surface at the end of the operating day.

The landfill will apply odor control media to waste materials as needed. The odor control media, such as EcoCare Odor Control Solutions or equivalent, will be applied in accordance with the manufacturer's recommendations for odor control.

Following application, traffic will be minimized over the area of application to limit disruption and the subsequent potential release of odors. If necessary, additional odor control media will be applied to areas that have been disturbed by construction activities.

9.2 ODOR MONITORING, RESPONSE AND ANALYSIS

An odor complaint program has been established for the Chaffee Facility and includes the following components:

1. The Chaffee Facility will maintain a 24-hour per day local telephone number for the receipt of landfill odor complaints from residents of the Town of Sardinia. The telephone number is (716) 492-3432.
2. The Chaffee Facility will notify community and government centers of the availability of the telephone number.
3. The Chaffee Facility will log incoming telephone calls and record the identity of the caller, including name, address and phone number and the following information if it is available from the caller; the location, nature and duration of the odor. The Chaffee Facility will record the date and time of the complaint and the meteorological conditions (including, but not limited to, wind direction and temperature).
4. Upon receipt of the complaint, the Chaffee Facility will investigate the complaint in order to determine the source of the odor. This investigation will be performed within 24 hours of the start of the following operating day from the incoming complaint call. In making the assessment, the Chaffee Facility will consider the nature of the waste being disposed of at the landfill; landfill gas and leachate collection and transfer activities; the operating, intermediate and final cover material being used, and other activities which may be contributing to potential off-site landfill odors.
5. If the Chaffee Facility determines the source of the odor, it will take corrective action to mitigate the odor problem. Mitigation may include decreasing the size of the working face of the landfill; increasing the use of flares and landfill gas treatment facilities; modification of leachate collection activities; evaluation and modification, if necessary, of operating and intermediate cover materials; use of odor neutralizers; restriction or elimination of waste streams or operational changes associated therewith and other measures which the Chaffee Facility determines will reduce off-site impacts.
6. The NYSDEC may require the Chaffee Facility modify, upgrade or expand gas collection capabilities within the landfill if off-site landfill gas odors are determined to be an off-site nuisance by the NYSDEC.
7. The Chaffee Facility will provide a report to the NYSDEC of the complaints/reports received, information recorded from the complaint/report and the action taken or proposed. These reports will be readily submitted via email to the NYSDEC as they are received. The results of odor investigations will also be forwarded to the complainant.

9.3 SCALING PLAN FOR ODOR CONTROL

At this time, further increases in waste volume or changes in accepted waste characteristics which would increase the potential for odor issues are not anticipated. In the event that changes are proposed which would increase the

amount or type of waste accepted at the Facility, the potential for increased odors due to these changes will be considered and facility practices may be modified to minimize off-site odors.

10.0 GAS MONITORING & EMISSION CONTROL PLAN

10.1 LANDFILL GAS SYSTEM OPERATION

The landfill gas (LFG) collection system at the Facility serves two important purposes: helping to control odor from landfill gas emissions and to ensure that explosive gas emissions do not leave the site and do not build up to dangerous levels. The gas extraction system is continuously operated. The Landfill's landfill gas collection system currently consists of three major components: the collection system (vertical LFG extraction wells, leachate cleanout connections, and conveyance pipe), the blower/flare station, and the condensate management system. Additionally, a landfill gas to energy (LFGTE) facility is located at the landfill as an alternative means for destruction of LFG through beneficial use in generating fuel gas. A site plan showing current LFG system components is maintained by the landfill. The LFG components shown on this plan are evaluated annually (or more often if required based on monitoring results) for efficacy and function to plan for necessary system upgrades. The active gas collection system for the Area 7/8 Development will be similar to the system that is currently installed, will be designed to prevent the build-up of excess LFG within the landfill and to control subsoil gas migration or surface emissions to the atmosphere.

10.1.1.1 Gas Collection/Conveyance System

Through the construction and operation of the Area 7/8 Development, LFG will continue to be collected through a series of vertical and horizontal HDPE collector pipes placed in the waste mass, and connections to the leachate cleanouts. The collectors are interconnected by a conveyance pipe which conveys the collected LFG to a perimeter header. This header leads to the blower/flare station or the LFGTE facility for compression into High BTU gas product in order to control air emissions and landfill gas odors. Additional wells and collectors are added as the landfill development proceeds, and the site plan is updated to reflect these additions. Valve adjustments at the collection points are necessary to extract the maximum amount of LFG while maintaining good gas quality and minimizing air infiltration.

WMNY will install horizontal landfill gas collection pipes within the waste to provide early collection of landfill gas and for enhanced odor control. These horizontal gas collectors will be connected to the new landfill gas collection header for transmission of the collected gas. The Part 360 Permit Application Engineering Drawings Sheet 35 shows a conceptual layout of the horizontal landfill gas collector system. The area covered by the horizontal gas collection system will vary based on operations, but it is expected that the system will be constructed when about 5 to 8-acre areas of waste are at the appropriate grade. Typical lateral spacing for the perforated horizontal collection pipes will be 100 feet. The vertical spacing of the gas collection pipes will be approximately 20 feet.

The horizontal gas collectors will consist of 6-inch diameter, perforated HDPE pipe, connected to solid HDPE pipe. The perforated collection pipe will be placed in a shallow trench excavated a few feet below the working landfill surface. The collection pipe will be surrounded by tire chips or a similar material sized to prevent clogging of the pipe perforations. The trench will be sloped toward the middle of the landfill to allow for liquid/condensate drainage. A geotextile separator fabric will be placed over the trench, to prevent the overlying waste material from clogging the porous media surrounding the pipe.

Landfill gas flow control and monitoring locations will be provided for the horizontal gas collection system. Monitoring ports and control valves will be installed on the upstream side of the connection to the 18-inch header, to allow for sampling and flow control of the landfill gas collected by the horizontal collection system. WMNY will monitor for both gas collection efficiency and odor control.

Vertical landfill gas collection wells will be installed into the waste as required and when areas of the landfill are closed. The header system servicing the landfill gas collectors will be connected to the existing landfill gas flare and to the on-site power generation plant.

Collected LFG is routed from the landfill areas through a gas header and directed to the Chaffee Facility Renewable Energy Facility (REF) which consists of eight (8) Caterpillar 3516 engines. Remaining excess LFG is combusted in one (1) 99 MMBtu/hr (~ 3,300 cfm) enclosed flare, and one (1) 27.3 MMBtu/hr (~ 910 cfm) open flare.

10.2 AIR/ODOR MONITORING

Due to the complex nature of LFG generation, ongoing adjustments are typically needed to maximize the collection system's effectiveness and balance the system. Increasing the vacuum at a collection point typically causes the flow to increase, methane concentration to decrease, and the oxygen and balance gas (nitrogen) concentrations to increase. Decreasing the vacuum generally results in the opposite effect. Each valve should be adjusted to the maximum flow rate possible while maintaining the gas quality, temperature, and static pressure within the specified target ranges. Wells with parameters that cannot be maintained within the acceptable ranges, despite repeated adjustment, are further analyzed for possible operation outside of the ranges listed.

As described in Section 9.0 of this manual, if the Chaffee Facility identifies off-site odor impacts and determines the source of the odor, it will take corrective action to mitigate the odor problem. Mitigation may include decreasing the size of the working face of the landfill; increasing the use of flares and landfill gas treatment facilities; use of odor neutralizers; modification of leachate collection activities; evaluation and modification, if necessary, of operating and intermediate cover materials; restriction or elimination of waste streams or operational changes associated therewith and other measures which the Chaffee Facility determines will reduce off-site impacts.

10.3 LANDFILL GAS RECOVERY FACILITY

As stated above, extracted gas is combusted using either the enclosed flare or power production plant. Gas is primarily combusted by the eight internal combustion engines located at the power production plant. These engines are connected to electric generators, which generate electric power for distribution on the power grid. The enclosed flare is used when excess gas is being generated or during power plant shutdowns. The power production plant allows the Site to destroy potentially harmful landfill gases while managing odor and providing a positive use from this necessary process. The power production plant is expected to continue to operate as long as a sufficient amount of landfill gas is being generated to offset the plant's operational costs and justify continued use.

11.0 WINTER & INCLEMENT WEATHER OPERATION PLAN

11.1 WINTER OPERATIONS

11.1.1 Freezing Conditions

The landfill has not experienced problems in obtaining soil cover material due to freezing conditions. Working a wide area and staying ahead of the frost has enabled Equipment Operators to obtain soil cover material year-round. Soil cover material for winter months is usually stockpiled. As a precautionary measure, stockpiling of soil cover is accomplished before the onset of the winter months. When AOC is used, soil cover material requirements are greatly reduced. If icy or freezing conditions create potentially dangerous operating conditions, the Operations Manager will determine if it is necessary to either temporarily stop operations, or modify operations as needed.

11.1.2 Snowfall

If snowfall occurs overnight, an Equipment Operator is assigned to arrive at the site early and is responsible for snow removal. Snow removal activities will start immediately upon arrival. The available on-site equipment is adequate to remove accumulated snow from access roads and operational areas.

In the event of extremely heavy snow, the Operations Manager will decide if it is necessary to modify or temporarily suspend operations until snow removal on access roads and the disposal areas permit continued operation. It may be determined that it is necessary to make the following modifications to operations; limiting the size of the working face; moving the working face to a protected area; cessation of non-essential earthwork, etc. If snowfall should become more severe, it may be determined that operations should be temporarily suspended. It is expected that if a snowstorm occurred that was severe enough to suspend operations at the landfill, solid waste collection activities throughout the area would also be temporarily ceased until an improvement in the weather conditions enabled reinstatement of services.

Following cessation of the storm, landfill equipment would be utilized to remove accumulated snow from access roads and operational areas, and snow banks would be arranged in a manner to promote adequate drainage when melting occurs.

11.2 INCLEMENT WEATHER

11.2.1 Heavy Rains

Control of surface water drainage by drainage swales, diversion swales, downchutes and sediment ponds, along with the use of gravel for operational haul roads, provides continued access to the site during these weather conditions. In the case of heavy rains, the Operations Manager may determine that it is necessary to either modify operations or temporarily suspend operations until improved weather conditions allow re-establishment of operations. In the event of heavy rain, modifications to operating procedures may include; minimizing the size of the work face, modification of truck access to the working face, and cessation of non-essential earthwork.

During a heavy rainfall event, landfill personnel will regularly check culverts, and sedimentation basins for debris, which may be blocking water flow. During the daily inspections the Operations Manager will observe the stormwater management system, and operating, intermediate, and final cover areas for erosion. If problems are detected with these, a prompt repair will be made to mitigate future problems.

11.2.2 Electrical Storms

If necessary, landfilling activities will be suspended for the duration of the storm for the safety of field personnel. Refuge should be taken in a landfill building, or in rubber-tired vehicles. Information regarding operations of the landfill's leachate and gas collection systems during power outages can be found in the Operation Related Contingency discussion in Section 15.0 of this manual.

11.2.3 Windy Conditions

Litter will be contained as close to the working area as possible. Portable fencing is currently used to control papers at the working area and is located downwind. Woven or chain-linked wire and netting are appropriate for this purpose. Fencing is placed strategically downwind and is moved as necessary. In addition, steps will be taken to clear fences of litter before they become inundated, thus increasing their effectiveness. Restriction of the active working area to as small an area as possible will assist in the control of litter. Small amounts of cover material can be spread on the solid waste during the on-going operation when wind presents a problem. Picking up of windblown paper and litter from trees, fences, fields, etc. is a routine part of site operations. Additional personnel are called in to manually pick up blowing litter as needed. The Operations Manager will suspend operations when windblown litter is leaving landfill property, or when winds exceed sixty (60) miles per hour.

12.0 RESIDENTIAL DROP-OFF OPERATION

Presently the landfill provides disposal services for MSW, trash, and recyclables to the Town of Sardinia residents on the last Saturday of each month. Additionally, individuals may dispose of MSW, trash, and recyclables for a fee, during regular business hours, Monday through Friday, at the convenience station located just west of the scale house. At no time are small or private vehicles allowed on the permitted landfill.

The on-site convenience station/drop off area utilized by customers shall be maintained in a clean and litter free condition. As full containers are removed, spilled debris shall be cleaned up. The area shall be cleaned up at the end of each day. Recycled materials, including appliances, shall be removed periodically. No excessive accumulation will be permitted. The Scale Operator is responsible for identifying unacceptable waste.

13.0 ROLL-OFF STORAGE AREA

The roll-off storage area is located north of the scale house and is indicated on Figure 1-1. The area consists of a compacted gravel area approximately 60,000 square feet in size. This area allows WMNY haulers to deposit their containers at the landfill before, after and during operational hours, so that the Operations Manager can efficiently control waste disposal at the working face. The facility will operate the roll-off storage area in the following manner for shipments of non-putrescible industrial and commercial waste:

- The time between delivery and emptying will not exceed ten days.
- Containers, trailers, and roll-offs will remain on or attached to the vehicles that transported them;
- The containers will be covered with waterproof tarps and will not be opened during the storage period.

14.0 RADIOACTIVE WASTE DETECTION PLAN

Prior to accepting waste as part of the Area 7/8 Development, the Facility will install a fixed radiation detection system at the scale allowing vehicles transporting waste to the facility to be monitored for radioactive materials. In accordance with Part 363-7.1(o)(7), low-level radioactive waste, processed and concentrated naturally occurring radioactive material (NORM) waste, or nuclear accelerator-produced radioactive material (NARM) waste as defined in Parts 380, 382, and 383 that are required by Parts 380 and 383 of this Title to be disposed of at a Part 383 permitted facility shall not be accepted or approved for disposal at the landfill. Additionally, wastes, excluding firebrick, which exhibits a concentration greater than 25 pCi/g of radium-226 shall not be accepted or approved for disposal at the landfill (6 CRR-NY 363-7.1(o)(8)). The following sections describe the plan and procedures for monitoring and proper handling of incoming radioactive materials.

14.1 Radioactive Waste Monitoring Protocol

This protocol outlines the procedures to screen loads for unacceptable levels of radioactivity. The procedures outlined in this section apply to all waste loads screened at the site.

Each inbound load that enters the landfill shall be screened for radioactivity using the fixed radiation detection unit, located at the scale/weigh station. This monitor is a “drive through” system that scans the waste hauling vehicles as they pass between the two detectors at slow speed or as they stop on the scale.

As a truck passes through the detectors at the scale, the radiation monitoring system measures the radiation level emitted by the truck in kilo counts per second (kcps). The number of kcps over the normal “background” radiation level of the area is compared to the alarm set point indicated on the digital read-out in the scale house.

In the event the alarm sounds, the scale house attendant will immediately notify the truck driver to stop. The scale house attendant shall record the reading on the Radiation Monitor Alarm Record (included in Appendix A-15) and instruct the driver to pull off the scale and park in the designated area away from the detectors.

It is possible that the driver may be the source of the radiation. If the driver agrees, the driver will be instructed to walk near one of the detectors to determine if he/she is the source of the alarm and had received a recent nuclear medicine procedure. If the alarm sounds due to the driver’s procedure, an alternate driver will be used or the driver shall pull the truck back onto the scale and park it and then walk at least 75 feet away so that the monitor reading of the truck alone can be determined. If the truck alone does not cause an alarm, it may pass through. There is no restriction on the driver if he/she is the source of the alarm due to a medical procedure. The scale house attendant or other authorized WMNY personnel shall complete the Radiation Monitor Alarm Record and file it.

If the alarm is due to the load, the truck will again be driven through the detectors and stopped so that the detectors are centered on the load. A stabilized reading over a minimum of 30 seconds will be obtained. If only the sigma alarm was triggered initially, which indicates a rapid change in radiation level, the load shall be centralized and a stabilized reading obtained. If the stabilized reading is less than the investigation level, the load will be considered acceptable and the load will be accepted at the landfill. If the initial alarm reading exceeded the investigation level and if after the stabilized reading is obtained the result still exceeds the investigation level, refer to the details in Section 14.2.

Instances of alarms in which the radiation detector is triggered by a waste load must be documented and reported to the NYSDEC as soon as practical, but within 24 hours. The documentation and reporting provided to the NYSDEC shall include spectra obtained from a hand-held radiation detector. Recorded information must include the date the waste was received, transporter name, origin of the waste, truck number or other identifying marking,

detector reading, disposition of the waste, and date of disposition. Each instance shall also be documented in the landfill's annual report submitted to the NYSDEC.

Possible types of materials with elevated levels of radioactivity include:

- NORM – Naturally-Occurring Radioactive Materials that have not been concentrated or enhanced such as rock, non-commercial use gypsum (plaster or fertilizer), sand blast media, ceramics (firebrick or pottery), colored glass, etc. NORM determinations will be made by the NYSDEC Radiation Materials Management (RMM) personnel. The investigation alarm setpoint is to be set at not less than two (2) times but not greater than five (5) times background radiation levels, per 6 NYCRR Part 363-7.1(a)(5)(ii). If NORM is suspected to have caused an alarm, the procedures in Section 14.2 will be followed for potential acceptance of the material.
- Processed and Concentrated Naturally-Occurring Radioactive Materials such as filter or evaporator sludges, furnace slag, titanium or fertilizer purification wastes, etc. in which the concentration of radionuclides has been increased over the natural material's concentration in the environment by application of heat, filtration or chemical extraction. Such materials may **NOT** be accepted into the landfill.
- Medical Use-Radionuclides such as iodine-131, iodine-125, technetium-99m, thallium-204, and other short half-life nuclides may be accepted into the landfill if they have been excreted from a medical patient (such as into a diaper). Such materials in vials, syringes, etc. improperly disposed of by a radiopharmacy or hospital directly into the trash may **NOT** be accepted. If Medical Use-Radionuclides that have been excreted from a medical patient are suspected to have caused an alarm, the procedures in Section 14.2 will be followed for potential acceptance of the material.
- Industrial, military or commercial use radionuclides may **NOT** be accepted into the landfill. Examples are luminous dials or markers (radium), static eliminators or thickness gauges (strontium-90, krypton-85, etc.), non-destructive testing or medical sources (cesium-137, cobalt-60, iridium-192, etc.), uranium counterweights, exit signs, commercial smoke detectors, thoriated aircraft engines, welding rods, etc. Inadvertent or purposeful disposal of such materials must be reported to the NYSDEC and NYSDOT.
- Liquids containing elevated concentrations of radioactivity, such as gas well brine, are **NOT** acceptable for disposal.

Immediately after the investigation, the staff member will notify the District Manager or Operations Manager via telephone or email if such officials desire such notification. The site staff will work cooperatively with the NYSDEC RMM to determine the best course of action at the time of the alarm notification.

