
Dickson Environmental Services

Facility Manual

Dickson Environmental Services Compost
5226 Bonny Hill Road
Bath, New York 14810

Prepared For

Dickson Environmental Services

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5226 Bonny Hill Road
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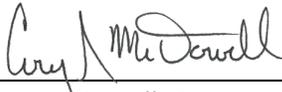
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Certification Statement

The material and data in this report were prepared under the supervision and direction of the undersigned. Barton & Loguidice, D.P.C. certifies to the best of our knowledge and belief that the information provided herein is accurate and is in accordance with sound engineering practice.

Barton & Loguidice, D.P.C.



Cory J. McDowell, P.E.

Associate

NYSPE License No. 083501

1.0 Introduction

This Facility Manual is submitted on behalf of Dickson Environmental Services to the New York State Department of Environmental Conservation (NYSDEC) in support of a 6 NYCRR Part 360 permit renewal application for the Dickson Environmental Services Compost Facility (Permit #8-4666-00022/00001). Dickson Environmental Services is responsible for the operation of the Compost Facility located at 5226 Bonny Hill Road, Bath, New York 14810. This Facility Manual has been developed in accordance with the requirements set forth in 6 NYCRR Parts 360.16(c)(4) (Facility Manual), 360.19 (Operating Requirements) and 361-3 (Composting and other Organics Recycling Facility). Dickson Environmental Compost Facility composts other materials alongside the food processing waste and biosolids, but in accordance with 361-3.2(a)(7) the other materials are considered exempt and, therefore, not covered in this facility manual.

This Facility Manual has been adapted from the original Operation and Maintenance Manual prepared by Transform Compost Systems Ltd., to meet current 6 NYCRR Part 360 series regulations. This Facility Manual replaces all other previous O&M Manuals for the site. All previously approved modifications to the facility and other pertinent facts for the site are included in the body of this report.

2.0 Waste Control Plan

In accordance with 6 NYCRR Part 360.16(c)(4)(i), the following discussion details the facility's waste control plan. Access to the facility is monitored by facility personnel during operational hours. The following sections detail the facility's service area, waste acceptance requirements, waste destination, unauthorized waste, and material management.

2.1 Facility Service Area

The compost facility serves wastewater treatment plants, food waste processors and farms in and surrounding Steuben County. Biosolids generated from the following sources are permitted to be accepted for composting at Dickson Environmental Compost Facility:

Addison, NY, Village of:	WWTP
Alfred, NY, Village of:	WWTP
Avon, NY, Village of:	WWTP
Bath, NY, Village of:	WWTP
Canisteo, NY, Village of:	WWTP
Castile, NY, Village of:	WWTP
Catherine Valley Water Reclamation Facility:	WWTP
Cayuga Heights, NY, Village of:	WWTP
Conesus Lake, NY, County Sewer District:	WWTP
Dansville, NY, Village of:	WWTP
Dryden, NY, Village of:	WWTP
Dundee, NY, Village of:	WWTP
Elkland, PA, Borough of:	WWTP
Groton, NY, Village of:	WWTP
Hornell, NY, City of:	WWTP
Knoxville, PA, Borough of:	WWTP
Lawrence, PA, Borough of:	WWTP
Montour Falls, NY, Village of:	WWTP
Nelson, PA, Township:	WWTP
Nunda, NY, Village of:	WWTP
Perry, NY, Village of:	WWTP
Portville, NY, Village of:	WWTP
Sabinsville, PA, Village of:	WWTP
Trumansburg, NY, Village of:	WWTP
Owego, NY, Town of:	WWTP
Warsaw, NY, Village of:	WWTP
Watkins Glen, NY, Village of:	WWTP
Waverly, NY, Village of:	WWTP
Wayland, NY, Village of:	WWTP
Westfield, PA, Borough of:	WWTP
Whitney Point, NY, Town of:	WWTP

Food processing waste generated from the following sources are permitted to be accepted for composting at Dickson Environmental Compost Facility:

Dietrichs Foods (Dairy Farmers of America), Middlebury Center, PA
Kraft Foods, Avon, NY
Kraft Foods, Lowville, NY
LePrino Foods, Waverly, PA
Quest – Kerry Bio Science, Norwich, NY
Upstate (formerly Kraft Foods), Campbell, NY
Independent Haulers (raw milk loads rejected by Kraft in Campbell)

2.2 Waste Acceptance

Material is accepted only during normal waste receiving hours when facility operators are on duty. The facility is normally open for waste acceptance from 7:00 a.m. to 7:00 p.m. on Monday through Friday and 7:00 a.m. to 12 p.m. on Saturdays and closed on Sundays.