If the situation arises where the drive-through radiation detectors become inoperable, the facility will use handheld meters to perform the initial scan on the inbound vehicles.

If a hauler drives away after an alarm and before the load has been investigated, landfill personnel shall call NYSDEC RMM and Region 9 office and provide available information on the hauler in question.

WMNY staff will receive training on an annual basis related to the radiation system operational procedures for the fixed radiation detection system and hand-held radiation detector. Radiation system training will also include manufacturer provided training or equivalent on system and equipment operation and troubleshooting. Training records will be maintained on site and be available for NYSDEC inspection upon request.

The following is a summary of the monitoring and reporting requirements associated with radiation monitoring at the site:

- Measurement of portal background radiation on a daily basis. Measurement of hand-held radiation detector background radiation prior to the detector use. These measurements shall be tracked on the Radiation Detector Log Form (included in Appendix A-16)
- Weekly field checks of the portal radiation detectors utilizing a known source (e.g., CS-137) must be measured and tracked on the Radiation Detector Log Form (included in Appendix A-16). The field checks will be performed with a known source at a consistent location equidistant from both detectors and at a fixed height so that the check is repeatable,
- Weekly field checks and "at use" operational checks of the hand-held radiation detector utilizing a known source (e.g., CS-137) must be measured and tracked on the Radiation Detector Log Form (included in Appendix A-16). A 5-minute background reading at least 100-feet away from any waste vehicles and a 5-minute known source check shall be performed.
- The portal system shall be calibrated at least annually, or more frequently as recommended by the manufacturer, by a qualified contractor. Hand-held radiation detectors shall be calibrated at least annually, or more frequently as recommended by the manufacturer, by a qualified contractor.
- Calibration records will be maintained on site and be available for NYSDEC inspection upon request.
- Each instance where the radiation detector is triggered must be documented on a tracking form and reported to the NYSDEC RMM and the Region 9 office within 24 hours. Information must include the date waste was received, transporter name, origin of the waste, truck number, detector reading, disposition of the waste, and date of disposition.

14.2 Procedure to Accept or Reject Radioactive Loads

This assessment procedure is provided to guide the decision-making process in accepting or rejecting loads based on their radioactivity content.

The procedure to be used by landfill management personnel to assess a load causing an alarm condition is as follows:

- Investigation level: The investigation alarm setpoint of the radiation detector must be set at least two times but no greater than five times site background radiation levels*, per 6 NYCRR Part 363-7.1(a)(5)(ii).
- Rejection level: Any amount of detectable NORM containing Ra-226 at > 25 pCi/g, or other regulated materials such as TENORM and others indicated in 6 NYCRR Parts 363 and 380, shall be rejected. The determination shall be made in consultation with the NYSDEC RMM.

  *Upon installation of the radiation monitor, a site background radiation level shall be established. Establishing background shall include averaging the daily background level readings over a minimum 10 working days and a daily background reading will be obtained and recorded.

1. If the investigation level is exceeded, landfill personnel will obtain spectrum analyses using a hand-held radiation detector. Three five (5) minute spectrum readings will be collected and will include:
   - A 5-minute background reading (at least 100-feet away from waste vehicle),
   - A 5-miunte reading at the unknown source (waste vehicle), and
   - A 5-minute reading of a known source.

   Maximum dose rates (microrem / hr) will also be collected at the waste vehicle and 100-feet away from waste vehicle. The three spectrum readings and two dose readings will be provided

to the NYSDEC RRM and the Region 9 office along with visual observations and generator information.

2. The NYSDEC RMM shall make the determination for waste loads greater than the alarm setpoint (i.e. portal readings above the investigation level) and will advise WMNY whether the waste load is acceptable for disposal or must be rejected.
3. If the readings are greater than the Rejection Level, as determined by the NYSDEC RMM, then the load shall be rejected. If the load is rejected, the vehicle containing the radioactive material may not leave the facility without written NYSDEC approval and an authorized United States Department of Transportation exemption form obtained from the NYSDEC.
4. In the event of a load being rejected, the vehicle containing the rejected load must be staged in the designated area until the time the above condition (3) has been met. Vehicles containing rejected loads must be removed from site within 1 week, unless an extension is approved by the NYSDEC.
5. For any alarm, the “Radiation Monitor Alarm Record” (see Appendix A-15) must be completed and submitted to the NYSDEC RMM and Region 9 and included in the Part 360 Annual Report.

15.0 EMERGENCY RESPONSE

The Chaffee Facility is responsible for implementation and execution of an Emergency Response Plan, which covers unexpected events during the construction and operational life of the Facility. Information required under 6NYCRR Part 363-4.6(o) and Part 360-16(c)(4)(iv) is included in Emergency Response Plan, including for emergencies involving landfill gas migration, fires, and more.

In the event of a significant emergency or natural disaster, it may be desirable for the Facility to expand operating hours or provide additional services. If it is desirable and agreeable to the NYSDEC, arrangements can be made with the Landfill Supervisor to accommodate such conditions. The expanded hours or services will be determined on a case-by-case basis as agreed with NYSDEC.

Emergency contact/coordinator information is given below as part of Section 15.1 with detailed comprehensive agency contact information found in Appendix D.

15.1 EMERGENCY RESPONSE PROGRAM DETAILS

This emergency response program provides guidance to on-site personnel (on-site personnel refers to waste haulers and employees at the site) in the event of an emergency at the landfill.

15.1.1 Emergency Phone Numbers

The telephone numbers to emergency response agencies such as the local police department, fire department, ambulance, hospital and the NYSDEC will be conspicuously posted in areas where telephones are available at the landfill. A list of these telephone numbers is included as follows:

General Emergency Contact	911
Erie County Sheriff	(716) 858-7618
State Police, Troop A	(585) 344-6200
Chaffee Sardinia Volunteer Fire Company	(716) 496-5150
Bertrand Chaffee Hospital	(716) 592-2871
NYSDEC Regional Office	(716) 851-7201
NYSDEC Spill Reporting	(800) 457-7362

In the event that an emergency occurs on the landfill, the emergency coordinator(s) identified below must be contacted.

15.1.2 Emergency Coordinators and Chain of Command

If an emergency situation occurs at the landfill, on-site personnel will contact the Emergency Coordinator. Emergency Coordinators will assume responsibility in the order listed below:

Operation Manager (TBD)
10860 Olean Road
Chaffee, NY 14030
Work Phone: (716) 492-3417
Cellular Phone: TBD
Dave Baker

Home Address: (TBD)

Landfill Gas & Leachate Technician
10860 Olean Road
Chaffee, NY 14030
Work Phone: (716) 492-3418
Cellular Phone: (716) 353-0775

Home Address:
11747 Sunrise Lane
Freedom, NY 14065

Michael Mahar
Sr. District Manager
10860 Olean Road
Chaffee, NY 14030
Work Phone: (716) 492-3411
Cellular Phone: (716) 531-0005

Home Address:
4220 East Lake Road
Wilson, NY 14172

There will be an Emergency Coordinator on-site or during hours of site operation with the authority to commit the necessary resources of the facility to carry out the provisions of the Emergency Response Plan.

15.1.3 Duties and Responsibilities of the Emergency Coordinator

15.1.3.1 Emergency Response Plan Implementation

The decision to implement the Emergency Response Plan at the landfill will depend upon whether or not the emergency incident could potentially endanger human health and safety, and/or the environment. The following information provides the Emergency Coordinator with criteria to assist in making this decision.

The Emergency Response Plan is to be implemented during emergencies or other special conditions related to construction or operational situations as detailed below.

15.1.3.2 Emergency Response Procedures

In the event of an imminent or actual emergency, the first person on the scene must notify the Emergency Coordinator or designee who, in turn, will initiate a proper response. Notification of the Emergency Coordinator may be performed second only to attending to the immediate safety needs of personnel by the first person on the scene. A list of the Emergency Response Agencies and Contacts and a list of Emergency Coordinators will be posted in a conspicuous location in the scale house, the maintenance building, leachate loadout building and the main office.

Notification

The Emergency Coordinator will notify on-site personnel by initiating the internal communications system and aid in evacuation, if necessary. Progression of notification will continue to local and State response agencies deemed appropriate by the Emergency Coordinator. In the event of an environmental emergency, including but not limited to fires, explosions and spills on-site, the NYSDEC RMME is to be notified of the emergency.

Identification

Whenever there is a fire and/or explosion, spill, release, or other incident presenting a potential threat to health, safety, or the environment, the Emergency Coordinator will immediately attempt to identify the source of the emergency.

Assessment

In an emergency situation, an assessment of the possible hazard will be made. If the Emergency Coordinator determines that the facility has had a fire and/or explosion, spill or release, or other incident that presents a possible hazard to health, safety, and/or the environment, and an evacuation of the surrounding area is necessary

he will initiate the Contingency Plan and contact local agencies informing them of the situation. The NYSDEC will also be advised of pertinent facts regarding the incident. A written report of the incident will be sent to the NYSDEC within five (5) days of the occurrence of a site emergency.

When making a report to the NYSDEC, the following information is to be provided:

1. Name and telephone number of Emergency Coordinator making the report.
2. Name, address, and telephone number of the facility.
3. Type and time of incident occurrence.
4. Name and quantity of material(s) involved, to the extent known.
5. Extent of injuries.
6. Possible hazards to health, safety, and/or the environment surrounding the facility.

Control Procedures

Immediate action by on-site personnel will concentrate on preventing fire/explosive or spill/leak situation that occurs from spreading to other areas of the facility and immediate emergency medical attention will be given to injured onsite personnel. These measures include, when applicable and necessary, ceasing facility operations, and collecting and containing released materials. Possible sources of ignition will be removed from the incident area, if this can be done without risk, and vehicular traffic will be suspended, and work ceased until the fire or incident can be safely contained or controlled.

If an emergency occurs, fully trained response personnel will be contacted as soon as possible.

Requests for assistance will include the same information required in making reports to the NYSDEC above.

Follow-Up

After the emergency, the Emergency Coordinator is responsible for the following:

1. Arrange for the on-site disposal of recovered wastes, or contaminated materials resulting from the incident.
2. Assure that relevant aspects of the emergency situation have been addressed.
3. Advise appropriate authorities when the emergency is over.
4. Determine, if possible, the cause of the emergency.
5. Develop or modify existing operational procedures and equipment to prevent future emergencies from similar causes.
6. Modify existing emergency response procedures, and if required, record actions taken under the contingency plan in the facility operating records.
7. Supervise the replacement of emergency equipment and materials back into a state of readiness.

Post-Emergency Equipment Maintenance

Following an emergency incident, emergency response equipment used is to be cleaned and made fit for re-use, or replaced as necessary, so that the equipment affected will be available when facility operations resume. An inspection of equipment must take place before operations resume to ensure that each item is in proper working condition. Remedial activities, such as the recharging of fire extinguishers, replacement of personal protective gear and restocking of disposable items must be completed as soon as possible.

15.1.3.3 Evacuation Plan for Facility Personnel

In an emergency situation, the Emergency Coordinator is the individual responsible for determining if and when evacuation of the facility is required. Imminent or actual dangers that constitute a situation requiring evacuation include:

1. A generalized fire or threat of generalized fire.

2. An explosion or the threat of explosion.
3. A major spill or leak that cannot be contained and constitutes an immediate threat to on-site personnel.

When time permits and evacuation is required, the following procedures will be followed:

1. Alert personnel by using the facility telephone and two-way radio system. Managers and supervisors are responsible for notifying their personnel who do not have access to the facility's two-way radio system.
2. Shut down landfill equipment.
3. On-site personnel are to proceed along the evacuation route (the perimeter road around the landfill to the entrance road by the scale house) to the Route 16 entrance to the facility but are not to leave the premises. Once assembled, a determination and identification of missing persons is to be made.
4. Once assembled and accounted for, waste haulers are to be directed to leave and landfill employees are to standby to afford assistance to the Emergency Response Agency.
5. Alternate Evacuation Route - If the primary evacuation route is impassable or time does not permit, personnel can evacuate the site on foot in any direction onto the adjacent properties owned by the landfill and then assemble at the gate at the Route 16 entrance as soon as possible.

15.1.4 On-site Personal Injuries

15.1.4.1 Medical Emergencies/First Aid

In cases of medical emergency, trained medical response personnel will be contacted immediately. First aid, administered by trained on-site personnel, will continue until professional assistance arrives.

First aid is the immediate care of a person who has been injured or has suddenly taken ill until professional medical aid can be obtained. The objectives of first aid are:

1. To control conditions that might endanger life.
2. To treat for shock.
3. To make the patient as comfortable as possible.

The initial responsibility for first aid rests with the first qualified person at the scene. If needed, medical assistance will be summoned by calling 911 and being as explicit as possible in reporting suspected types of injury or illness and location of the victim. The injured person will not be moved, except when necessary.

15.1.4.2 Personal Injury

The risk of personal injury occurring during construction activities at the landfill will be limited by the training programs and operating procedures implemented by WMNY and the selected contractor(s). Accidents and treatments will be reported to the appropriate authorities. First aid kits are kept in the maintenance building, the scale house, and the main office for treatment of minor burns, lacerations and abrasions. Two-way radios and /or cellular phones will be used to notify the Emergency Coordinator or designee that an accident has occurred. The caller will indicate the severity of the accident and the type of assistance needed. A record of the accident will be maintained.

Emergency and non-emergency telephone numbers for police, ambulance, rescue squad, and hospitals are posted near each on-site telephone and the on-site construction trailers. Emergency telephone numbers are included in Appendix A. Emergency response agencies in the Town of Sardinia area are tied into the Erie County 911 system, and outside emergency response team that is needed can be quickly summoned. The radio base station will be near a telephone to speed emergency responses. Personal injuries, no matter how minor, will be reported by the injured person to his or her immediate supervisor.

15.1.4.3 Available Emergency Services

In the event of an emergency at the Chaffee Facility, the following services are available.

Police Protection

Erie County is protected by the New York State Police and the Erie County Sheriff's Department. The Sheriff's Department has a sub-station in the Colden Town Hall, which covers the Town of Sardinia, and is not manned twenty-four hours a day. The New York State Police sub-station is located at 8550 Boston State Road and is manned twenty-four hours a day with sub-stations in Delevan and Holland.

Fire Protection

Ninety-four fire companies, most of which are capable of providing mutual aid to nearby districts, protect Erie County.

The Chaffee-Sardinia Fire District has one company. This company has approximately sixty-five volunteer firemen, three pumpers, two ambulances, one tanker and one mini-pumper. When mutual aid is required, there are an additional six fire companies, Arcade, Delevan, Holland Strykersville, North Java, and Springville, within a ten mile radius with approximately three hundred volunteer firemen.

Health Services

Health services in Erie County are provided by several general hospitals. These hospitals are located in the densely populated areas. As well as general treatment, they offer acute medical and surgical care. The hospital closest to the landfill is:

Bertrand Chaffee Hospital - 224 East Main Street, Springville, New York

Bertrand-Chaffee Hospital has a helicopter flight pad which can provide quick Mercy Flight transport service for any injuries that may require the more extensive medical care which can be provided at the trauma or burn treatment centers in Buffalo.

The local fire company, which also provides emergency medical assistance, will be provided with copies of the Emergency Response section of this plan and site map (Figure 1-1) detailing the location of buildings, roadways, etc. The local fire company personnel have been on-site and are familiar with the facility layout including flammable liquid storage areas. Bertrand-Chaffee Hospital will also be provided with a copy of the Emergency Response section and site map.

Fire-Fighting Equipment

The landfill maintains several types of equipment on-site that may be used in firefighting efforts. Earth-moving equipment that is utilized on a regular basis for landfill operations may be used to move and apply cover material for fire control. Cover material is readily available on-site for fire control purposes. A water tank truck is kept on-site and is available for use in controlling fires.

The facility also maintains a supply of fire extinguishers that may be used in the event of an emergency incident. These extinguishers are located at the scale house and the maintenance facilities for easy accessibility. Fire extinguishers are also located on the landfill vehicles and equipment for use in cases of field emergencies. Extinguishers are maintained in conformance with State and local fire codes and regulations.

First Aid/Safety Equipment

First aid and safety equipment is located in strategic locations on the site, and some items may be kept in landfill vehicles and on landfill equipment. First aid kits, located in the scale house, the main office, and maintenance facilities contain a full range of items necessary to care for minor injuries needing prompt attention, and are easily and immediately accessible to on-site personnel

15.2 EXPLOSIVE LANDFILL GASES

This section provides a description of the responses required to manage uncontrolled explosive landfill gasses, in accordance with the requirements of Part 363-4.6(o)(1)

As outlined in the Environmental Monitoring Plan (Part VII of this application), explosive gases will be monitored using permanent monitoring gas probes and methane detectors in on-site structures. The gas probe monitoring will be performed using a hand-held explosive gas detector.

The concentration of explosive gas, if found, will be compared to the lower explosive limit (LEL) in the atmosphere. According to the Part 360 regulations, the concentration of methane and other explosive gases generated by the landfill must not exceed twenty-five (25) percent of the LEL for gases in structures on or off-site, excluding gas control or recovery system components; and the LEL for the gases at or beyond the property boundaries.

Upon detection of explosive gas levels exceeding the limits specified above, WMNY will take immediate steps necessary to ensure safety and protection of human health and will immediately notify the NYSDEC. Within seven (7) days of detection, WMNY will submit to the NYSDEC the gas levels detected and provide a description of the steps taken to protect human health. Within forty-five (45) days of detection, WMNY will submit a plan to implement a remediation plan for the gas releases and schedule for the implementation of the plan within 60 days beyond the date of detection. The plan to be submitted will describe the nature and extent of the problem and the proposed remedial work.

15.3 CONSTRUCTION-RELATED CONTINGENCIES

Third party contractors perform most on-site construction activities at the Chaffee Facility. The contractors are therefore responsible for responding to specific construction-related contingencies. This section provides a description of the responses required to manage unexpected construction-related events, in accordance with the requirements of Part 363-4.6(o)(2) and (3). Additional detail related to actions that would take place as a result of unexpected construction related events can also be found throughout this report.

15.3.1 Adverse Weather Delays

The Chaffee Facility, located in Western New York, is subject to seasonal variations in weather. Construction, therefore, is limited to the spring, summer and early fall months. During this timeframe, excessive wet periods cause most construction delays. When conditions inhibit proper equipment operation and installation of construction materials, construction must be postponed until more favorable conditions occur.