All traffic coming onto the site will be entering through the main gate. All traffic coming onto the site will be in view of the composting area. All material coming from the receiving area will be monitored by a site operator. In addition, the site operator ensures materials are placed in the proper locations. All gates will be closed and locked at night, Sunday, and holidays.

A maximum of 22,000 tons per year of incoming material is accepted for composting. This includes the organic feedstocks, sawdust and other wood products added to the process as a bulking agent. Three different categories of organic feedstocks are accepted – biosolids, food processing waste, and manure; only the biosolids and food processing wastes, totaling approximately 11 wet tons per day and 4.4 wet tons per day on average, respectively, are regulated under this permit.

2.3 Waste Destination

All compost is used on-site on designated farm land belonging to Dickson Environmental Services.

2.4 Unauthorized Waste

Only materials which this facility is permitted to handle are accepted. Biosolids and food processing wastes are the only regulated material composted at this facility. The facility will accept no more than an annual average of 11 wet tons per day of biosolids and 4.4 tons per day of food processing wastes from the facilities listed in Section 2.1 and the permit. All facility staff are trained to identify unacceptable materials brought to the facility and loads not permitted for handling are rejected and turned away. Staff are instructed to report any identified unacceptable material to the supervisor on duty.

If a transport vehicle containing any material deemed unacceptable arrives at the site, the vehicle will be denied access to the facility, and a record of such vehicles will be maintained. If unacceptable material is tipped in the compost facility, unauthorized waste will be reloaded onto the original vehicle for transfer to an appropriate disposal facility. The transporter and/or generator will be responsible for the immediate removal of unacceptable waste to the appropriate regulated waste disposal facility.

In the event that unauthorized waste from an unknown source is encountered, the waste will be isolated in a secure area within the receiving area until such time that it can be properly disposed of at a permitted facility. If the waste encountered appears to be hazardous, appropriate regulatory officials will be notified and an attempt made to identify the type of waste such that proper removal and disposal may occur.

All incidents of receipt of unauthorized material will be recorded with the date, time, description, actions taken, etc. for inclusion in the subsequent annual report to the Department.

3.0 Operations and Maintenance Plan

The following sections outline the general operations and maintenance activities associated with the Dickson Environmental Services Compost Facility in accordance with Part 360.16(c)(4)(ii). The following sections describe the overall operations at the site, on-site equipment in use, process flow for materials received, methods for controlling leachate and odors, applicable maintenance and inspection actions, actions to be taken during interruption of normal operations, and anticipated traffic volumes and patterns. Additional operating requirements for compliance with Part 361-3 are also included.

3.1 Facility Operation

Material is accepted only during normal waste receiving hours when facility operators are on duty. Waste is accepted from 7:00 a.m. to 7:00 p.m. on Monday through Friday and 7:00 a.m. to 12 p.m. on Saturdays. The facility is closed for receiving waste on Sunday and on holidays. Attendants are on duty during all hours of operation. The Compost Facility Supervisor is available during normal business hours and whenever other employees are working.

Materials are hauled to site by Dickson Environmental Services employees. Haulers access the facility via Bonny Hill Road. Loads with solid waste material will be directed to the scales and record the incoming weight in tons. Any liquid wastes received will be quantified and recorded by the volume of the tanker. Records of incoming and outgoing tonnages will be used to develop the compost facility's annual report. If any evidence of unauthorized material is detected, facility personnel will follow the procedure in Section 2.4 of the site's Waste Control Plan.

All incoming waste will be directed to the appropriate receiving areas at the composting facility. All biosolids, and other potentially odorous organic waste will be immediately placed inside covered storage bunkers outside of the composting facility. Any organic material remaining in the receiving area will be cleaned up and processed through the vertical auger mixer and placed in the aerated concrete channels before new materials are received.