Prior to rainfall events and at the end of each working day, the contractor shall perform the following to ensure proper stormwater management. Loose soil surfaces will be compacted to avoid erosion. Permanent drainage structures shall not be blocked or disturbed by the ongoing construction, and if so, an alternate structure shall be put into place to allow continuous stormwater flow. Temporary swales, berms, culverts and erosion controls shall be installed and maintained to allow stormwater to be removed from the construction area and into the permanent drainage structures. Construction materials shall be placed in a fashion so as stormwater will not damage stockpiles or constructed areas. During and after rain events, the contractor will verify that the drainage structures are performing correctly and perform maintenance if required (i.e. removing silt or replacing erosion controls).

If construction has not been completed prior to the winter, construction materials must be protected from possible weather damage. This may include covering geosynthetic materials and compacted clay liners with protective soils, insulating exposed piping, grading and compacting the site to allow runoff and prevent erosion.

15.3.2 Damaged Construction Materials/Equipment

Soil materials used for the construction of composite liner, and cover are available on-site at the landfill facility and on adjacent properties. Synthetic materials used for landfill construction will be purchased from third party suppliers. Should a particular stockpile of construction material be damaged as determined by the CQA Engineer or deemed unacceptable based on laboratory testing in accordance with the construction Technical Specifications and QA/QC Plan (Appendix A of the Engineering Report, Part III of this submittal), the owner of the material must replace it with available on-site material or purchase new material. The replacement material must meet the requirements stated in the construction Technical Specifications and QA/QC Plan.

In the case of construction equipment damage or break-down, there is some equipment on-site to temporarily support construction activities. In the event that a primary piece of construction equipment breaks down and on-site replacement equipment is not available, backup equipment can be acquired through several equipment rental agencies in the Western New York area.

15.3.3 Availability of Construction Materials/Subcontractors

Construction materials such as pipe, geomembranes, geocomposites, and geotextiles are typically ordered 3 to 4 months in advance of actual construction activities. These materials are purchased from several suppliers contracted with WMNY. Therefore, several suppliers are available to provide additional material should the need arise. Soil materials that are not available from on-site borrow areas can be obtained from several permitted third party sources in Western New York.

WMNY typically prequalifies a number of contractors/subcontractors to perform landfill construction-related activities, including earth work, electrical work, gas collection and control system construction, building construction, and liner and pipe installation. WMNY utilizes a request for bid process to select from a list of prequalified contractors. WMNY requires that the contractor provides a list of primary subcontractors and alternate subcontractors available for the construction project.

15.4 OPERATION-RELATED CONTINGENCIES

This section of the facility's Part 360 Facility Manual describes the response actions that facility personnel will undertake in response to specific unexpected operation-related events, in accordance with the requirements of Parts 363-4.6(o)(2) and (3). Additional detail related to actions that would take place as a result of unexpected operational events can also be found throughout this report.

15.4.1 Inoperable Leachate Pumps

Dedicated leachate pumps will be operated in each of the leachate collection system primary and secondary leachate collection sumps in the Western Landfill and Valley Fill Landfill and the Area 7/8 Development and in the vertical leachate collection sumps for the Closed Landfill. These pumps will be a standard pump type common to this application. A minimum of one surplus primary and secondary pump will be maintained on-site, in the event that an installed pump becomes inoperable. A surplus pump will be immediately installed, while the inoperable pump is being repaired. Also, as leachate generation rates in individual landfill cells stabilize over time and the required minimum sump pumping frequencies are diminished (for allowable leachate level maintenance), pumps can also be temporarily moved between sumps to address inoperable pumps.

The proposed leachate storage system will require the use of an electric transfer pump to be used when filling tanker trucks at the loadout pad. Spare parts for this pump and electric motor will be kept in stock at the facility's maintenance shop in case of a pump breakdown. The stormwater from within the secondary containment tank will be pumped via a construction pump located on top of the vault. Spare parts and extra construction pumps will be kept in stock at the facility in case of a pump breakdown.

Pump parts or replacement pumps may be bought directly from the manufacturers of the pumps. Level sensors and control systems used to control the flow of leachate within the collection and storage systems will also be maintained by keeping spare parts on-site and by engaging in a contract to have an electrical/mechanical contractor on call to make repairs and adjustments when required.

15.4.2 Loss of Electrical Power

In general, electrical power outages are of short duration (less than 24 hours) and should not significantly affect the facility's minimum operating and environmental controls. In the event of a power outage, facility personnel will be mobilized and redirected to work tasks (assistance in manual receipt control procedures and documentation, traffic control, etc.) to directly respond to the outage, as necessary. Facility work that is underway at the time of the outage that could be adversely affected by the outage (certain maintenance activities, confined space entries, etc.) will be immediately halted until power is restored.

Currently, a diesel powered backup generator is located adjacent to the flare building. In the case of a power outage, this generator can be manually started to operate both LCS 1 and 2 and LST 1 and 2. If a power failure occurs at LCS 1 or 2 or at LST 1 or 2, an autodialer has been installed as part of these systems to transmit a power failure message to a list of site personnel. The receipt of this message will allow site personnel to initiate a manual startup of the generator. The details of the generator and autodialer have been included in the Operations and Maintenance Manual (Part V of this submittal). Currently, this generator provides power to LCS 1, 2 and LST 1, 2 (i.e., pumps, control panels, sensors and etc.).

The remainder of the site can be directly powered by the onsite Power Production Plant. In the event of a power outage, two switches are turned on and the remainder of the site, including the buildings and leachate systems will be operational. Additional details have been included in the Operations and Maintenance Manual (Part V of this submittal).

If a power outage persists, facility management will evaluate the ability of the facility to continue to function with the minimum environmental and health and safety control systems. If necessary, the facility will be closed until power is restored.

15.4.3 Fires

The possibility of a fire, whether in the landfilled waste or within a piece of equipment, is a potential hazard associated with the daily operation of landfills. In the event of a surface or below cover fire within the landfill, the NYSDEC RMME will be notified immediately.

The use of cover material is an effective and practical means of fire control. The earth-moving equipment used regularly at the landfill are capable of moving and applying cover material as needed.

Water can be used to supplement the use of cover material or serve as an alternative means of controlling fires. The landfill has a sedimentation pond for stormwater storage and a large water truck available for use during emergency situations. For larger or more serious fires, the local volunteer fire department would be contacted. Additionally, portable fire extinguishers are kept as a precautionary measure. The contingency programs described below will be followed when encountering an equipment fire, a loaded vehicle fire or below cover fire.

Equipment Fire

Operators will shut down their piece of equipment, get the fire extinguisher, and leave their piece of equipment. The extinguisher will be pointed at the base of the flame and discharged until there is no flame. If the fire is not out and the extinguisher is empty, the Operations Manager will be notified. In the event that a landfill equipment extinguisher has been used to fight a fire, the extinguisher will be replaced prior to placing the equipment back into service.

Loaded Vehicle Fire

In the event that a disposal vehicle carrying a burning or smoldering load of waste enters the landfill site:

1. It will be directed away from any exposed waste and allowed to deposit the solid waste.
2. Once the waste is removed from the vehicle, the equipment operator will segregate the non-burning waste and either cover the burning waste with cover material, get the on-site water truck to extinguish the fire, or any combination of the above.
3. Precaution will be taken throughout the entire fire-fighting operation.
4. If, the fire is not under control within ten minutes of detection, local fire-fighting units will be contacted.

Below Cover Fire

In the unlikely event that a fire breaks out in the already-deposited solid waste, cover material or water will be used to put the fire out.

1. Precaution will be taken throughout the entire fire-fighting operation.
2. If the fire is not under control within one hour, local fire-fighting units will be contacted.

15.4.4 Equipment Breakdown/Unavailability

In the case of landfill equipment malfunctions, there is sufficient equipment as backup on-site to adequately maintain landfill construction operations. If the unlikely event that a primary piece of equipment and the on-site backup equipment break down at the same time, additional equipment is available through several rental agencies in the Western New York area.

15.4.5 Release of Hazardous Materials

Toxic materials are not used on the landfill site. Landfill equipment could have a fuel or hydraulic fluid leak while working on the landfill. These types of releases are contained, absorbed, and if required, contaminated soil is disposed in a manner consistent with applicable regulations. Potential groundwater contamination by hazardous materials is considered in Section 15.4.7.

The possibility also exists for the release of toxics that may be undetected in the waste. If the operators on the landfill discover toxic materials that were previously undetected, they will immediately contact the Operations Manager. The Operations Manager will then immediately contact the NYSDEC 24-hour spill emergency response line at 1-800-457-7362. In the meantime, workers will be instructed to stay upwind, eliminate ignition sources if the material is believed to be flammable, and contain the toxic materials with berms and absorbents. If the material is unable to be controlled, the facility will notify emergency agencies and downgradient residents.

Based on visual inspection, the Operation's Manager will decide whether to handle the waste as an unauthorized waste or contact an analytical laboratory for sampling and analysis of the materials. If the material is sampled and analyzed by a laboratory, the analytical results will dictate the proper handling of the suspect materials.

15.4.6 Surface Water

The facility's method of landfilling greatly reduces the chance of rainwater leaving the active area. Rainwater that becomes contaminated through contact with solid waste is directed to the leachate collection system. This is accomplished by sloping waste disposal activities and operating cover from the exterior slope in toward the landfill. This water travels in toward the center of the landfill and percolates down though the existing waste mass.

Precipitation that comes into contact with intermediate cover is directed away from the facility's active face and conveyed away from the landfill through the facility's stormwater management system.

The SWPPP outlines the methods of runoff and run-on control at the facility. For the proposed Area 7/8 Development, the stormwater system modifications are discussed in the Engineering Report for the application.

If leachate seeps occur, the Operations Manager will correct them on an individual basis. Soil on the immediate area of the seep will be removed and replaced with a permeable material to guide the seep back to the leachate collection system and the area covered with on-site impervious clayey silts. The use of permeable material for operating cover and impermeable clayey silt on the top and outside slopes along with the removal of impermeable operating and intermediate cover before the next layer of waste is placed assists in limiting the number of seeps.

If erosion was a cause of the seep, the general areas will be regraded and gullies filled.

In the case that a significant amount of leachate has either seeped out of the landfill or been carried away from the working face by stormwater runoff, the landfill will contain the stormwater within drainage ditches and sedimentation ponds. Sedimentation basin #5 receives stormwater prior to entering basins #1, #2 and #3. Basin #5 is constructed with a two foot thick low permeable soil liner and both the inlet and outlet culverts are controlled by valves. In the event that runoff water becomes impacted, the outlet pipe will be closed and the impacted stormwater will be allowed to flow into the basin. Once the impacted stormwater is contained, the inlet culvert valve will be closed. Upon closing the valve into basin #5, stormwater will be allowed to bypass directly into basins #1, #2 and #3.

Once the contaminated water has been contained and collected, the Operations Manager will implement the following protocol:

- If the water is known to contain a significant amount of leachate or is visually impacted, it will be treated as leachate and hauled for off-site treatment;
- If impact is unknown, the water should be immediately tested for leachate indicators with results forwarded to the NYSDEC;
- If the water is determined as being impacted based on the testing, it will be treated as leachate and hauled to an off-site treatment facility;
- If the water is determined as being not impacted based on the testing, it may be discharged as runoff with approval by the NYSDEC;
- If the testing is unclear on the extent of impact, additional testing may be required at the request of the NYSDEC; and
- Upon disposing of the impacted water, any impacted soil or sediment must be removed and disposed of within the landfill.

15.4.7 Groundwater

Details of the Groundwater Monitoring Program (including Contingency Groundwater Monitoring) are included in the Environmental Monitoring Plan (EMP) (Part VII of this permit application).

If contaminants are detected in the landfill monitoring well network above their triggering levels, the landfill will notify the NYSDEC Region 9 office within 14 days of the detection finding and will implement a contingency monitoring program meeting the requirements of subparagraph 6 NYCRR Part 363-4.6(f)(9)(iii) within 90 days. The Contingency Water Quality Monitoring Program is outlined in the EMP.

If the groundwater is impacted, based upon the water quality monitoring, the Chaffee Facility must determine the source and extent of impact and subsequently develop a remedial program to contain and treat the affected soils and groundwater as approved by the NYSDEC.

The above program will limit potential offsite contamination of the private residential water supply. If a landowner adjacent to the landfill indicates that his residential well has been contaminated, the claim will be investigated to see if contamination exists and to determine its cause. If it is determined that the landfill could possibly have

contributed to the contamination, the NYSDEC will be notified and further testing will be performed. Work will be performed under the auspices of the NYSDEC.

16.0 CONCEPTUAL CLOSURE, POST-CLOSURE CARE, CUSTODIAL CARE, AND END USE PLAN

As the landfill reaches final grade, an intermediate cover will be put in place to control gas emissions and infiltration of precipitation, while additional waste settlement occurs. Once settlement is complete, final cover will be placed, and monitored and maintained to ensure its integrity. Multiple aspects of closure are covered in this section, including in the conceptual closure phase, final closure requirements, and post closure monitoring and maintenance.

Information related to landfill closure located in several locations throughout this report and application. This section is intended to address the following regulatory sections or refer to appropriate application documentation.

- Part 363-4.3(a)(3)(iv) – A description of the materials and construction methods for the final cover system can be found in Section 6.1.4 of this report.
- Part 363-4.3(a)(4) – The post construction care measures are discussed throughout this section, and also within Tables 16-1 and 16-2 of this report.
- Part 363-4.3(h)(1) – A description of the materials and construction methods for the final cover system can be found in Section 6.1.4 of this report.
- Part 363-4.3(h)(2) – the post-closure water quality monitoring program is discussed in Section 16.1.1 of this plan.
- Part 363-4.3(h)(3) – the closure plan for the leachate collection treatment, and storage facilities is discussed in Section 16.1.2 of this plan.
- Part 363-4.3(h)(4) – the closure plan for the landfill gas management system is discussed in Section 16.1.3 of this plan.
- Part 363-4.3(h)(5) – the proposed end use is discussed in Section 16.5 of this plan
- Part 363-4.6(p)(1) – The proposed final cover grading plan for the landfill facility is included the Part 360 Permit Application Engineering Drawings, Sheet 9.
- Part 363-4.6(p)(2) – Typical details for the landfill facility closure construction are included on Sheet 30.
- Part 363-4.6(p)(3) –The sequential closure of the landfill in concert with the fill progression is described in Sections 6.1.4 and 16.2 of this report.
- Part 363-4.6(p)(4) – The largest active area of the landfill is the total landfill area excluding the property buffers, which is approximately 100 acres.
- Part 360-4.6(p)(5) – An estimate of the maximum inventory of wastes, (including alternative operating covers) on site during the active life of the landfill will occur on the day the landfill is at capacity and the facility is ready for closure. It is estimated that this capacity is approximately 15.4 million cubic yards for the combined Western Landfill, Valley Fill, and the Area 7/8 Development.
- Part 363-4.6(p)(6) – Closure and post closure material quantity and cost estimates including monitoring and maintenance are included in Tables 16-1 and 16-2 of this manual

16.1 CLOSURE OF ENVIRONMENTAL CONTROL SYSTEMS

This section contains a brief overview of each of the landfill's existing and proposed environmental control systems including the leachate management system; the landfill gas management system; the stormwater management system; groundwater monitoring system, and the final cover system. Each of these systems will continue to operate in some capacity after closure, and the functionality of each system and anticipated long-term use is discussed.

16.1.1 Groundwater Monitoring System

The groundwater monitoring network consists of either single wells or well pairs located at the perimeter of the Closed Landfill, Western Landfill Area, and Area 7/8 Development. Groundwater samples will be collected from monitoring wells identified in the Environmental Monitoring Plan (Part VII of this application) to monitor groundwater quality at the facility during landfill operation. Sampling and analysis of groundwater will consist of three (3) quarters of sampling for the Part 363 Routine List of parameters and one (1) quarter of sampling for the Baseline List. Once final capping has been completed it is anticipated that the operating monitoring program will continue during the initial post-closure period. Reduced frequency sampling will be requested as appropriate during the post closure period.

16.1.2 Leachate Management System

Leachate management in the Closed Landfill, the Western Landfill, the Valley Infill and the proposed Area 7/8 Development is accomplished through the following sequence of activities: collection and removal, storage, and off-site transportation and disposal. Leachate management is generally accomplished by gravity draining individual sections of the landfill into sumps, from which leachate is pumped into horizontal leachate recirculation headers or forcemains for transport to leachate storage tanks and eventual disposal. Consult Section 8 for the Leachate Management Plan, which includes detail on leachate collection systems. The Engineering Report, attached as a separate part of this Part 360 application, also contains details on the leachate design for the Area 7/8 Development.

Management of collected leachate during post-closure will include the off-site transport and treatment at Publicly Owned Treatment Works. During post-closure, the overall rate of leachate generation will be reduced over time, as the infiltration rate comes into a new equilibrium established by the low permeability final cover. The leachate system will be maintained and operational during the course of the post-closure period.

16.1.3 Landfill Gas Management System

For the Closed Landfill, the Western Landfill, the Valley Infill and the proposed Area 7/8 Development, the gas collection system consists, or will consist of a series of horizontal trenches, vertical wells, laterals and headers sized to provide removal of landfill gas and conveyance to the Landfill Gas to Energy Facility (LFGTE).

The facility conducts and will continue to conduct quarterly monitoring at the site to detect the presence of explosive gases migrating in the subsurface soils as described in the facility Environmental Monitoring Plan (Part VII of the Part 360 application). In general, perimeter gas probes are installed in the soil around the footprint of the landfill and tested on a quarterly basis to document that explosive gases are not permeating subsurface soils. It is anticipated that the probes will be monitored on a quarterly basis during the post closure period.

A gas venting layer will be installed in the final cover system to provide relief of landfill gas pressure, allowing it to be actively collected or passively vented to the atmosphere, thus preventing subsurface migration.

Much of the LFG collected by the Facility is combusted and converted to energy at the facility's Landfill Gas to Energy facility (LFGTE). It is currently expected that the LFGTE plant will continue to operate as long as sufficient LFG is being produced to continue profitable operation. Landfill gas generation will decrease with time over the course of the closure and post-closure periods, with generation eventually reaching a point at which landfill gas will only need to be flared or passively vented.

16.1.4 Stormwater Management System

The site stormwater management system consists of a network of diversion and conveyance structures that convey stormwater to a series of stormwater sedimentation basins that will provide water quality treatment and

discharge into adjacent site wetlands. Under the post-closure condition, stormwater discharges will be treated in the same manner as they are during operation.

Permanent cap drainage structures, namely diversion swales, downchutes, and culverts, will be constructed as part of the final cap system. These drainage design features are presented on Sheets 25 through 28 of the Engineering Drawings. These conveyance systems will discharge into the stormwater sediment ponds for treatment/discharge. In order to continue to minimize leachate infiltration and prevent the transportation of soils and sediments off-site, the stormwater controls will be maintained as described in the Engineering Report and site SWPPP during the closure and post-closure periods.

Eventually, once final capping has been completed and the potential for waste-based contaminant transport by stormwater is minimized, the site SWPPP will be updated. The SWPPP will reflect the conditions at the time of closure and will outline appropriate stormwater sampling procedures based on the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity in place at that time.

16.2 FINAL CLOSURE

The final cover system of the site will be constructed once portions of the site have reached design height and initial settling has occurred (see Sheet 9 of the Part 360 Application Engineering Drawings). A final cover system will be installed on landfill cells that have achieved final grades in accordance with Subpart 363-6 of this Part within five years of attaining final grades. Details on the final cover system design, layout, and implementation can be found in Section 6.1.4.

Completion of the final closure system and final cover will be completed within 365 days of receipt of final waste unless an extension is approved in the landfill's closure plan, in accordance with Part 363-9.3(b). Additional activities to be completed after receipt of final waste, in accordance with Part 360.21, are listed as follows:

1. notify the department in writing 30 days prior to the anticipated final receipt of waste and within seven days of completion of closure activities;
2. within 30 days after receiving the final quantity of wastes, submit an annual report to the department as required under this Part;
3. within 60 days after receiving the final quantity of waste, remove and deliver remaining waste to a facility authorized to accept the waste;

Additionally, the Facility Closure Plan will be submitted at least 180 days prior to the commencement of construction of final facility closure that meets the requirements of Parts 363-9.3(c) and 363-9.3(d).

Finally, a construction certification report will be submitted to the NYSDEC after the completion of landfill closure construction. The report will include items required under Part 363-9.4.

16.2.1 Closure Site Investigation Report/Closure Plan

A site investigation will be done in accordance with Part 363-9.2 to demonstrate that the closure plan described above is adequate. The closure investigation report will be completed in stages prior to placement of the final cover system. The closure investigation will include a hydrogeological investigation using methods described in Part 363-4.4, an explosive gas survey in accordance with Part 363-9.2(a)(2), a surface leachate investigation and a vector investigation. The closure investigation will be based upon the hydrogeologic investigation, environmental monitoring data, and gas probe monitoring data collected during operation of the landfill.

Upon completion of the closure site investigation, data will be compiled in a closure investigation report that complies with Part 363-9.2 and submitted to the department for approval. WMNY personnel will meet with NYSDEC staff to review specific landfill considerations and findings of the closure investigation. A facility closure

plan will be submitted to the Department at least 180- days before commencement of final facility closure in accordance with Part 363-9.3(c).

16.3 POST CLOSURE PLAN AND MAINTENANCE

It is anticipated that WMNY will monitor the site for a period of at least 30 years after closure (i.e., after the last receipt of solid waste at the landfill). Facility and environmental monitoring points will be maintained and be made available for sampling during the post-closure period. Post-closure monitoring and maintenance will require various activities to be undertaken at the site on both a scheduled and "as needed" basis. A cost estimate for the Post-Closure care period of 30 years has been developed and can be seen in Table 16-2 of this document.

A Post-Closure Care Plan will be provided to the NYSDEC for approval prior to the last receipt of waste, at least 180-days before commencement of final facility closure and will provide information needed to effectively monitor and maintain the landfill facility for the post-closure period. At a minimum, under Part 363-9.6(a)(2), the plan will include:

- Descriptions of type, location, sampling and sample preservation methodology, and record keeping and reporting requirements for environmental monitoring activities;
- Descriptions of environmental control systems including;
    - Process control monitoring types, locations, record keeping and reporting requirements. Leachate management activities will include recording of the total volume of leachate stored and removed from the facility, sampling and analysis, and proper maintenance; and
    - Environmental control maintenance requirements including description, type, frequency, and recordkeeping;
- Descriptions of the types, location and frequency of other facility maintenance activities including;
    - Maintaining the integrity and effectiveness of final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, maintaining the appropriate vegetative cover, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;
    - Maintaining the leachate collection system in accordance with Part 363-7.1(f)
    - Maintaining and operating the gas control and monitoring systems in accordance with 6 NYCRR Part 363-7.1(e); and
    - Record keeping and reporting requirements in order to maintain compliance with Part 363-9.6(a)(1);
- Description of resource requirements including;
    - Personnel qualifications and numbers; and
    - Equipment needs;
- Name, address and telephone number of the person or office to contact on post-closure monitoring and maintenance, and corrective measure concerns during the post-closure period;
- A summary of financial assurance criteria concerns that must be addressed to remain in compliance with the provisions of 6 NYCRR Part 360-2.22 which includes;
    - Submittal to the NYSDEC of annual adjustments to cost estimates of post-closure care and corrective measures; and
    - Notification to the NYSDEC of increases in post-closure care costs and corrective measure costs; and
- A description of the planned uses of the property during the post-closure period.
- A list of changes to the approved post-closure plan by topic, author, date of submittal, and date approved by the department from the time of original closure plan approval.

The plan will be updated every 5 years during the post closure period.

16.4 CUSTODIAL CARE PLAN

It is anticipated that after 30 years of post-closure care, the landfill will be functionally stable and will not present a threat to human health and the environment at the point of exposure. This is based on the WMNY experience at other sites, the experience of the industry, and the functional lifetime of the critical components (e.g., geomembrane cap) of the landfill which will extend well beyond the 30-years.

Additionally, the landfill systems will be monitored and managed by WMNY with a goal to cease maintenance at the end of the 30-year period. More specifically, it is anticipated that the following systems will be functionally stable and ceasing maintenance will not impact human health and the environment at potential points of exposure:

- leachate collection system;
- LFG monitoring system;
- groundwater monitoring system; and
- the cover system.

At the end of the post-closure period, potential impacts to human health and the environment will be assessed considering leachate quality and quantity, gas composition and production, cover integrity, and groundwater quality. Additionally, potential impacts to human health and the environment will be assessed in the context of the proposed end-use which is anticipated to be passive green space for the Town.

It is anticipated that this justification will be able to be made based on the 30 years of historical monitoring that has occurred at the site in the period after closure. Analysis of this monitoring will be submitted as part of the justification. This evaluation will consider groundwater quality, landfill gas emissions, leachate management, settlement, vegetation cover, surface water and the end use of the landfill. Should continued care beyond the anticipated 30-year post-closure period be necessary, the Operator and Owner are committed to working with the NYSDEC to actively maintain the site in a manner that appropriately mitigates impacts to human health or the environment.

16.5 CONCEPTUAL END USE

The final cover system has been designed to incorporate a native seed mixture that will provide the necessary vegetative cover for stabilization of the landfill final cover as well as a to serve as a grassland habitat for local wildlife. During post-closure, it is anticipated that the closed landfill area will not be accessible to the general public due to the required operations and maintenance of stormwater, final cover, and landfill gas systems.

17.0 PERSONNEL/TRAINING

WMNY is responsible for the management of the landfill and related facilities. Information required under 6NYCRR Part 360.16(c)(4)(iii) is included in this section of the Facility Manual. The Sr. District Manager is responsible for making primary decisions related to the administration and operation of the site. The management of site related activities is the responsibility of the Operations Manager who reports directly to the Sr. District Manager.

Approximately 15 employees carry out solid waste permitting, billing, tracking, inspection, disposal, and construction operations under the direction of the various supervisors. This number varies based on the amount of ongoing landfill construction. These employees are located at the landfill, including the Operations Manager, Scale Operator, Mechanic, Laborers, and Equipment Operators.

17.1 PERSONNEL RESPONSIBILITIES

The following presents an overview of personnel responsibilities and duties including lines of authority. The staff members can vary in number and level of responsibility. However, in general staff members and their responsibilities are as follows:

Sr. District Manager, who will (i) supervise and manage overall operation and maintenance of the landfill and associated facilities, (ii) make and manage contracts with waste hauling companies, (iii) oversee construction at the site, and (iv) ensure that the landfill is operating in compliance with the terms and conditions of the permit;

Operations Manager, who will (i) supervise and manage the day to day operation and maintenance of the landfill and associated facilities, (ii) ensure that facility performance monitoring is completed as required, (iii) conduct the required daily, monthly, quarterly and annual inspections, and (iv) ensure that the landfill is operating in compliance with the terms and conditions of the permit;

Site Engineer, who will (i) ensure that the landfill is developed according to the engineering plans; (ii) record variations from the engineering plans; and (iii) monitor environmental compliance of the facility.

Equipment Operators, who will operate the landfill equipment for the purposes of waste placement and site maintenance, and ensuring that safety procedures, and landfill policies are adhered to as applicable.

Mechanics, who will perform routine maintenance on the equipment at the facility;

Scale Operator, who will record the weights and physical condition (i.e., covered, etc.) of the waste hauling vehicles that enter the site; and

Laborers, who will perform miscellaneous tasks at the site, including litter control, grounds maintenance, etc.

In addition, part-time personnel may be added to the Chaffee Facility staff as necessary during periods of construction, during routine cleaning of the facility, and during special projects. If conditions warrant, additional engineering, operations and safety personnel, may be reassigned from other WMNY facilities in the area. During landfill construction events, several contractors may be present on site. The number of personnel employed by each contractor varies based on the requirements of each project.

Each employee is trained to perform any of the duties of the job classification under him/her and is required to perform those tasks when asked by a supervising landfill employee.

17.2 EMPLOYEE SAFETY AND TRAINING PROGRAM

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

- Part 360 Operating Permit Conditions;
- Facility Performance Monitoring (i.e., environmental monitoring, leachate collection and leachate storage);
- Spill Prevention;
- Emergency Management Procedures;
- Lock Out Tag Out;
- Confined Space Entry Identification;
- Waste Identification;
- Special Waste Management; and
- Asbestos Management

Specifically, the Operations Manager must attend and successfully complete a course of instruction in solid waste management procedures. This course must meet the requirements as stated in 6 NYCRR Part 363-7.1(q). Alternatively, the Operations Manager may work under the direction of the Sr. District Manager who has completed the course until they are able to attend the next available course of instruction.

The Employee Safety and Training Program for the landfill provides personnel with a structured and organized instruction program for the performance of their assigned duties at the facility, during both routine and emergency conditions. A record of training for each employee is maintained on file at the landfill. Regular facility-wide training programs for operational staff are held on a monthly basis and covers topics such as regular operations, response to unexpected events, health and safety, and environmental protections.

Introductory Training Program Outline

New employees will be provided with introductory training in the following areas;

- An introduction to the layout of the landfill and a general landfill tour;
- Relationship between their job classification and the landfill;
- An overview of the contents of the Facility Manual (this document)
- An overview of the monitoring facilities, various landfill structures, and equipment used on site;
- Instruction on the location, importance, and use of safety and emergency equipment;
- and
- An overview of the emergency response procedures that are presented in the Emergency Response section of the Facility Manual (this document).

Employees involved directly with the solid waste receiving and management aspects of the facility will learn the proper handling of each type of solid waste material (municipal solid waste, sludges, asbestos, industrial waste, etc.) along with the practical implementation of applicable regulatory guidelines. In addition, these employees will be trained in the recognition of acceptable and unacceptable wastes, as well as the steps to be taken in the situation when unauthorized waste is received. Emphasis will be continually placed on safe and proper solid waste handling.

Record Keeping Documentation of the training provided to each employee will be maintained on file in the office. This documentation will consist of the actual training/safety meeting held for that month with the date of meeting and the copies of Training/Safety Meeting records. The Monthly Training/Safety Meeting record includes the date training was given, topic of training or instruction, and the names of employees in attendance. This form also serves as a record that the instruction was given and successfully completed by the employee. A copy of the

Training/Safety Meeting record is also put in each individual employee's personnel file. A copy of tests is also kept in the employee's personnel file.

18.0 NOISE CONTROL PLAN

The Chaffee facility is surrounded by a buffer of woodland on three sides that helps control noise from landfill-related activities. Since landfill construction activities are usually concentrated in areas removed from most local residences, the noise generated from construction at the landfill is not expected to cause off-site impacts. The landfill equipment has mufflers to further reduce potential nuisance from noise.

Evaluation of sound levels at the landfill by an independent consultant has indicated that noise levels are within the limits established in the Part 360 regulation assuming that a combination of mitigation measures, including setbacks and berms are implemented. There are a variety of mitigation options that can be utilized to achieve compliance with the noise criteria for the facility. In addition to large separation distances between noise sources and sensitive receptors, one of the most effective measures is use of noise attenuation berms. Noise attenuation berms can dramatically attenuate noise impact levels and are frequently used for noise mitigation. The relatively small impact (noise impact levels more than 6 dBA above background) for Allen Road residences will be addressed by construction of an attenuation berm at the southeast corner of the South Borrow Area. A noise attenuation berm will also be installed along the west and north limits of Borrow Area C.

There are other options for reducing noise impacts that may be considered, particularly when operating at the northern edge of the area of increased vertical landfilling. One option is to construct a temporary berm or other barrier, as mentioned above. Another option would be to reduce the amount of equipment operating in the area at the extreme northern edge of the area of increased vertical landfilling. Also, note that the elevation difference between the Hand Road property line location and the critical disposal area, is about 150 feet, which means that noise from equipment operating back from the edge will be reduced by the barrier effect caused by the edge of the landfill. The noise generated in the area of increased vertical landfilling would be attenuated by this barrier effect.

The Chaffee Facility's current Part 360 permit does not require noise monitoring, and due to minimal expected noise impacts, existing practices and controls will continue to be used. To further manage noise, WMNY will request that third-party construction equipment be equipped with the same or similar "smart alarms" as are being used on WMNY landfill equipment. A "smart alarm" is an alarm that increases in decibels when the piece of equipment is approaching an object.

With regards to landfill-owned equipment, mufflers and exhaust systems will be inspected regularly to make certain they are in good repair and not leaking. Mufflers and exhaust systems that are not functioning as intended will be replaced. Equipment that is found to have an ineffective muffler or exhaust system will be taken out of service for repair. Landfill-related equipment is or will be retrofitted with "smart" backup alarms that will increase in decibels when they sense an object in the path of the vehicle.

TABLES

TABLE 4-1
CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SERVICE AREA PLANNING UNIT/WASTE ORIGIN

Planning Unit	County	Municipality
New York City	Richmond	Richmond (Staten Island)
Rockland County Solid Waste Management Authority (RCSWMA)	Rockland	
Westchester County	Westchester	
Capital Region Solid Waste Management Partnership	Albany	Albany (City)
		Altamont (Village)
		Berne (Town)
		Bethelehem (Town)
		Green Island (Town/Village)
		Guilderland (Town)
		Knox (Town)
		New Scotland (Town)
		Rensselaerville (Town)
		Voorheesville (Village)
		Westerlo (Town)
Eastern Rensselaer County Solid Waste Management Authority	Rensselaer	Castleton-on-Hudson (Village)
		Hoosick Falls (Village)
		Nassau (Village)
		Pittstown (Town)
		Schaghticoke (Town/Village)
		Stephentown (Town)
		Valley Falls (Village)
Greene County	Greene	
Montgomery County	Montgomery	
Development Authority of the North Country (DA	Jefferson	
Oneida-Herkimer Solid Waste Authority	Oneida	
	Herkimer	
Broome County	Broome	
Cayuga County	Cayuga	
Chenango County	Chenango	
Cortland County	Cortland	
Madison County	Madison	
Onondaga County	Onondaga	All municipalities, except Town and Village of Skaneatles
Oswego County	Oswego	
Tioga County	Tioga	
Tompkins County	Tompkins	
Chemung County	Chemung	
GLOW Region Solid Waste Management Committee	Genesee	
	Livingston	
Monroe County	Monroe	
Ontario County	Ontario	
Orleans County	Orleans	
Schuyler County	Schuyler	
Seneca County	Seneca	
Steuben County	Steuben	
Wayne County	Wayne	
Yates County	Yates	

TABLE 4-1
CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SERVICE AREA PLANNING UNIT/WASTE ORIGIN

Allegany County	Allegany	
Cattaraugus County	Cattaraugus	
Chautauqua County	Chautauqua	
GLOW Region Solid Waste Management Committee	Wyoming	
Niagara	Niagara	
Northeast-Southtowns Solid Waste Management Board (NEST)	Erie	Akron (Village)
		Alden (Town/Village)
		Angola (Village)
		Aurora (Town)
		Blasdell (Village)
		Boston (Town)
		Brant (Town)
		Cheektowaga (Town)
		Clarence (Town)
		Colden (Town)
		Collins (Town)
		Concord (Town)
		Depew (Village)
		East Aurora (Village)
		Eden (Town)
		Elma (Town)
		Evans (Town)
		Farnham (Village)
		Gowanda (Village)
		Hamburg (Town/Village)
		Holland (Town)
		Lackawanna (City)
		Lancaster (Town/Village)
		Marilla (Town)
		Newstead (Town)
		North Collins (Town/Village)
		Orchard Park (Town/Village)
		Sardinia (Town)
		Sloan (Village)
		Springville (Village)
		Wales (Town)
		West Seneca (Town)
Northwest Communities Solid Waste Management Board (NWCB)	Erie	Amherst (Town)
		Grand Island (Town)
		Kenmore (Village)
		Tonawanda (Town/Village)
		Williamsville (Village)

TABLE 4-1
CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SERVICE AREA PLANNING UNIT/WASTE ORIGIN

Municipalities Not Currently Affiliated With a Recognized Planning Unit

County	Non-Member Municipality
Erie	Buffalo (City)

TABLE 16-1

CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
CONCEPTUAL CLOSURE / POSTCLOSURE COSTS

CLOSURE COSTS

Item	Units	Quantity	Unit Cost	Total
Final Cover Installation	acres	99.3	$153,436	$15,236,211
Stormwater Management Features [1]	acres	99.3	$10,000	$993,000
Groundwater / Surfacewater Monitoring	lump sum	1	$89,718	$89,718
Leachate Management	lump sum	1	$144,525	$144,525
Landfill Gas and Air	lump sum	1	$50,012	$50,012
Exit Closure Costs	lump sum	1	$164,000	$164,000
			TOTAL	**$16,677,466**
		TOTAL w/ 10% CONTINGENCY		**$18,345,213**

POSTCLOSURE COSTS

Item		Total (Current $)
Leachate Management		$4,335,750
Landfill Gas Management		$1,635,360
Operation & Maintenance		$1,438,050
Groundwater / Surfacewater Monitoring		$2,896,540
	TOTAL	**$10,305,700**
	TOTAL w/ 10% CONTINGENCY	**$11,336,270**

CONTENTS:	**LOCATION:**
Final Cover "Per Acre" Unit Cost	Table 2 - Page 1 of 3
Stormwater Management Features	Table 1 - Page 1 of 1
Exit Closure Costs	Table 2 - Page 2 of 3
Leachate Management Costs	Table 2 - Page 3 of 3
Landfill Gas Management Costs	Table 2 - Page 3 of 3
Operations & Maintenance Costs	Table 2 - Page 2 of 3
Groundwater / Surfacewater Monitoring Costs	Table 2 - Page 2 of 3

NOTES:

1 - Stormwater management features include, midslope swales, downchutes, etc. on a per acre basis.