The biosolids are blended with sawdust and other organic waste within 48 hours of receipt using a vertical auger mixer before being placed in the composting channels. An electrically powered compost turner rides on top of the walls and mixes and moves the material down the channel. The compost turner is moved from one channel to the next using a powered transfer carriage at the output end of the channels. The residence time in the aerated channel is 28 days.

The temperature of the aerated composting channels will be checked by the compost facility operator to ensure that the process is working properly. Finished compost will be removed from the back of the channels as per operational requirements for the day.

Every effort will be made to process and charge the channels with the waste received during the day after it has been mixed with bulking agents. Ideally, no highly odorous wastes will remain in the storage bunkers at the end of the day, thereby, minimizing the potential for odors to be released from the receiving area.

The compost facility operator will ensure that all composting channels, aeration equipment, and odor control system equipment is working properly before closing the facility for the day. The gates will be closed and the buildings secured prior to staff leaving the facility.

3.2 Storage and Processing Areas

The receiving bunkers area is located adjacent to the compost building. This area is where the raw organic waste is received and stored before blending and placement in the compost channels.

There are separate bunkers to allow storage of each of the various organic wastes being received. Since each of these materials have very different characteristics, segregation ensures that the proper mixes can be prepared. Biosolids will be kept segregated from manure and food processing wastes.

The receiving bunker is in close proximity to the mixer to minimize travel requirements for the loading equipment.

In addition, in the mixing area, there is a smaller area for storing ground wood waste and oversized pieces of compost from screening that are recycled for use as a bulking agent.

The finished compost is screened before being cured on the curing pad.

3.3 Process Flow

The input mix into the compost consists of the various organic wastes received onsite and a bulking agent. Sawdust and other wood waste is used for bulking agent and is received adjacent to the compost building. The organic wastes are delivered and immediately placed in the storage bunkers located adjacent to the compost building. The organic wastes are blended with sawdust and other bulking agent material in a vertical auger mixer within 24-48 hours of receiving. The blend of organic waste and sawdust will be mixed to create a product having 60-65% moisture content and a bulk density of 1,000 to 1,150 lb. per cubic yard.

From the receiving areas, waste is moved to the mixing equipment. The retention time in the mixer is approximately 2 minutes, depending on the nature of the material being composted. The capacity for mixing is up to 50 tons per hour. The mixer is located in the receiving area and will be loaded using the appropriate mobile equipment. A conveyor will be used to transfer the blended material from the mixer to a temporary storage location near the feed end of the concrete channels. Material will be transferred from the temporary storage location to the channels using a loader.

After mixing, the composting process begins by placing the material within the concrete bunker. A compost turner riding on top of the concrete walls turns the compost within the channel and advances the material approximately nine feet along the channel with each pass. The retention time within the aerated channels is 28 days with the turner operating seven days per week. The capacity for turning the compost is up to 500 cubic yards per hour.

The screener is fed by a 10 cubic yard hopper with a capacity of 50 cubic yards per hour. The material is loaded in the screener and the final composted material is removed from underneath the screen deck using a loader. Oversized material is returned to the beginning of the composting process for the use as a bulking agent for inoculation.

3.3.1 Composting Stages

There are two distinct stages of the composting process. The first is the active composting for 28 days in the aerated concrete channel. The second state is the active curing outdoors.

The requirement for the first stage of composting is to meet pathogen kill requirements and stabilize the material by composting the readily available carbon. The temperature requirements for pathogen kill include 3 days at a minimum of 135 degrees Fahrenheit. It is expected that the material will be at a temperature of 135 degrees Fahrenheit for a minimum of 21 days. The following 7 to 11 days of the composting process will allow the compost to cool off. The period of time that the composting material is in the first or active composting stage is determined by the number of times the turner passes through the channel. The system was designed for 28 days and maximum of 32 days.

In order to verify that the compost has met the required temperature and time criteria, a tracking plan has been implemented. The tracking plan has been developed to monitor and document the movement and temperature of material through the compost channel over time in order to verify that each pile has met the pathogen and vector reduction criteria. Each pile entering the channel will be approximately nine feet (length) by twenty feet (width) and five feet (height), therefore, the channel has been broken down into twenty-seven compost cells. The Compost Cells have been designated D1 through D27. A discrete number will be assigned to each pile of mixtures that is placed into the channel. These discrete numbers for each pile will be used to track the location and temperature reading of each pile.

If for some reason, temperatures required for pathogen kill are not achieved in the active composting process, the material will be blended with other materials and reprocessed in the aerated concrete channels.

The composting material is mixed and moved 9 feet down the aerated channel seven times per week. The purpose of mixing is to ensure that all of the composting material meets the temperature requirements for pathogen kill, to eliminate preferential air pathways that develop in the compost, and to move the product through the channel.

The curing material in the bunkers will be monitored for compost maturity using the Solvita compost maturity index. The index is internationally recognized as a standard for determining compost stability by measuring CO₂ emission from a small amount of compost.

The cured material will be ready for use when it has reached “mature compost” status according to the Solvita test. The Solvita Compost Maturity uses both carbon dioxide and ammonia probes to simultaneously test compost. This dual procedure enables more accurate pinpointing of maturity which depends on both carbon and nitrogen stabilization. Any product not meeting this standard will be further cured.

Table 3-1 depicts the process flow diagram for the biosolids waste composting operation.

Table 3- 1: Biosolids Composting Mass Balance

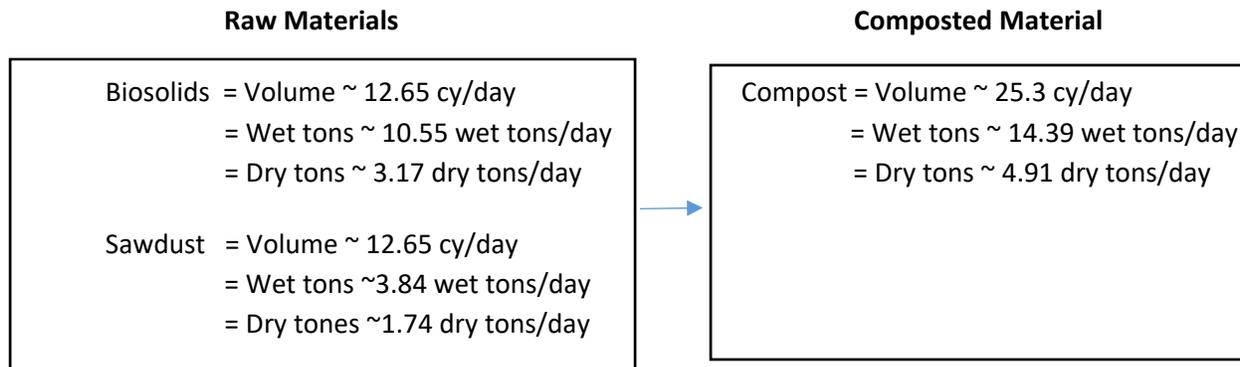
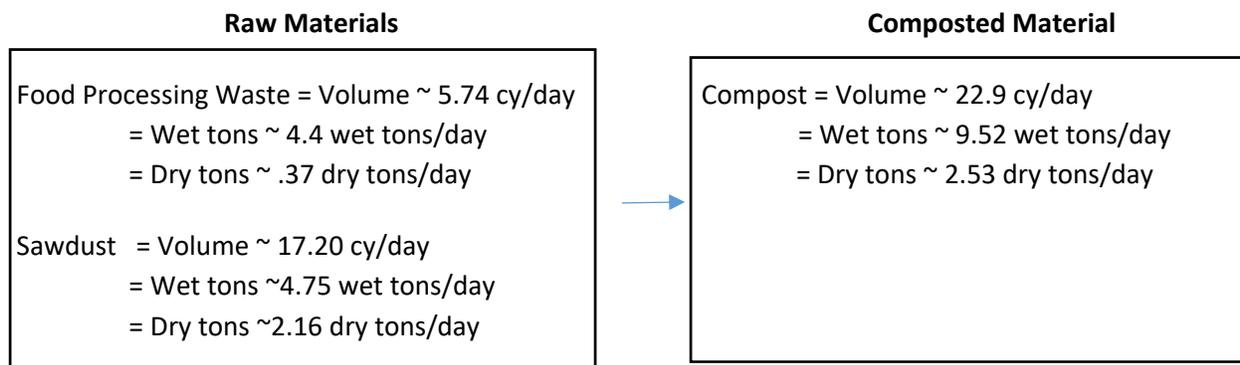


Table 3-2 depicts the process flow diagram for the food processing waste composting operation.