TABLE 16-2

CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
CONCEPTUAL CLOSURE COSTS

	Item	Comments or remaining site quantity	Units	Unit Cost	T (ft)	% of Area	Average Quantity per Acre	Average Cost per Acre
Admin	Construction Drawings		acre	1,500.00		100	0.00	1,500
	Bid Package		acre			100	0.00	0
	Construction Management		acre	6,000.00		100	0.00	6,000
	General project management		acre	$2,000.00		100	1.00	$2,000
Earthwork	Mob/Demob - Contractor		acre	$5,000.00		100	1.00	$5,000
	CQA/surveying - earthwork and soil cap		acre	$3,500.00		100	1.00	$3,500
	Erosion and sediment control		acres	$3,000.00		100	1.00	$3,000
	Perimeter berm		cy				0.00	0
	Fine grading		acre	$2,000.00		100	1.00	$2,000
	Structural fill layer		cy				0.00	0
	Subbase Soil Preparation		acre	$2,420.00		100	1.00	$2,420
	Weep Drains		acre	$1,500.00			2.00	$3,000
Geosynthetics	CQA/surveying - geosynthetics		acre	$5,000.00		100	1.00	$5,000
	Mob/Demob: geosynthetics contractor		acre	$4,200.00		100	0.08	$336
	Geomembrane - material	40 mil LLDPE text.	sf	$0.20		100	43,560.00	$8,712
	Geosynthetic Cap Liner (GCL) materials	Plateau	sf	$0.24		25	10,890.00	$2,614
	Geomembrane - installation	40 mil LLDPE text.	sf	$0.11		100	43,560.00	$4,792
	Geosynthetic Cap Liner (GCL) - installation	Plateau	sf	$0.13		25	10,890.00	$1,416
	Misc. boots, rubsheets, flaps, etc.		acre	$235.00			1.00	$235
Drainage and Cover Layers	Drainage layer - material		sf	$0.30		100	43,560.00	$13,068
	Drainage layer - installation		sf	$0.13		100	43,560.00	$5,663
	Gas venting layer - material		sf	$0.30		100	43,560.00	$13,068
	Gas venting layer - installation		sf	$0.13		100	43,560.00	$5,663
	Protective cover soil		cy	$15.50	2	100	3,226.67	50,013
	Topsoil		cy	$2.50	0.5	100	806.67	$2,017
	Topsoil Placement & Grading		cy	$6.10	0.5	100	806.67	$4,921
	Vegetation and seeding		acre	$4,000.00		100	1.00	$4,000
	Drainage control berms: rem. site qty:		acre			100		
	Downspouts: rem. site qty:		each					
	Estimated Sales Tax		acre	$3,500.00		100	1.00	$3,500
								0
							Average Cap Unit Cost Per Acre	$153,436

TABLE 16-2 (continued)

CHAFFEE LANDFILL
CLOSURE COSTS

Cost Summary - Area 7/8 Development

Exit Closure Costs

Exit Closure and Post-Closure Schedule		
First Year of Closure	2033	
Exit Closure Construction and Certification Period	1	
First Year of Post-Closure Period	2034	
Regulatory Post-Closure Period	30	
Final Year of Post-Closure Period	2064	

Exit Closure Construction and Certification	Units	Unit Cost	Quantity	Cost
Drainage and site work	lump sum		1.00	$0
Engineering (Final Reports, Modifications, Certifications)	lump sum	$58,000	1.00	$58,000
Deed records update	lump sum	$1,000	1.00	$1,000
Demobilization and Demolition	lump sum	$5,000	1.00	$5,000
Final increment of landfill gas well field, installed during exit closure period	acre	$10,000	10.00	$100,000
			Total Exit Closure Cost	$164,000

POST CLOSURE COSTS

Operation, maintenance, and admin costs through post closure	Units	Unit Cost	Annual Quantity	Annual Cost
Cap repair, general earthwork, labor, equipment, surveying	acre	$174	135	$23,490
Seeding and fertilizing cap	acre	$8	135	$1,080
Mowing	acre	$25	135	$3,375
Surface water management maintenance	acre	$7	135	$945
Building security, repairs, and demolition	acre	$7	135	$945
Fence and road maintenance, snow removel	acre	$60	135	$8,100
Utilities (excluding LFG and leachate equipment)	annual	$0	1.00	$0
Inspections, Reports and Management	annual	$10,000	1.00	$10,000
Permits and renewals	annual			0
			Total Annual OMA Cost:	$47,935
		Postclosure Period		30
		Total Current Cost		$1,438,050

Groundwater & surface water monitoring costs through post closure

Surface Water / Stormwater	No. of points	Unit cost	Ann. Frequency	Annual Cost
Number of sample points	8			0
Surface water / Stormwater and Sediment sampling and analytical	8	$325	4.00	$10,400
Surface water analytical QA and statistics				Inc. w/ grnd.water
Groundwater				
Number of groundwater wells	41			0
Groundwater analytical, baseline parameters	41	$477	1.00	$19,557
Groundwater analytical, routine parameters	41	$217	3.00	$26,691
Groundwater analytical, PFAS in Area 7/8 Wells	6	$500	1.00	$3,000
Groundwater well sampling, per well	41	$100	4.00	$16,400
Groundwater analytical QA and statistics	each	$200	4.00	$800
Report Preparation	each	$2,500	4.00	$10,000
Well Maintenance (20% maintenance each year)	41	$350	0.20	$2,870
			Total Annual Groundwater and Surface Water Cost	$89,718
			Groundwater Monitoring period	30
		Total Current Cost		$2,691,540

Groundwater Well Decommissioning	No. of points	Unit cost		Cost
Groundwater Well Decommissioning	41	$5,000	1.00	$205,000
		Year cost incurred		2064

TABLE 16-2 (continued)

CHAFFEE LANDFILL - POST CLOSURE COSTS

COST SUMMARY - Area 7/8 Development

Leachate Management Through Post Closure	Data	Units	Unit Cost	Annual Quantity		Annual Cost
No. of Years Leachate will be generated	30					
Total disposal area size (acres)	135	Refers to acreage of leachate collection (base grades)				
Total gallons generated	33,750,000					
Leachate disposal cost		gal	$0.065	1,125,000		$73,125
Primary Leachate/Condensate Sampling & Analysis	3 points @ $250	semi-annual	$750	2.00		$1,500
Sec. Leachate/Underdrain Sampling & Analysis	11 points @ $250	semi-annual	$2,750	4.00		$11,000
Leachate / Condensate Analytical QA		annual	$800	2.00		$1,600
Leachate / Condensate Sampling Report Prep.		annual	$1,500	2.00		$3,000
Leachate Management System Repairs/Maint.		annual	$1,500	1.00		$1,500
Leachate Line and Tank Cleaning		annual	$35,000	1.00		$35,000
Electricity: Pumps, etc.		annual	$1,800	1.00		$1,800
System Monitoring / Disposal Coordination		annual	$6,000	1.00		$6,000
Leachate Collection System O&M		lump sum	$10,000	1.00		$10,000
				Leachate Management Costs		$144,525
				Leachate Management Period		30
				Total Current Cost		$4,335,750

Landfill Gas Management (1st year NMOC< 34Mg/yr) through	Data 2064	Units	Unit Cost	Annual Quantity		Annual Cost
Collection System Repair and Replacement						$16,660
Blower Replacements		each	$2,000	1.00		$2,000
Flare Maintenance		annual	$1,600	1.00		$1,600
Electricity: Blower		annual	$4,055	1.00		$4,055
System Operation and Inspection		annual	$9,800	1.00		$9,800
Condensate Disposal		$/gal	0.065	50,000		$3,250
Condensate Sampling and Testing		annual	$840	1.00		$840
NSPS Monit. / Perim Gas Probe tests & reports		annual	$4,000	1.00		$4,000
Title V Emissions Fee		annual	$4,007	1.00		$4,007
Title V Operating Permit		annual	$3,800	1.00		$3,800
			Landfill Gas Management Costs			$50,012
				NSPS Compliance Period (yrs)		30
				Total Current Cost		$1,500,360
Perimeter Probe Monitoring (through post closure)		annual	$4,000	1.00		$120,000
LFG System Decommissioning		lump sum	$15,000	1.00		$15,000

FIGURES

N

THOMAS SCHAUS
TAX MAP ID 295.07-1-3

THOMAS SCHAUS
TAX MAP ID 295.07-1-5

JOSIE L. OLYMPIA
TAX MAP ID 295.06-1-14

WETLAND 7

Stream 1

WETLAND 8/
Pond 3

DENNIS HATRICK
TAX MAP ID 295.07-1-6

WETLAND
10

Pond 2

PROPOSED BORROW
AREA C

WETLAND 9

NYSDEC
WETLAND
AR-11

FOUR LAKES
MANAGEMENT LLC
TAX MAP ID 279.00-3-40.1

HAND ROAD (66' WIDE R.O.W.)

ASHLEY PAGLIA
TAX MAP ID 295.08-1-4

SITE ACCESS GATE

ACCESS ROAD

LEACHATE COLLECTION
SUMP #5

VALLEY FILL
LANDFILL LIMIT

SITE
ACCESS
GATE

INACTIVE
HAZARDOUS
WASTE SITE
LIMITS

CONSTRUCTED
CELL 6

CONSTRUCTED
CELL 4

CONSTRUCTED
CELL 2

PROPOSED VERTICAL
HEIGHT INCREASE LIMIT

OVERLINER
CELL 2

LEACHATE
COLLECTION
SUMP #1

WESTERN
LANDFILL LIMIT

CLOSED
LANDFILL

LEACHATE
STORAGE TANK
#1 AND
LOADOUT PAD

CONDENSATE
STORAGE TANK

STORAGE
BUILDING

FLARE STATION

POWER
PRODUCTION
PLANT

OVERLINER
CELL 1

CONSTRUCTED
CELL 5

CONSTRUCTED
CELL 1

LEACHATE
COLLECTION
SUMP #2

CONSTRUCTED
CELL 3

SEDIMENTATION
BASIN #4

ROLLOFF
STORAGE AREA

FUELING AREA

SCALE AREA

LEACHATE
STORAGE TANK
#2 AND LOADOUT
PAD

OVERLINER
CELLS 7/8

ACCESS ROAD

CELL 1 SOUTH

TANK #3/#4
MANHOLE

PROPOSED AREA 7/8
DEVELOPMENT

ACCESS ROAD

DOUGLAS G. MORRELL
TAX MAP ID 295.00-1-1.1

WATER SUPPLY WELL AND LINE

LEACHATE LOADOUT BUILDING

LEACHATE STORAGE TANK AREA

LEACHATE TANKER HAUL ROAD

SEPTIC TANK AND LINE

SEDIMENTATION
BASIN #5

CELL 8

CELL 7

WEST BORROW AREA
(RECLAIMED)

NYSDEC WETLAND AR-11

NYSDEC 100' WETLAND BUFFER

EAST BORROW AREA
(ACTIVE)

NYSDEC WETLAND
SD-1

Pond 1

WETLAND

SEDIMENTATION
BASIN #1

SEDIMENTATION
BASIN #2

SEDIMENTATION
BASIN #3

MAINTENANCE
BUILDING

EQUIPMENT WASH BAY

WELDING SHOP

SITE ACCESS GATE
GARAGE

PREVITY'S AUTO WRECKING
TAX MAP ID 295.00-2-31

ROUTE 20

THOMAS
TAVERNIER
TAX MAP ID
295.00-2-30

RECYCLING CENTER

SITE ACCESS
GATE

MK PHELPS FARM, INC
TAX MAP ID 295.00-2-24.11

WETLAND 11

NYSDEC WETLAND
SD-1

WETLAND 12

NYSDEC
WETLAND SD-1

WETLAND
MITIGATION
AREA

EXISTING
GRAVEL
BORROW
AREA

DANIEL SAWICKI
TAX MAP ID 295.00-1-5

POND 4
RECLAIMED
BORROW
AREA "B"

PROPOSED SOUTH
BORROW AREA

MATCHLINE A

MK PHELPS FARM, INC

MATCHLINE A

POND 4
RECLAIMED
BORROW
AREA "B"

KRAMER FARMLAND LLC.
TAX MAP ID 295.00-3-3.11

ALLEN ROAD (66' WIDE R.O.W.)

LEGEND

- EXISTING CONTOURS (SEE NOTE 1 ON FIGURE 3)
- EXISTING STORMWATER BASIN
- EXISTING CULVERT
- EXISTING RIP-RAP
- CLOSED LANDFILL'S CLAY BERM
- PROPERTY LINE (SEE NOTE 2 ON FIGURE 3)
- APPROXIMATE CELL BOUNDARIES
- APPROXIMATE BORROW AREA LIMIT
- 100' WETLAND BUFFER (STATE WETLANDS ONLY)
- DELINEATED JURISDICTIONAL WETLAND

0 600 1200

SCALE IN FEET

NOTES:

1. Existing site contours are based on aerial photography dated February 12, 2001 and November 22, 2001 compiled by Lockwood Mapping Inc. of Rochester, NY, Aero-Metric, dated July 10, 2012 and Quantum Spatial dated June 11, 2018. Additional topography to better reflect the main landfill area 2019 conditions has been incorporated and are based on photogrammetric methods from aerial photography dated 6/8/2019 compiled by Quantum Spatial of Dulles, Virginia. Grid based on NY West NAD83 coordinate system vertical datum based on NAVD 1988.
2. Property lines are based on surveys performed by Deborah A. Naybor, PLS, P.C. dated June 2001 and by Gary E. Krull dated March 1994.
3. Survey of delineated wetlands was prepared by Deborah A. Naybor, PLS, P.C. dated August 2001, Wendel Duchscherer Survey dated September 16, 2008 and by Wendel survey dated November 21, 2017.

cornerstone PLLC

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CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

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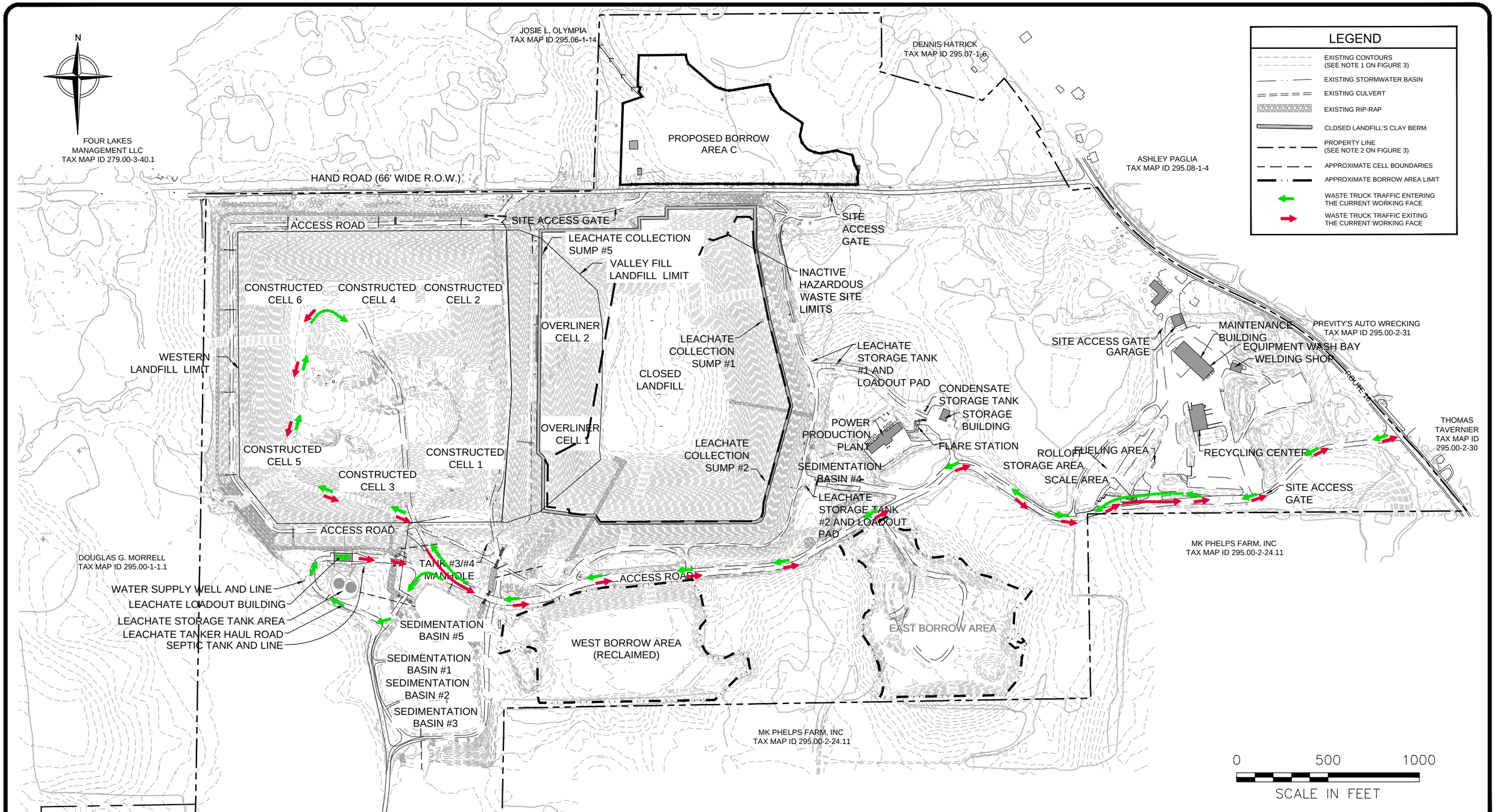
CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SARDINIA, ERIE COUNTY, NEW YORK

FACILITY MANUAL
GENERAL SITE PLAN

FIGURE NO.
1-1
PROJECT NO.
190260



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CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SARDINIA, ERIE COUNTY, NEW YORK

FACILITY MANUAL
EXISTING TRAFFIC FLOW PLAN

FIGURE NO.
1-2
PROJECT NO.
190260

N

FOUR LAKES MANAGEMENT LLC TAX MAP ID 279.00-3-40.1

JOSIE L. OLYMPIA TAX MAP ID 295.06-1-14

WETLAND 7

Stream 1

WETLAND 8/ Pond 3

Pond 2

PROPOSED BORROW AREA C

DENNIS HATRICK TAX MAP ID 295.07-1-6

WETLAND 10

WETLAND 9

NYSDEC WETLAND AR-11

ASHLEY PAGLIA TAX MAP ID 295.08-1-4

HAND ROAD (66' WIDE R.O.W.)