Table 3- 2: Food Processing Waste Composting Mass Balance



3.4 Equipment

Adequate equipment will be maintained at the facility at all times for proper functioning of the compost facility operations. Equipment used at the facility includes a Stationary EnviroProcessor 500, RotoKing MV2020, Superscreen VE500, scale, skid-steer, loader, and maintenance vehicles.

The Stationary EnviroProcessor 500 is used to mix all incoming biosolids with bulking agents such as sawdust. The RotoKing MV5020 compost turner rides along the compost bays driving

hydrostatically using pump driven by an electric motor. Lastly, the Superscreen VE500 stationary screening system ensures the quality of the compost. Equipment design capacities are as discussed in Section 3.3.

All equipment will be maintained in good working order, and the facility will be operated in accordance with the terms of the permit.

3.4.1 Aeration System

The aeration system for this composting facility consists of aeration pipes embedded in the concrete floor of each of the channels. There are four separate aeration zones along the length of the channels to allow the aeration rate to change through the composting process. One aeration zone consists of one centrifugal blower capable of 400 CFM at a pressure of 5 inches of water column blowing fresh air through a 6" header into nine 2" laterals.

The aeration system is controlled by a timer for each blower. The aeration rate for the blowers is controlled initially with a timer system that operates the aeration blower at prescribed intervals, 2 minutes on and 30 minutes off. The timer interval is established during startup by measuring oxygen concentrations in the composting material.

3.5 Site Drainage

Facility features and operational procedures are designed to prevent the introduction of material into the surface or ground waters of the State. Mixing and active composting occur under cover or within the compost building, therefore, no stormwater requiring management will be introduced during these stages. Any leachate produced in the aerated composting channels will be collected and directed to the outdoor liquid retention ponds.

3.6 Monitoring, Maintenance, and Inspection Procedures

All processing activities take place within an enclosed building, isolated from the ground surface by a concrete slab. The concrete in the building will be maintained so as to minimize cracking. As a result, there is no need for routine monitoring of groundwater or soil at the facility.

The aerated concrete channels will be continually monitored daily for temperature and periodically for oxygen. There are four aerated concrete channels, with four aerated zones along the length of each channel. Two temperature measurements will be taken from each aeration zone using 3 ft. long temperature probes inserted at a 45 degree angle from the side of the channel.

Oxygen concentrations within the composting windrows will be monitored periodically to ensure adequate oxygen concentration for composting.

Temperatures will be monitored weekly in the curing piles.

3.7 Interruptions in Operations

In the event that a mechanical problem, fire, or other unforeseen circumstance requires an unscheduled shutdown, incoming biosolids that are unable to be composted will be land-applied on the farm fields permitted for land application activities, as part of the separately permitted land application activity. On-site Emergency coordinators will organize personnel to secure the material and shutdown all equipment, unless dangerous conditions prohibit such action, and will advise emergency responders, as appropriate. Recommended spare parts for the equipment will be kept available to facilitate repairs and bring the facility back on line in the event of mechanical difficulties. The Emergency Response Plan, included as Section 5.0, outlines the appropriate procedures to be followed during unscheduled shutdowns caused by fire or other non-equipment related emergency.

3.8 Equipment Maintenance Procedures

Breakdowns or machinery malfunctions will be reported immediately to the Compost Facility Supervisor and they will formulate an appropriate course of repair or replacement.

Typically, all routine maintenance of on-site machinery and equipment is performed during non-receiving hours. Routine maintenance will include items such as oil changes, minor equipment repairs, and general cleaning.

On-site machinery is maintained routinely and on a schedule not less than the manufacturer's suggested frequency rate for each machine. All safety guards and controls will be maintained in proper working order at all times and no machine will be operated if the safety guards and controls are disabled or nonfunctional.

Machine operators are required to report any occurrence of safety guard or control malfunction to the Compost Facility Supervisor. The Compost Facility Supervisor will attempt to ascertain the nature of the equipment failure and arrange for the timely repair or replacement of all nonfunctional safety equipment.

3.9 Equipment Calibration and Schedule

Equipment calibration and maintenance will follow the procedures and schedule as recommended by the manufacturers.

3.10 Traffic

The daily traffic flow to the facility will be less than 20 vehicles per day. The individual vehicle loads vary between 8 and 30 cubic yards, depending on the vehicle capacity.

The site access roads have been planned to accommodate expected traffic flow in a safe and efficient manner. The facility has been accepting the same quantity of biosolids for land application for several years with no traffic or queueing issues.

3.11 Part 361-3.2 Operating Requirements (Composting Facilities)

This section covers the design and operating requirements included in 6 NYCRR Part 361-3.2 that are not covered in previous sections.

3.11.1 Minimum Horizontal Separation

In accordance with Part 361-3.2(e)(11) the minimum horizontal separation distance from the compost facility to the nearest residence, place of business or public contact is 500 feet. Due to the rural location of Dickson Environmental Services, the facility is well beyond the 500 feet minimum distance.

3.11.2 Unacceptable Materials and Noncompostable Waste

Any waste that is not from an approved wastewater treatment plant shall not be delivered onsite. Waste that does not positively contribute to the composting process will not be accepted for composting.

Compost that does not meet specification for marketing during normal composting, curing and separation process will be assessed to determine the next course of action. If the compost does not meet the specification for maturity, it will be further cured and stored until it meets the quality specifications.

All batches of composting material that do not meet the specification will be recorded along with the action required to bring the material into compliance with the specifications listed in Table 3-5.

If the process consistently does not meet specifications, the operating protocol will be changed to allow the product to meet the desired quality standards.

If the waste ultimately does not compost, the facility will transport the waste to a registered or permitted solid waste management facility on a weekly basis.

3.11.3 Odor Control

All activities that have the potential to produce odors, such as mixing and turning the compost, are performed indoors to control off-site odor nuisances. The building is designed with negative pressure to prevent odors from escaping the building. It includes a ventilation that generates negative pressure to allow air to flow into the building but not out of the building, as air will naturally flow from areas with higher pressure to areas with lower pressure, thereby preventing odorous air from escaping the building. Therefore, noticeable odors should be negligible due to the negatively ventilated building and the relative distance of the facility from neighbors.

3.11.4 Pathogen and Vector Attraction Reduction

The pathogen reduction requirements for an in-vessel system is a minimum of 3 days at a minimum of 135° Fahrenheit. The duration of the active composting process in the

facility is 28 days. Turning the compost seven times per week will ensure that all the composting material will meet the pathogen kill requirements.

The risk of vectors at this compost facility is low; the active composting process is inside a building and involves regular turning and high temperatures. Vectors are not able to live and breed in the material. The raw organic material received in the facility will be processed within 24-48 hours, which is not long enough to attract vectors.

3.11.5 Material Quality and Analyses

A sample from each biosolid source must be analyzed each year in accordance with the following

1. The required parameters for analysis are found in Table 1 of Section 361-3.9, which is recreated below:

Table 3- 3: Parameters For Analysis

Total Kjeldahl Nitrogen	Total Potassium	Arsenic	Lead	Selenium
Nitrate	pH	Cadmium	Mercury	Zinc
Ammonia	Total Solids	Chromium	Molybdenum	Fecal Coliform
Total Phosphorous	Total Volatile Solids	Copper	Nickel	Salmonella sp. bacteria

2. The minimum number of analyses required depends on the quality of waste composted, as outlined in Table 3 of Section 361-3.9, which is recreated below:

Table 3- 4: Analyses Required During Operation - Biosolids

Biosolids Used (dry tons/year)	Minimum Number of Analyses	Reduced Frequency for Low Pollutants*
>15,000	24	12
>2,500 to 15,000	12	6
200 to 2,500	6	4
25 to 199	4	2
<25	2	1

3. With the exception of pH and total solids all results must be reported on a dry weight basis. After the waste has been monitored for two years at the frequency outlined, the Department can reduce the annual number of analyses required if the waste quality consistently meet the qualifying standards.