ACCESS ROAD

SITE ACCESS GATE

LEACHATE COLLECTION SUMP #5

VALLEY FILL LANDFILL LIMIT

INACTIVE HAZARDOUS WASTE SITE LIMITS

SITE ACCESS GATE

WESTERN LANDFILL LIMIT

VERTICAL LANDFILL EXPANSION

LEACHATE COLLECTION SUMP #1

CLOSED LANDFILL

LEACHATE STORAGE TANK #1 AND LOADOUT PAD

CONDENSATE STORAGE TANK

STORAGE BUILDING

POWER PRODUCTION PLANT

FLARE STATION

SEDIMENTATION BASIN #4

LEACHATE COLLECTION SUMP #2

LEACHATE STORAGE TANK #2 AND LOADOUT PAD

ROLLOFF STORAGE AREA

SCALE AREA

FUELING AREA

RECYCLING CENTER

SITE ACCESS GATE

SITE ACCESS GATE GARAGE

MAINTENANCE BUILDING

EQUIPMENT WASH BAY

WELDING SHOP

PREVITY'S AUTO WRECKING TAX MAP ID 295.00-2-31

ROUTE 16

THOMAS TAVERNIER TAX MAP ID 295.00-2-30

MK PHELPS FARM, INC TAX MAP ID 295.00-2-24.11

ACCESS ROAD

DOUGLAS G. MORRELL TAX MAP ID 295.00-1-1.1

WATER SUPPLY WELL AND LINE

LEACHATE LOADOUT BUILDING

LEACHATE STORAGE TANK AREA

LEACHATE TANKER HAUL ROAD

SEPTIC TANK AND LINE

CELL 7

CELL 8

OVERLINER CELLS 7&8

CELL 7 SOUTH

SEDIMENTATION BASIN #1

SEDIMENTATION BASIN #2

SEDIMENTATION BASIN #3

PROPOSED MSE BERM

Pond 1

WETLAND 1

NYSDEC WETLAND AR-11

EAST BORROW AREA (ACTIVE)

NYSDEC WETLAND SD-1

MK PHELPS FARM, INC TAX MAP ID 295.00-2-24.11

PROPERTY LINE

PROPOSED SOUTHERN LANDFILL EXPANSION LIMIT

WETLAND 11

NYSDEC WETLAND SD-1

TO PROPOSED SOUTH BORROW AREA

WETLAND 12

NYSDEC WETLAND SD-1

LEGEND

- EXISTING CONTOURS (SEE NOTE 1)
- CONCEPTUAL FINAL GRADE CONTOURS
- PERMITTED FINAL GRADE CONTOURS
- PROPERTY LINE (SEE NOTE 2)
- EXTENT OF CLAY TILL (SEE NOTE 4)
- WASTE TRUCK TRAFFIC ENTERING THE CURRENT WORKING FACE
- WASTE TRUCK TRAFFIC EXITING THE CURRENT WORKING FACE
- SOIL TRUCK TRAFFIC ENTERING THE CURRENT WORKING FACE
- SOIL TRUCK TRAFFIC EXITING THE CURRENT WORKING FACE

0 500 1000

SCALE IN FEET

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CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SARDINIA, ERIE COUNTY, NEW YORK

FACILITY MANUAL
PROPOSED TRAFFIC FLOW PLAN

FIGURE NO.
1-3

PROJECT NO.
190260

File: D:\PROJECTS\190260 – SOUTHERN EXPANSION TITLE_Project Drawings\FACILITY MANUAL FIGURES\190260–FACILITY–FIGURE 8–1 (LEACHATE PLAN).dwg Layout: FIGURE 2 User: DAVID.STENSHORN Jun 22, 2020 – 1:36pm

N

LEGEND

- EXISTING CONTOURS (SEE NOTE 1 ON FIGURE 3)
- EXISTING STORMWATER BASIN
- EXISTING CULVERT
- EXISTING RIP-RAP
- CLOSED LANDFILL'S CLAY BERM
- PROPERTY LINE (SEE NOTE 2 ON FIGURE 3)
- APPROXIMATE CELL BOUNDARIES
- LEACHATE TRANSMISSION LINES
- LEACHATE COLLECTION PIPE
- 1.0% SLOPE — PROPOSED 12"/8" DUAL CONTAINED TRANSMISSION LINE SLOPE AND FLOW DIRECTION
- C.O. — CLEANOUT RISER AND DIRECTION OF CLEANING
- LANDFILL FLOOR AREAS AT LESS THAN 25% SLOPE
- LANDFILL FLOOR AREAS BETWEEN 25% AND 33% SLOPE
- LEACHATE COLLECTION LATERAL (PRIMARY)
- LEACHATE COLLECTION LATERAL (SECOND)
- LEACHATE TRANSMISSION HEADER (PRIMARY)
- LEACHATE TRANSMISSION HEADER (SECOND)
- LEACHATE TRANSMISSION FORCE MAIN

12"/8" HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINE

APPROX. INV. ELEV. 1483

TWO 18" HDPE PRIMARY SUMP COLLECTION AND RISER PIPES

18" AND 12" SUMP COLLECTION RISER PIPES (TYP.)

SUMP AREA (TYP.)

8" AND 6" COLLECTION PIPES (TYP.)

APPROX. INV. ELEV. 1483.9

APPROX. INV. ELEV. 1482.7

TRANSITION TO 6" 0° HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINE (APPROX. INV. ELEV 1503.7)

CAP AND TERMINATE 6"/3" LEACHATE TRANSMISSION LINE (APPROX. INV. ELEV 1528.9)

LEACHATE COLLECTION SUMP #5 TO BE MODIFIED PRIOR TO CELL 2 CONSTRUCTION

LEACHATE LINE CLEANOUT

LEACHATE LINE CLEANOUT LOCATION. PROVIDE REMOVABLE END CAP

GAS CONDENSATE MANHOLE AND DRAIN CONNECTION

CONSTRUCTED CELL 6

CONSTRUCTED CELL 4

CONSTRUCTED CELL 2

OVERLINER CELL 2

4" HDPE SECONDARY COLLECTION PIPES (TYP.)

8" HDPE PRIMARY COLLECTION PIPES (TYP.)

ALL PIPE BENDS SHALL NOT INCLUDE HARD 90° ELBOWS, BUT SHALL BE MADE BY COLD BENDING THE PIPE TO ITS ALLOWABLE RADIUS BASED ON DIAMETER AND SDR

CONSTRUCTED CELL 1

CONSTRUCTED CELL 3

OVERLINER CELL 1

CONSTRUCTED CELL 5

PROPOSED 10"/6" HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINE

12"/8" HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINES

12"/8" HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINE

PROPOSED 8"/4" HDPE DUAL CONTAINED LEACHATE TRANSMISSION FORCE MAIN FROM RELOCATED LEACHATE COLLECTION SUMP #3/#4 MANHOLE

12" HDPE SECONDARY SUMP COLLECTION AND RISER PIPE (TYP.)

LEACHATE COLLECTION SUMP #3/#4 MANHOLE

OVERLINER CELL 7

GAS CONDENSATE DRAIN CONNECTION

CELL 1 SOUTH

6"/4" HDPE DUAL CONTAINED LEACHATE TRANSMISSION LINE

LEACHATE COLLECTION SUMP #5 MANHOLE

CONTAINMENT VAULT

WATER SUPPLY WELL AND LINE

SEDIMENTATION BASIN #5

LEACHATE LOADOUT BUILDING

ABOVE GROUND LEACHATE STORAGE TANK #1

ABOVE GROUND LEACHATE STORAGE TANK #2

LEACHATE STORAGE TANK AREA

SEPTIC TANK AND LINE

EXTEND OVERLINER CELL 1 8" DIA SECONDARY AND PRIMARY CLEANOUTS

PROPOSED CELL 7 8" DIA SECONDARY COLLECTION AND CLEANOUT

PROPOSED CELL 8 8" DIA SECONDARY COLLECTION AND CLEANOUT

PROPOSED 8" DIA PRIMARY AND SECONDARY CLEANOUTS

PROPOSED CELL 7 8" DIA PRIMARY COLLECTION AND CLEANOUT

FUTURE CELL 7

FUTURE CELL 8

2.5%

PROPOSED CELL 8 8" DIA PRIMARY COLLECTION AND CLEANOUT

SUMP EL.1450.0

SUMP EL.1450.0

SEDIMENTATION BASIN #1

SEDIMENTATION BASIN #2

SEDIMENTATION BASIN #3

PROPOSED MSE BERM

PROPERTY LINE

PROPOSED GAS SYSTEM CONDENSATE SUMP

TWO PROPOSED 18" HDPE PRIMARY SUMP COLLECTION AND ONE PROPOSED 12" HDPE SECONDARY SUMP COLLECTION RISER PIPES WITH PRIMARY AND SECONDARY CLEANOUTS (TYP. CELL 7 AND CELL 8 SUMPS)

PROPOSED HDPE DUAL CONTAINED LEACHATE TRANSMISSION FORCE MAIN TRANSITION TO 10"/6"

PROPOSED 12"/6" HDPE DUAL CONTAINED LEACHATE TRANSMISSION FORCE MAIN SIZED TO ACCOMMODATE FLOWS FROM CELL 7/8 AND EXISTING SYSTEM

LEACHATE COLLECTION SUMP #1

LEACHATE STORAGE TANK #1 AND LOADOUT PAD

CONDENSATE STORAGE TANK

FLARE STATION

LEACHATE COLLECTION SUMP #2

LEACHATE STORAGE TANK #2 AND LOADOUT PAD

PROPOSED 8" DIA PRIMARY COLLECTION AND CLEANOUT

PROPOSED 8" DIA PRIMARY CLEANOUT

EXTEND OVERLINER CELL 1 8" DIA PRIMARY CLEANOUT

PROPOSED 8" DIA PRIMARY CLEANOUT

PROPOSED 6" DIA SECONDARY CLEANOUT

PROPOSED FORCEMAIN CLEANOUT

PROPOSED 12" HDPE SECONDARY SUMP COLLECTION AND RISER PIPE WITH 6" SECONDARY CLEANOUT (TYP.)

PROPOSED 8" DIA PRIMARY CLEANOUTS

PROPOSED 10"/6" HDPE DUAL CONTAINED LEACHATE TRANSMISSION FORCE MAIN SIZED TO ACCOMMODATE FLOWS FROM CELL 7/8 AND EXISTING SYSTEM

0 400 800

SCALE IN FEET

cornerstone PLLC

PREPARED BY:
CORNERSTONE ENGINEERING, GEOLOGY AND LAND SURVEYING, PLLC

ALL PROFESSIONAL ENGINEERING WORK IS PERFORMED BY DULY LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

CHAFFEE FACILITY
AREA 7/8 DEVELOPMENT
SARDINIA, ERIE COUNTY, NEW YORK

FACILITY MANUAL
LEACHATE PLAN

FIGURE NO.
8-1
PROJECT NO.
190260

APPENDIX A

FORMS

APPENDIX A-1

Special Waste Profile

EZ Profile™

Requested Facility: _____ ❑ Unsure Profile Number: _____

❑ Multiple Generator Locations (Attach Locations) ❑ Request Certificate of Disposal ❑ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: _____
2. Site Address: _____
   (City, State, ZIP) _____
3. County: _____
4. Contact Name: _____
5. Email: _____
6. Phone: _____ 7. Fax: _____
8. Generator EPA ID: _____ ❑ N/A
9. State ID: _____ ❑ N/A

B. BILLING INFORMATION ❑ SAME AS GENERATOR

1. Billing Name: _____
2. Billing Address: _____
   (City, State, ZIP) _____
3. Contact Name: _____
4. Email: _____
5. Phone: _____ 6. Fax: _____
7. WM Hauled? ❑ Yes ❑ No
8. P.O. Number: _____
9. Payment Method: ❑ Credit Account ❑ Cash ❑ Credit Card

C. MATERIAL INFORMATION

1. Common Name: _____
   Describe Process Generating Material: ❑ See Attached

2. Material Composition and Contaminants: ❑ See Attached

1.	
2.	
3.	
4.	
Total comp. must be equal to or greater than 100%	≥100%

3. State Waste Codes: _____ ❑ N/A
4. Color: _____
5. Physical State at 70˚F: ❑ Solid ❑ Liquid ❑ Other: _____
6. Free Liquid Range Percentage: _____ to _____ ❑ N/A
7. pH: _____ to _____ ❑ N/A
8. Strong Odor: ❑ Yes ❑ No Describe: _____
9. Flash Point: ❑ <140˚F ❑ 140˚–199˚F ❑ ≥200˚ ❑ N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ❑ Yes* ❑ No
   Code: _____
2. State Hazardous Waste? ❑ Yes ❑ No
   Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? ❑ Yes* ❑ No
4. Contains Underlying Hazardous Constituents? ❑ Yes* ❑ No
5. From an industry regulated under Benzene NESHAP? ❑ Yes* ❑ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ❑ Yes* ❑ No
7. CERCLA or State-mandated clean-up? ❑ Yes* ❑ No
8. NRC or State-regulated radioactive or NORM waste? ❑ Yes* ❑ No

***If Yes, see Addendum (page 2) for additional questions and space.**

9. Contains PCBs? → If Yes, answer a, b and c. ❑ Yes ❑ No
   a. Regulated by 40 CFR 761? ❑ Yes ❑ No
   b. Remediation under 40 CFR 761.61 (a)? ❑ Yes ❑ No
   c. Were PCB imported into the US? ❑ Yes ❑ No
10. Regulated and/or Untreated Medical/Infectious Waste? ❑ Yes ❑ No
11. Contains Asbestos? ❑ Yes ❑ No
    → If Yes: ❑ Non-Friable ❑ Non-Friable – Regulated ❑ Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ❑ Yes
   Please identify applicable samples and/or lab reports:

2. Other information attached (such as MSDS)? ❑ Yes

F. SHIPPING AND DOT INFORMATION

1. ❑ One-Time Event ❑ Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: _____
   ❑ Tons ❑ Yards ❑ Drums ❑ Gallons ❑ Other: _____
3. Container Type and Size: _____
4. USDOT Proper Shipping Name: ❑ N/A
   _____

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

❑ I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name (Print): _____ Date: _____

Title: _____

Company: _____

Certification Signature

EZ Profile™ Addendum

Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: _____

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

5.	
6.	
7.	
8.	
9.	
Total composition must be equal to or greater than 100%	≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers:

   b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? ❑ Yes ❑ No
   c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. ❑ Yes ❑ No
   d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? ❑ Yes ❑ No
      → If Yes, please check **one** of the following:
      ❑ Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
      ❑ Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.
2. State Hazardous Waste → Please list all state waste codes: _____
3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:
   ❑ Delisted Hazardous Waste ❑ Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
   ❑ Treated Hazardous Waste Debris ❑ Treated Characteristic Hazardous Waste → If checked, complete question 4.
4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.
   a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. ❑ Yes ❑ No
   b. Does this material contain benzene? ❑ Yes ❑ No
      1. If yes, what is the flow weighted average concentration? _____ ppmw
   c. What is your facility's current total annual benzene quantity in Megagrams? ❑ <1 Mg ❑ 1–9.99 Mg ❑ ≥10 Mg
   d. Is this waste soil from a remediation? ❑ Yes ❑ No
      1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
   e. Does the waste contain >10% water/moisture? ❑ Yes ❑ No
   f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? ❑ Yes ❑ No
   g. Is material exempt from controls in accordance with 40 CFR 61.342? ❑ Yes ❑ No
      → If yes, specify exemption: _____
   h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? ❑ Yes ❑ No
6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? ❑ Yes ❑ No
7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.
8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____

Revised June 30, 2015

Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

Material Composition and Contaminants (Continued from page 2): If more space is needed, please attach additional pages.

10.	
11.	
12.	
13.	
14.	
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16.	
17.	
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21.	
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23.	
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30.	
31.	
32.	
33.	
34.	
35.	
36.	
37.	
38.	
39.	
40.	
Total composition must be equal to or greater than 100%	≥100%

D. REGULATORY INFORMATION

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers (Continued from page 2):

2. Form Code:

3. Source Code:

Additional Profile Information

Profile Number: _____

F. SHIPPING AND DOT INFORMATION

4. USDOT Proper Shipping & Technical Name (Continued from page 1):

2.	❑ N/A
3.	❑ N/A
4.	❑ N/A
5.	❑ N/A
6.	❑ N/A
7.	❑ N/A
8.	❑ N/A
9.	❑ N/A
10.	❑ N/A
11.	❑ N/A
12.	❑ N/A
13.	❑ N/A
14.	❑ N/A
15.	❑ N/A
16.	❑ N/A
17.	❑ N/A
18.	❑ N/A
19.	❑ N/A
20.	❑ N/A
21.	❑ N/A
22.	❑ N/A
23.	❑ N/A
24.	❑ N/A
25.	❑ N/A
26.	❑ N/A
27.	❑ N/A
28.	❑ N/A
29.	❑ N/A
30.	❑ N/A
31.	❑ N/A
32.	❑ N/A
33.	❑ N/A
34.	❑ N/A
35.	❑ N/A
36.	❑ N/A
37.	❑ N/A
38.	❑ N/A
39.	❑ N/A
40.	❑ N/A
41.	❑ N/A
42.	❑ N/A
43.	❑ N/A
44.	❑ N/A
45.	❑ N/A
46.	❑ N/A
47.	❑ N/A
48.	❑ N/A
49.	❑ N/A
50.	❑ N/A
51.	❑ N/A

Revised June 30, 2015

Additional Profile Information

Profile Number: _____

C. MATERIAL INFORMATION

3. State Waste Codes (Continued from page 1):

2.
3.
4.
5.
6.
7.
8.
9.
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19.
20.
21.

Revised June 30, 2015

APPENDIX A-2

Waste Hauler Inspection Form

Waste Management of New York, LLC, Chaffee Landfill
Weekly Waste Hauler Inspection Form

DATE: _____ MANAGER: _____

INSPECT THE: _____ TRUCK ON: _____

TICKET NUMBER: _____ GENERATOR: _____

WASTE TRANSPORTER: _____

NYSDEC WASTE HAULER PERMIT NUMBER: _____

TRUCK LICENSE NUMBER: _____

WASTE TYPE: _____

ARE ANY OF THE FOLLOWING ITEMS PRESENT IN THE LOAD?