Finished compost will be sampled before land application. Each sample must not exceed the pollutant concentrations found in Table 6 of Section 361.3.9, which is recreated below:

Table 3- 5: Pollutant Limits

Parameter	Maximum Concentration mg/kg, dry weight
Arsenic	41
Cadmium	10
Chromium (Cr-Total)	1,000
Copper	1,500
Lead	300
Mercury	10
Molybdenum	40
Nickel	20
Selenium	100
Zinc	2,500

All compost material is used on-site on farm fields permitted for land application. No material is distributed or sold off-site.

4.0 Training Requirements

There are a number of staff required for this compost facility. At all times during the hours of operation, there will be a minimum of one staff person onsite.

Compost Facility Supervisor: This staff person must have completed the compost operator training and be familiar with all operating procedures and contingency plans. This person is normally on site during operating hours, and is responsible for delegating supervisor duties to another staff person during any absence. This compost facility supervisor is responsible for all of the day to day operations in the compost facility, including record keeping. The compost facility supervisor will also be trained and responsible for operating the equipment.

5.0 Emergency Response Plan

5.1 Local Emergency Services

Arrangements will be coordinated with the respective emergency response teams in the event that their service is required at the facility. Dickson Environmental maintains contact with the local fire department and police department as listed below.

The following emergency numbers will be conspicuously posted at the site near telephones:

1. Fire Department (Emergency): 911
Nearest Fire Department/Emergency Medical Services:
Bath Fire Department: (607) 776-6909
2. Police Department:
Steuben County Sheriff's Department: 911 or (607) 622-3901
3. Government Response Agencies:
New York State Department of Environmental Conservation
Spills Hotline: (800) 457-7362
NYSDEC Region 8 Division of Materials Management (585) 226-5408

5.2 Site Emergency Coordinators and Contact Information

The emergency coordinator for the site is as follows:

Primary: Compost Facility Supervisor – Luke Dickson
Business Phone: (607) 965-2433

At all times during hours of facility operation, there will be at least one Emergency Coordinator on site or on call, with the authority to commit the necessary resources of the facility to carry out the provisions of this Manual.

The compost facility supervisor is designated as the primary Emergency Coordinator for the facility. Telephone numbers for this individual are listed above. It is the responsibility of this person to identify and coordinate any special or emergency activities during operating hours. Events that require the attention of the Emergency Coordinator include fire, explosion, air/soil releases, unscheduled facility shutdown, power failure, and delivery of unauthorized material to the facility (other than an incidental amount).

Should an incident take place, the Emergency Coordinator will secure the facility by closing off the affected area. Once the area has been isolated from traffic, appropriate actions will be taken, for example, activation of fire extinguishers, or removal of combustible material.

The Emergency Coordinator will be responsible for contacting any additional support teams as needed to assist in responding to an event. If evacuation of the facility is necessary, the Emergency Coordinator will activate the alarm, direct employees to evacuation routes and oversee roll calls at assembly areas.

5.3 Emergency Equipment

General Safety and Emergency Equipment: Emergency equipment will be placed and stored at the site and will include the following:

1. First Aid kits, safety glasses, work gloves, safety drum plugs, Speedy Dry absorbent.
2. Fire extinguishers, Type ABC.
3. Equipment for moving containers or debris.
4. Two-way communication via radio or cellular push-to-talk telephones.

Vehicles on location may be used to transport persons to hospitals when the need arises.

General Personal Protective Equipment: All employees engaged in the processing of material will be required to wear work boots, gloves, safety glasses, and ear protection as appropriate. All employees will be shown the location of all safety equipment during their training.

Fire Protection Equipment: Fire extinguishers will be available inside the compost facility. All fire extinguishers will be capable of fighting Class A, B, and C fires as defined by the Underwriters Laboratories. All operating personnel will receive periodic training in the proper use of fire extinguishers.

Spill Response Equipment and Procedures: The major risk of spills involve fuel and oil spills from the equipment or from storage containers. All fuel and oil will be stored in a manner consistent with the relevant standards and requirements. Any accidental spills of fuel or oil will be cleaned up immediately, and the resulting contaminated soil or cleanup material delivered to a facility permitted to handle this waste.