IDENTIFIABLE HAZARDOUS	BULK/FREE LIQUIDS	UNAPPROVED INDUSTRIAL COMMERCIAL WASTE	SMOLDERING OR BURNING WASTE	SUSPICIOUS WASTE
YES ☐	YES ☐	YES ☐	YES ☐	YES ☐
NO ☐	NO ☐	NO ☐	NO ☐	NO ☐

RESULTS OF INSPECTION: _____

IF ANSWER TO ANY OF THESE ITEMS IS "YES", IMPLEMENT THE UNAUTHORIZED WASTE SECTION OF THE FACILITY MANUAL

INSPECTOR SIGNATURE: _____

TITLE: _____

DATE & TIME: _____

DRIVER SIGNATURE: _____

PRINTED NAME: _____

APPENDIX A-3

Active Landfill Environmental Inspection Form

ACTIVE LANDFILL ENVIRONMENTAL INSPECTION FORM

FACILITY NAME: INSPECTION DATE:
LOCATION:
CITY: STATE: ZIP CODE:
PERMITTED ACREAGE: CURRENT DISPOSAL RATE:
HOURS OF OPERATION: a.m., until p.m.
WEATHER (during inspection): Temperature: Conditions:

SIGNATURES:

Evaluator: DATE:

District Manager: DATE:

Next Scheduled Inspection Date:

ENTRANCE & ROADWAYS	**Y**	**N**	**NA**
1. Signs posted with adequate information? (Entrance, traffic control, safety, etc.)			
2. Access controlled with gate, perimeter fences, and "No Trespassing" signs in appropriate languages?			
3. Accurate determination of waste quantity?			
4. CCTV in place and operable?			
5. Site entrance, access routes free of litter?			
6. Entrance road graded and properly drained?			
7. Access roads graded and drainage provided to ensure wet weather access?			
8. Tracking of mud and trash onto off-site access roads is minimized?			
9. Site attended during all hours of operation?			
DISPOSAL AREA			
10. Adequate site preparation (e.g., cover material stockpiled, liners installed before winter)?			
11. Markers indicating extent of certified areas are in place?			
12. Unloading controlled?			
13. Containers provided to public and readily accessible *(Citizens Use)?*..			
14. Public operation separate from commercial operation (Citizens Use)?			
15. Working face(s) confined to smallest practical area(s)?			
16. Waste spread in uniform layers of 2 feet thick or less?			
17. Waste compacted with appropriate number of passes (recommend 3)?			
18. Lift height adequate (recommend 8-14 feet)?			
19. Blowing debris controlled?			
20. Effective litter control program(s) implemented?			
21. Daily cover applied and compacted as required or alternate daily cover is approved and implemented?			

ACTIVE LANDFILL ENVIRONMENTAL INSPECTION FORM

DISPOSAL AREA (cont'd)	**Y**	**N**	**NA**
22. Intermediate cover applied and compacted as required?			
23. Vegetation established over intermediate areas inactive for greater			
one growi.ng season?.			
24. Final cover applied and compacted as required?			
25. Vegetation established over fill areas with final cover?			
26. Scavenging prohibited?			
DRAINAGE			
27. Surface water diverted from active face?			
28. Adequate contaminated water containment at active face?			
29. Slopes properly graded			
30. Erosion control of cover controlled?			
31. Ditches, canals, impoundments, and associated drainage structures maintained?			
32. Flood protection provided and markers installed as required?			
33. NPDES permits (or state equivalent) obtained where applicable?			
34. Facility is void of standing water where unwanted wetlands may develop?			
OPERATING PLAN			
35. Active fill area in proper location?			
36. Fill progression in accordance with plan?			
37. Excavation slopes and depth in accordance with plan?			
38. Fill height and slope control measures in place?			
39. Fill height and slopes built and in accordance with plans?			
40. All required facilities provided and constructed in accordance with plan?			
ENVIRONMENTAL CONTROLS			
41. Emergency Management Plan in place and up to date?			
42. Fire protection readily available?			
43. Leachate Management Plan approved and implemented?			
44. Leachate collection system constructed according to plans?			
45. Leachate risers and manholes properly secured?			
46. Leachate treatment system performing properly?			
47. Surface outbreaks of leachate are being properly controlled?			
48. Discharge of contaminated water is prevented?			
49. Current ground water monitoring well inspections in file?			
50. No evidence of ground water contamination?			
51. Effective dust control measures in place?			
52. Effective odor control measures in place?			

ACTIVE LANDFILL ENVIRONMENTAL INSPECTION FORM

ENVIRONMENTAL CONTROLS (con't)

	Y	N	NA
53. Effective vector control measures implemented?			
54. Open burning non-existent?			
55. Sediment and erosion controls provided and working adequately?			
56. Special or hazardous waste handled in accordance with all regulations and policies?			
57. No evidence of gas migration?			
58. State regulatory agency required documents (permits, cover log, SDP, etc.) maintained?.			

EQUIPMENT

59. Site equipment adequate to perform work and back-up equipment available?			

REGULATORY INFORMATION	**Y**	**N**	**NA**
60. Is this facility on the National Priorities List?			
a. If yes, date of listing on the NPL:			
61. If facility on CER CLIS?	**Y**	**N**	**NA**
a. If yes, date of listing on CERCLIS: 1986			

COMMENTS:

ITEM # _____

NOTES:

1. Response box legend Y = YES
   N = NO (A negative response must be identified as an "A" unless a comment is made that demonstrates compliance]
   NA = Not Applicable
   A = Requires Attention
   SN = See Note - issue not currently on CARS, but future recurrence may cause issue to be listed on CARS
2. Shaded boxes indicate that an issue and appropriate corrective action must be entered into CARS.

APPENDIX A-4

Gas Monitoring Field Measurements

Chaffee Facility

Gas Monitoring Field Measurements

Field Representative: _____ Date: _____

Gas Meter Type: _____

Date Calibrated: _____

Pressure Gage Type: _____

Water Level Meter Type: _____

		Pressure	Methane	Water	Comments
Gas Probe	Time	(in. H20)	% (Vol.or LEL)	Level (ft.)	

Water level measurements are made from the top of PVC riser pipe.

WEATHER CONDITIONS: _____

COMMENTS: _____

_____

APPENDIX A-5

Daily Leachate/Groundwater Readings

Chaffee Landfill
Daily Leachate/Groundwater Readings

			LST 1	LST 2	Condensate Knockout Tank	Above Ground Storage Tank 1	Above Ground Storage Tank 2	Collection Sump[4] (pump volume)																							
								Cell 8[3]	Cell 8[3]	Cell 7[3]	Cell 7[3]	Cell 7/8 Overliner[3]	Cell 6	Cell 6	Cell 6	Cell 5	Cell 5	Cell 4	Cell 4	Cell 3	Cell 3	Cell 2	Cell 2	Cell 1	Cell 1	Cell 2 Overliner	Cell 1 Overliner	Existing Condensate Pump Station	Proposed[3] Condensate Pump Station	Sump 3/4 Manhole	Sump 5
Date:	Time:	Name:	(stick read)[1 & 2]	(stick read)[1 & 2]	(stick read)[1 & 2]	(liquid level)	(liquid level)	Primary	Secondary	Primary	Secondary	Secondary	Primary	Secondary	Groundwater	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Secondary	Secondary				
			LST 1	LST 2	Condensate Knockout Tank			Collection Sump[4] (pump volume)																							
								Cell 8[3]	Cell 8[3]	Cell 7[3]	Cell 7[3]	Cell 7/8 Overliner[3]	Cell 6	Cell 6	Cell 6	Cell 5	Cell 5	Cell 4	Cell 4	Cell 3	Cell 3	Cell 2	Cell 2	Cell 1	Cell 1	Cell 2 Overliner	Cell 1 Overliner	Existing Condensate Pump Station	Proposed[3] Condensate Pump Station	Sump 3/4 Manhole	Sump 5
Date:	Time:	Name:						Primary	Secondary	Primary	Secondary	Secondary	Primary	Secondary	Groundwater	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Secondary	Secondary				
			LST 1	LST 2	Condensate Knockout Tank			Collection Sump[4] (pump volume)																							
								Cell 8[3]	Cell 8[3]	Cell 7[3]	Cell 7[3]	Cell 7/8 Overliner[3]	Cell 6	Cell 6	Cell 6	Cell 5	Cell 5	Cell 4	Cell 4	Cell 3	Cell 3	Cell 2	Cell 2	Cell 1	Cell 1	Cell 2 Overliner	Cell 1 Overliner	Existing Condensate Pump Station	Proposed[3] Condensate Pump Station	Sump 3/4 Manhole	Sump 5
Date:	Time:	Name:						Primary	Secondary	Primary	Secondary	Secondary	Primary	Secondary	Groundwater	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Secondary	Secondary				
			LST 1	LST 2	Condensate Knockout Tank			Collection Sump[4] (pump volume)																							
								Cell 8[3]	Cell 8[3]	Cell 7[3]	Cell 7[3]	Cell 7/8 Overliner[3]	Cell 6	Cell 6	Cell 6	Cell 5	Cell 5	Cell 4	Cell 4	Cell 3	Cell 3	Cell 2	Cell 2	Cell 1	Cell 1	Cell 2 Overliner	Cell 1 Overliner	Existing Condensate Pump Station	Proposed[3] Condensate Pump Station	Sump 3/4 Manhole	Sump 5
Date:	Time:	Name:						Primary	Secondary	Primary	Secondary	Secondary	Primary	Secondary	Groundwater	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Secondary	Secondary				
			LST 1	LST 2	Condensate Knockout Tank			Collection Sump[4] (pump volume)																							
								Cell 8[3]	Cell 8[3]	Cell 7[3]	Cell 7[3]	Cell 7/8 Overliner[3]	Cell 6	Cell 6	Cell 6	Cell 5	Cell 5	Cell 4	Cell 4	Cell 3	Cell 3	Cell 2	Cell 2	Cell 1	Cell 1	Cell 2 Overliner	Cell 1 Overliner	Existing Condensate Pump Station	Proposed[3] Condensate Pump Station	Sump 3/4 Manhole	Sump 5
Date:	Time:	Name:						Primary	Secondary	Primary	Secondary	Secondary	Primary	Secondary	Groundwater	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Secondary	Secondary				

Notes 1: All measurements for LST 1, 2 and Condensate Knockout Tank are from top of tank riser pipe to leachate level.
2: Leachate measurements for LST 1, 2 and Condensate Knockout Tank can be corrected to gallons based on the tables provided in Appendices A1, A2 and A5.
3: Proposed Area 7/8 Development to be constructed
4: Record pump volumes

APPENDIX A-6

Weekly Leachate Inspection Schedule

Chaffee Landfill

Weekly Leachate Inspection Schedule

Inspector: _____

Date: _____

Leachate Collection System	Inspection Required	Monitoring Location	Inspection Type	Quantity of Liquid Removed	Notes
LCS 1 / LST 1	Side Slope Riser	Inspection Port	Water Meter		
	Inlet / Outlet Piping	Inspection Riser	Visual		
	Interstitial Tank Space	Inspection Sensor	Visual		
	Cathodic Protection	Inspection Terminal	Visual	NA	
LCS 2 / LST 2	Side Slope Riser	Inspection Port	Water Meter		
	Inlet / Outlet Piping	Inspection Riser	Visual		
	Interstitial Tank Space	Inspection Sensor	Visual		
	Cathodic Protection	Inspection Terminal	Visual	NA	
LCS 3/4 Manhole	Inlet Piping	Line J	Water Meter		
		Line K	Water Meter		
	Interstitial Manhole Space	Inspection Sensor	Visual		
LCS 5	Outlet Piping	Inspection Riser	Visual	NA	
Condensate Knockout Tank Western Landfill	Inlet / Outlet Piping	Inspection Riser	Visual		
	Interstitial Tank Space	Inspection Sensor	Visual		
	Cathodic Protection	Inspection Terminal	Visual	NA	
Condensate Knockout Tank Area 7/8 Development[1]	Inlet / Outlet Piping	Inspection Riser	Visual		
	Interstitial Tank Space	Inspection Sensor	Visual		
	Cathodic Protection	Inspection Terminal	Visual	NA	
Condensate Pump Station Western Landfill	Interstitial Manhole Space	Inspection Port	Water Meter		
Condensate Pump Station[3] Area 7/8 Development	Interstitial Manhole Space	Inspection Port	Water Meter		
Transmission Piping (From Sumps To Control Vaults)	Secondary Containment Ports	Inspection Port T 1	Water Meter		
		Inspection Port T 2	Water Meter		
		Inspection Port T 3	Water Meter		
		Inspection Port T 4	Water Meter		
		Inspection Port T 5	Water Meter		
		Inspection Port T 6	Water Meter		
		Inspection Port T 7	Water Meter		
		Inspection Port T 8	Water Meter		
		Inspection Port T 9	Water Meter		
		Inspection Port T 10	Water Meter		
		Inspection Port T 11	Water Meter		
		Inspection Port T 20	Water Meter		
		Inspection Port T 21	Water Meter		
		Inspection Ports TBD[2]	Water Meter		
Vault & Tank Piping (Vault,Tanks, Loadout Pad)	Secondary Containment Ports	Inspection Port V 1	Water Meter		
		Inspection Port V 2	Water Meter		
		Inspection Port V 3	Water Meter		
		Inspection Port V 4	Water Meter		
		Inspection Port V 5	Water Meter		
		Sump Sensor	Visual		
Above Ground Storage Tanks	Primary Tank	Electronic Level Indicator	Manual Level	NA	
	Secondary Containment Tank	Primary Tank Exterior Walls And Weeps	Visual		

Notes 1: Both of the above ground leachate storagre tanks are equipped with electronic level indicators which shall be checked weekly by comparing a manually taken level with that of the indicator.

2: Secondary Containment Inspection Ports for Area 7/8 Development To Be Determined (TBD) upon preparation of detailed construction drawings.

3: Proposed Area 7/8 Development to be constructed

APPENDIX A-7

Monthly Leachate/Groundwater Inspection Schedule

Chaffee Landfill
Monthly Leachate/Groundwater Inspection Schedule

Inspector: _____
Date: _____

Leachate Collection System	Inspection Required	Operational Yes	Operational No	Notes
LCS 1 / LST 1	Check Auto Dialer Function			
	High Level Sensor At Side Slope Riser			
	Sensor At Tank Containment Chamber			
	High Level Sensor In Tank			
LCS 2 / LST 2	Check Auto Dialer Function			
	High Level Sensor At Side Slope Riser			
	Sensor At Tank Containment Chamber			
	High Level Sensor In Tank			
LCS 3/4 Manhole	High Level Sensor In Manhole			
	Flow meter			
LCS 5	High Level Sensor In Sump			
	Flow meter			
Condensate Knockout Tank Western Landfill	Check Auto Dialer Function			
	Sensor At Tank Containment Chamber			
	High Level Sensor In Tank			
Condensate Knockout Tank Area 7/8 Development[1]	Check Auto Dialer Function			
	Sensor At Tank Containment Chamber			
	High Level Sensor In Tank			
Condensate Pump Station Western Landfill	High Level Sensor In Manhole			
	Flow meter			
Condensate Pump Station[1] Area 7/8 Development	High Level Sensor In Manhole			
	Flow meter			
Cell 8 Primary Collection[1]	High Level Sensor In Sump			
	Flow meter			
Cell 8 Secondary Collection[1]	High Level Sensor In Sump			
	Flow meter			
Cell 7 Primary Collection[1]	High Level Sensor In Sump			
	Flow meter			
Cell 7 Secondary Collection[1]	High Level Sensor In Sump			
	Flow meter			
Overliner Cell 7/8 Secondary Collection[1]	High Level Sensor In Sump			
	Flow meter			
Cell 6 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 6 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 6 Groundwater Collection	High Level Sensor In Sump			
	Flow meter			
Cell 5 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 5 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 4 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 4 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 3 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 3 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 2 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 2 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 1 Primary Collection	High Level Sensor In Sump			
	Flow meter			
Cell 1 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Overliner Cell 2 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Overliner Cell 1 Secondary Collection	High Level Sensor In Sump			
	Flow meter			
Above Ground Storage Tanks	Check Auto Dialer Function			
	High Level Sensor In Tank 1			
	High Level Sensor In Tank 2			
	Sensor In Control Vault			

Notes 1: Proposed Area 7/8 Development to be constructed

APPENDIX A-8

Semi Annual Leachate Inspection Schedule

Chaffee Landfill
Semi Annual Leachate Inspection Schedule

Leachate Collection System	Inspection Required	Test Results	Notes
LST 1	Cathodic Protection Test		
	Interstitial Space Test		
LST 2	Cathodic Protection Test		
	Interstitial Space Test		
LCS 3/4 Manhole	Interstitial Space Test		
Condensate Knockout Tank Western Landfill	Cathodic Protection Test		
	Interstitial Space Test		
Condensate Knockout Tank[1] Area 7/8 Development	Cathodic Protection Test		
	Interstitial Space Test		
Existing Generator	Manual Startup and Check of Electrical Connection		
Auxillary Power Plant Power	Manual Startup and Check of Electrical Connection		

Notes 1: Proposed Area 7/8 Development to be constructed

APPENDIX A-9

Annual Leachate Inspection Schedule

Chaffee Landfill
Annual Leachate Inspection Schedule

System	Inspection Required	Inspection Type	Notes
LST 1	Loadout Pad Concrete	Visual	
	Loadout Pad Sump (i.e. Grate , Pipe, Screen)	Visual	
LST 2	Loadout Pad Concrete	Visual	
	Loadout Pad Sump (i.e. Grate , Pipe, Screen)	Visual	
LCS 3/4 Manhole	Dump Port Valve Function	Visual	
Above Ground Storage Tanks and Control Vault	All Valve Functions	Visual	
	All Sensor Functions	Visual	
	All Alarm Functions	Visual	
	All Interior Piping	Visual	
	Concrete Surface	Visual	
	Sump Area	Visual	
Loadout Building Loadout Pad	Loadout Pad Concrete	Visual	
	Loadout Pad Sump (i.e. Grates and Concrete)	Visual	
Above Ground Storage Tank Secondary Containment	Containment Tank Concrete	Visual	
	Containment Sump (i.e. Grate and Concrete)	Visual	

APPENDIX A-10

Leachate System Alarm Log

Chaffee Landfill
Leachate System Alarm Log

Date	Time	Employee Responding	System	Alarm	Solution	Notes

APPENDIX A-11

Routine Leachate System Maintenance – Closed Landfill

Closed Chaffee Landfill
Routine Leachate System Maintenance

Inspector: _____
Date: _____

3. Leachate Loadout Pads and Sumps

Date	Time	LST Pad Designation	Cleaned (yes / no)	Sealed (yes / no)	LST Sump Designation	Cleaned (yes / no)	Sealed (yes / no)	LST Sump Drain	Length Cleaned[1]	Notes

Notes 1: Collection and Transfer pipe cleaning is required for each pipe every 6-months
2: A video log of each collection pipe is required to be made every fourth cleaning (every 2-years)

APPENDIX A-12

Routine Leachate System Maintenance – Western LF and Area 7/8 Development

Chaffee Western Landfill and Area 7/8 Development
Routine Leachate System Maintenance

Inspector: _____
Date: _____

3. Leachate Loadout Pad, Secondary Containment Tank and Control Vault

Date	Time	Leachate Loadout Pad		Secondary Containment Tank		Control Vault		Sump Drain Designation	Length Cleaned[1]	Notes
		Cleaned (yes / no)	Sealed (yes / no)	Cleaned (yes / no)	Sealed (yes / no)	Cleaned (yes / no)	Sealed (yes / no)			

Notes 1: Collection and Transfer pipe cleaning is required for each pipe every 6-months
2: A video log of each collection pipe is required to be made every fourth cleaning (every 2-years)

APPENDIX A-13

Daily Stormwater Pumping / Inspection Log

Chaffee Landfill
Daily Stormwater Pumping / Inspection Log

Stormwater Inspection Location	Gallons Pumped	Visual Observation	Notes
Unopened Cell Area			
Secondary Containment Tank			
Sediment Basin #5	NA		

APPENDIX A-14

Odor Tracking Form

APPENDIX A-14

Odor Tracking Form

Date: _____ Time: _____

Name _____ Phone #_____

Address_____

_____

_____

Location where Odor was encountered:_____

_____

_____

_____Time of Day:_____

Weather Conditions (temperature, precipitation, wind direction and speed):

_____

_____

_____

Investigation Results:_____

_____

_____

_____

Corrective Action: _____

_____

_____

APPENDIX A-15

Radiation Monitor Alarm Record

WMNY, LLC – Chaffee Landfill

Radiation Monitor Alarm Record

Facility must complete this if the radiation monitor alarm sounds.

Initial Alarm: Date:_____Time:_____

Hauler:_____Truck No._____Trailer No.:_____License Plate: _____

Driver:_____Waste Origin (Facility):_____Truck Body Type: _____

Material Hauled: _____ Special Waste Number if Applicable: _____

Part 364 Permit No. _____

Radiation Background Reading:_____kcps (thousand counts per second)

Radiation Monitor Reading:_____kcps

Scale-house Attendant Name: _____

Notes: _____

ACTIONS: If the radiation monitor's alarm sounds, perform the following steps:

1. Alert on-site management that alarm has been triggered. Record the radiation reading and the other information shown above.

2. Instruct the driver to pull off the scale and park the truck away from the detectors. Turn off the engine to avoid idling. Ensure the alarm has ceased & the monitor is reading normal background.

3. Have the driver walk near a detector to determine if he has received a recent nuclear medicine procedure. If the driver is the source, re-measure the truck alone by using an alternate driver or have the original driver park on the scale and walk away from the truck and detectors. If the truck alone does not set off the alarm, it may pass through. There is no restriction on a driver who has had a medical procedure.

4. If the truck is determined to be the source, notify facility Operations & Management

5. Management will check the type and origin of the load and scan the truck with a hand-held radiation detector to determine if it is an isolated spot or is diffuse throughout the load. Ensure that all information is recorded on this form.

6. Management shall notify NYSDEC immediately, if required and if the office is staffed, or at the earliest possible time that personnel are on duty. **NYSDEC Region 9 Solid Waste: (716) 851-7220 and NYSDEC Albany: (518) 402-5822**

7. Notify the Hauler's dispatch or representative.

8. The truck will remain parked until the situation is resolved, not to exceed 1 week.

Management Response: Responder:_____

Observations: _____

Event Resolution: Date:_____ Acknowledgement:_____NYSDEC Notified: _____

Description: _____

_____

_____

APPENDIX A-16

Radiation Detector Log Form

Chaffee LF Radiation Portal Detector Background and Weekly Test Log

Month:

	Background Reading		Weekly Known Source Reading	
Day:	**Detector 1 (kcps)**	**Detector 2 (kcps)**	**Detector 1 (kcps)**	**Detector 2 (kcps)**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Chaffee LF Radiation Hand-Held Detector Background and Weekly Test Log

Month:

	Background Reading (On Days when Hand-Held Unit Used)		Weekly Known Source Reading	
Day:	**Detector Unit # 1 (microrem/h)**	**Detector Unit # 2 (microrem/h)**	**Detector Unit # 1 (microrem/h)**	**Detector Unit # 2 (microrem/h)**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Note: Hand held detector is an "at use" source check if used for isotopic identification. If this is a dose rate meter the units should be corrected and source checks are on a daily basis.

APPENDIX B

EQUIPMENT LIST

Chaffee Equipment List

Facility Manual

(3) Landfill Compactors – Compact Incoming Waste

(2) Waste Handling Bulldozers – Process and Spread Incoming Waste

(1) Cover Bulldozer - Cover Placed and Compacted Waste

(2) Water Trucks – Control Dust and Fire Control

(3) Excavators – Load Cover Dirt, Truck Dig Outs & Solidification

(3) Articulated End-Dump Trucks – Solidification, Haul Cover Dirt & Site Maintenance

(1) Wheel Loader – Road & Site Maintenance

(1) Skid Steer – Site Maintenance

(1) Motor Grader – Road Maintenance and Snow Removal

(1) Fuel Truck – Transport Fuel & Load

(7) Pick Up Trucks – Personnel Transportation

(2) Large Volume Water Pump – Load Water Truck & Stormwater Management

(1) Smooth Drum Roller – Site & Landfill Maintenance

(1) Air Compressor – Equipment Maintenance

(1) Snowplow Truck – Winter Road Maintenance

APPENDIX C

LEACHATE DISPOSAL AREEMENTS

Permit No.: 19-07-TR263

EPA Categorical 40CFR403
Expiration Date: June 30, 2020
Date Paid: June 10, 2019

BUFFALO SEWER AUTHORITY
TRUCKER'S DISCHARGE PERMIT

PERMITTEE: M & T Trucking

LOCATION ADDRESS: 532 Peoria Rd., Pavilion, New York 14525

The above-named Permittee is hereby approved to discharge **landfill leachate** only, from:

Waste Management / Chaffee Landfill, Inc.
10860 Olean Rd., Chaffee, New York 14030

to the Buffalo Sewer Authority facilities in accordance with the Buffalo Sewer Authority Regulations, Article VI, Section 14, and subject to the following conditions:

ARTICLE 1 REGISTRATION

The Permittee hereby certifies that he is registered with the New York State Department of Environmental Conservation as a waste transporter holding Permit Number **9A-662.**

ARTICLE 2 CONDITIONS OF ACCEPTANCE

The discharge of the approved waste by the Permittee shall be subject to the following conditions:

a. Times and Locations

The following location(s) is/are designated for discharge during the hours listed and subject to the limit for rate of discharge specified:

Location	Time Discharge is Permitted	Limit On Rate of Discharge
Treatment Plant Settled Wastewater location only.	8:00 AM to 3:15 PM MONDAY THRU FRIDAY (except holidays)	Fourteen (14) 5500 gallon loads per day.

b. Pollutant Discharge Limitations

The permitted waste stream is required to meet all pollutant limitations as specified below:

Pollutant	**Maximum Discharge Limit Per Load**
pH	5.0 – 12.0 S.U.
Total Extractable Hydrocarbons	100 mg/L.
Total Arsenic	0.083 lbs.
Total Chromium	0.229 lbs.
Total Copper	0.734 lbs.
Total Nickel	0.642 lbs.
Total Zinc	1.147 lbs.
Total Phenol	0.367 lbs
Lead	0.229 lbs.
Mercury	50 ng/L
Silver	0.101 lbs.
Selenium	0.046 lbs.
Barium	4.587 lbs.
EPA Test 608	Limits as stated in
EPA Test 624	Guidance for BSA
EPA Test 625	Pollutant Limits.

c. Local Limits

Except as otherwise specified in this permit, the permit holder shall comply with all specific prohibitions, limits on pollutants or pollutant parameters set forth in the Buffalo Sewer Authority Sewer Use Regulations, as amended from time to time, and such prohibitions, limits and parameters shall be deemed pretreatment standards for purposes for the Clean Water Act.

d. Operations

The Permittee shall maintain cleanliness, minimize odors and protect the Buffalo Sewer Authority facilities during the Permittee's operations. The Permittee shall not permit any condition to arise which may pose a threat to public health, safety or welfare.

e. Instructions

Prior to discharge, the Permittee will identify in writing and submit to the Industrial Waste Section (IW) office; the source, the characteristics and the amount of liquid wastes being discharged. Also, the Permittee must sign the log book provided at the IW Section Office.

f. Samples and Analyses

The Buffalo Sewer Authority may from time to time, require the Permittee to sample and analyze its waste discharges. Such sampling and analyses shall be performed and results submitted by a New York State Dept. of Health certified laboratory. The analyses required shall be as specified by the Buffalo Sewer Authority, which also reserves the right, at its convenience, to sample wastes discharged by the Permittee.

g. Refusal to Discharge

The Buffalo Sewer Authority may refuse the Permittee permission to discharge wastes anytime and for any reason whatsoever, for the protection of sewer facilities against damage or flooding; to assure the proper operation and maintenance of said facilities; or to protect public health, safety or welfare; or cause the sewerage system to contravene any Federal, State or Buffalo Sewer Authority limits.

ARTICLE 3 REGULATIONS

The Permittee must conform to all Buffalo Sewer Authority regulations and appropriate Federal, State and County Statutes, rules, mandates, directives, and orders concerning the collection, transportation, treatment and disposal of waste waters.

ARTICLE 4 FEES & PAYMENT

a. Annual Fee

The Permittee will pay to the Buffalo Sewer Authority an annual fee of **$ 120.00** as stated in the latest edition of the "Schedule of Sewer Rents and Other Charges."

b. Charge per Load

Waste Management shall pay **$ 0.040** per gallon.

c. **Waste Testing and Monitoring Fee**

The Permitee shall pay the Buffalo Sewer Authority for the actual cost the Buffalo Sewer Authority incurs to conduct at least two tests each year of the strength, volume or other characteristics of the waste being discharged. The Buffalo Sewer Authority reserves the right to charge for additional monitoring or tests, as it may determine appropriate.

ARTICLE 5 TERM OF AGREEMENT & RENEWAL

This permit shall be in effect for a period of one (1) year. Within sixty (60) days of termination of this permit all information required for renewal must be submitted to the Industrial Waste Section for review and approval.

ARTICLE 6 INSURANCE AND INDEMNIFICATION

The Permittee shall provide certification of insurance to the Buffalo Sewer Authority in a form approved by the Industrial Waste Section, said insurance shall have at least the following minimum requirements:

Type	Limits	
	Each Occurrence	Aggregate
General Liability		
Bodily Injury	$500,000	$1,000,000
Property Damage	$100,000	$500,000
Automobile Liability		
Bodily Injury	$500,000	$1,000,000
Property Damage	$100,000	$500,000
Excess Umbrella Liability	$1,000,000	
Workmen's Compensation	Statutory	
New York State Disability	Statutory	

The Permittee, (named insured) agrees to indemnify and hold harmless the Buffalo Sewer Authority and its agents and employees against any and all claims resulting from work performed under this permit. The Permittee shall be solely responsible for any and all injury or damage to its employees or property arising from use of Buffalo Sewer Authority facilities under this permit.

In the event of any alteration, non-renewal or cancellation of these policies, at least (45) forty-five days advance notice shall be given to the Industrial Waste Section, Bird Island Treatment Plant, 90 West Ferry Street, Buffalo, New York 14213 - before such change shall be effective.

ARTICLE 7 TERMINATION FOR VIOLATION OF AGREEMENT

In the event of a violation of any of the terms and conditions of this permit by the Permittee or upon the failure to pay the charges herein specified, the Buffalo Sewer Authority shall terminate the permit by service of notice of termination by registered mail at the Permittee's office address as set forth above.

ARTICLE 8 PERMITTEE APPLICATION & ACKNOWLEDGMENT

Official: Tracie A Cole Title: V. President
Print Name Print Title

Signature: Tracie A. Cole 6-12 ,20 19

ARTICLE 9 BUFFALO SEWER AUTHORITY APPROVAL

Approved as to Content:

Signature: [illegible] 6/12 ,20 19
Industrial Waste Administrator

ARTICLE 10 BUFFALO SEWER AUTHORITY ACKNOWLEDGMENT

General Manager
Buffalo Sewer Authority

Signed this 14th day of June , 20 19

APPLICATION FOR STEUBEN COUNTY SOLID WASTE HAULING PERMIT

(Official Use)

Permit #C 928

Date Issued: JUL 11 2019

____ **New Permit**

____ **Renewal of Permit**

____ **Other**

Name of Business: Waste Management

Address: 10860 Olean Rd. **City:** Chaffee **State:** NY **Zipcode:** 14030

Telephone: 716-496-3017 **Fax:** 716-496-7325

E-mail Address: cchapman@wm.com

List below all vehicles subject to the application:

Year & Make	Model	License Number	(Office Use) Vehicle #
M & T Trucking			

NOTIFY THIS OFFICE OF ANY CHANGES IN LICENSES AND VEHICLES.

AGREEMENT – SOLID WASTE BILLING SYSTEM

The undersigned acknowledges that:

a) They are permitted to haul refuse to the Steuben County Solid Waste Facilities.

b) They are familiar with all the rules and regulations set forth in Local Law No. 3 of the year 1979, the Resolution adopted by the Steuben County Board of Supervisors on 11/15/82, titled: "Establishing a Landfill User Fee" and the Resolution adopted 12/27/82, titled: "Clarification and adjustment of the User Fee Schedule and Local Law #1 of the year 1989", and I, (We) fully and freely agree to comply with and be bound by the provisions.

c) They understand that a security deposit is required in order to be placed on the billing system. Said deposit shall be paid by cash, check, money order, or unused landfill tickets with any over payments being placed on account. Deposit to remain with county until used to meet unpaid invoices or until termination of this credit agreement.

d) They are liable for and will pay appropriate charges for refuse delivered to the Steuben County Solid Waste Facilities. If bill is not paid by the designated due date, Solid Waste Facility usage may be refused until such time this financial obligation is met.

e) "Permittee agrees to pay all costs, expenses, and fees, including reasonable attorneys' fees, which may be incurred in the collection of any amount due in respect of the exercise of the privileges granted by this Permit, whether the same shall be enforced by suit or otherwise."

To be placed on the Solid Waste Billing System, a security deposit of five hundred dollars and 00/100 ($500.00) is required.

Security Deposit was paid in the form of: check #1416096 cash_____ money order_____ landfill tickets_____

I, (we) the undersigned are familiar with the Rules & Regulations of the Commissioner of Public Works as to Solid Waste Management and Local Law #1 of the County of Steuben.

Operations Manager
(Signature/Title)

6.27.19
(Date)

Christopher Chapman
(Print Name of Person Signing)

This permit is not transferable without prior written authorization by the Commissioner of Public Works. Once signed by the County, original will be kept by the County and a copy will be sent to applicant as an approved permit. This will be kept in our files.

A Permit #C 928 has been issued to the above company.

(Commissioner of Public Works or Authorized Representative)

JUL 11 2019
(Date)

JAMESTOWN bpu BOARD OF PUBLIC UTILITIES

PO Box 700
Jamestown, NY 14702-0700
Phone (716) 661-1653
Fax (716) 665-2785

ELECTRIC
DISTRICT HEAT
WATER
WASTEWATER
SOLID WASTE

January 17, 2018

Jonathan Rizzo
Permitting Manager
Waste Management
10860 Olean Road
Chaffee, NY 14030

The Jamestown Board of Public Utilities will accept leachate generated at your facility. We would accept up to a maximum of 30,000 gallons per day. You will be billed at a rate of $ 0.0200 per gallon, or $20.00 per 1,000 gallons. Please call prior to delivery (716) 661-1653 and check with me on our plant's capacity.

We have limited our hours for deliveries from 7:00 AM to 6:00 PM, Monday through Friday, and 7:00 AM to Noon on Saturday.

Please provide a copy of your waste haulers permit for my files.

Should you have any questions, please do not hesitate to contact this office.

Sincerely,

Keith Vanstrom
Chief Operator
Jamestown WWTP

APPENDIX D

EMERGENCY RESPONSE CONTACTS

AGENCY / ORGANIZATION	EMERGENCY NUMBER
Fire	
Chaffee Fire Department	911
Police	
State Police	911
Erie County Sheriff (Sub Station Colden Town Hall)	(716) 941-3368
Medical	
Ambulance	
Chaffee Fire Department	911
Hospital	
Bertrand Chaffee Hospital	(716) 592-2871
Poison Control Center	
Upstate Poison Center	1-800-222-1222
State Emergency Response Contacts	
New York State Department of Environmental Conservation	
Division of Solid and Hazardous Materials Waste – Region 9	(716) 851-7220
Division of Air – Region 9	(716) 851-7130
Spill Hotline	1-800-457-7362
New York State Department of Health	
Buffalo Region (Erie County)	(716) 858-7690
New York State Department of Transportation – Region 5	
Buffalo	(716) 847-3238
Federal Emergency Response Centers	
Environmental Protection Agency – Region II	
Clean Air & Sustainability Division	(212) 637-3736
Waste Management Division	(212) 637-4232
Emergency and Remedial Response	(212) 637-4338

FACILITY INFORMATION TO BE REPORTED

Chaffee Landfill.
10860 Olean Road
Chaffee, New York 14030
(716) 496-5000

OCCURRENCE INFORMATION TO BE REPORTED

- Type of occurrence
- Time of incident occurrence
- Name and quantity of material(s) involved, to the extent known
- Extent of any injuries
- Possible hazards to health, safety, and/or the environment surrounding the facility
- Person taking report
- Telephone number (your present location)

Town of Sardinia

Town Hall	(716) 496-8900
Department of Public Works	(716) 496-7526

Miscellaneous Contacts

Electrical Repairs – Dubay Electric Inc.	(716) 492-2200 (716) 560-5636
Telephone Company - Verizon	(800) 837-4966
Mechanical and Pump Repairs – Dubay Electric Inc.	(716) 492-2200 (716) 560-5636
Scale Repairs – Precision Scale & Balance	(716) 759-4866
Emergency Tanker Service – M&T Trucking	(585) 584-3763
New York State Electric and Gas	(800) 572-1131
National Fuel Gas	(800) 444-3130