5.4 Operational Contingencies

5.4.1 Equipment Breakdown

Most equipment failures will not cause a facility shutdown due to the available storage volume for material and alternative outlets through their land application activity onsite. In the event an equipment malfunction or storm event prompts a shutdown, alternatives are available depending on the magnitude of the malfunction.

There are several contingency plans required in case of crucial equipment breakdown, depending on the equipment. The EnviroProcessor, compost turner and aeration blowers all require continual use. Therefore, the contingency plan addresses equipment that is in use daily.

Components and parts that may wear and need replacing will be stocked onsite for the crucial equipment.

The compost turner is a crucial piece of equipment that is used seven times weekly. If a breakdown results in the equipment not being available for more than four days, an alternate management plan will have to be implemented. This includes unloading and moving the compost in the channels with an industrial loader, similar to an aerated bunker type of composting facility. Because the channels have a solid concrete floor, the loader has easy access to all the material within the channel.

The aeration blowers are also crucial to the process. A spare blower will be on hand at all times, so if one fails. It can be replaced within hours.

There is also the contingency required if there is an interruption in electrical power. An interruption of more than a few hours has the potential to cause problems due to the lack of odor control and aeration. A short term solution for up to a few days is to close the building, not allowing any air in or out. This will eliminate the short term potential odor issue. There is no other concern in the system if there was no power for a few days.

In the event of facility shutdown, material would be land applied on their permitted farm fields.

5.4.2 Extreme Weather Events

Since nearly all activities associated with the compost facility are conducted within building enclosures, the potential impacts to facility operations due to severe weather are anticipated to be minimal. However, the following operating procedures have been developed to be implemented during inclement weather to minimize impacts to facility operations.

Periods of excessive winds are not anticipated to impact facility operations because nearly all of the activities at the facility are conducted within building enclosures. The clearing of snow and application of sand will be required during periods of substantial snow or freezing conditions. Snow removal from facility roadways will be accomplished using a plow truck and/or the front end loader. In addition, routine snow removal and application of salt or sand to facility walkways will be conducted to ensure safe and effective operations during periods of substantial snowfall or freezing conditions.

5.4.3 Fires

Open burning is expressly prohibited at all times. Access to all areas of the facility will be maintained at all times for firefighting and emergency response equipment. In the event that the facility requires evacuation, operators will activate the alarm and supervisory personnel will verbally direct personnel to posted evacuation routes.

Portable extinguishers are located in the compost building.

In order to prevent the occurrence of a fire at the facility, personnel will be trained to maintain safe operating procedures. All personnel will be advised of the location and proper means of operating fire-fighting equipment located on-site. In addition, the locations of such equipment will be clearly marked. Restriction of ignition sources from areas containing flammable materials will be maintained. "No Smoking" signs are posted at all waste receiving areas. Monthly inspection and preventative maintenance of all fire protection equipment will be conducted to ensure proper operation should use be necessary.

Fires in any of the structures or other fires requiring assistance will be immediately called into Emergency 911. In the event of a fire, the following steps will be taken:

- 1) The person first observing the fire will notify Bath Fire Department immediately.
- 2) Area personnel will secure the nearest fire extinguishers and apply these to the fire.
- 3) Once the Fire Department is on-site, the machine operators will turn the material pile so as to expose any combusting material.
- 4) Fire Department personnel will extinguish any fire not controllable by site personnel.
- 5) Evacuation will be implemented if this is necessary.
- 6) Until clearance is given by the Fire Department, no material will be tipped in the facility.
- 7) The Emergency Coordinator will ensure that all emergency equipment specified in the plan will be restored to pre-accident conditions and be fit for use prior to resuming activities.

5.4.4 Receipt of Unauthorized Waste

The Dickson Environmental Services Compost facility accepts only biosolids, food processing waste, and manure. No other types of waste will be accepted, and strict controls will be used to prevent unacceptable waste from entering the facility. Inspection and processing activities ensure that approved waste streams remain segregated and are recovered, removed, or processed in accordance with 6 NYCRR Part 360 series regulations and the site's permit. Refer to Section 2.4 for Unauthorized Waste Procedures.

6.0 Recordkeeping and Reporting

6.1 Recordkeeping

Logs are kept including the date, the quantity, waste data analyses, bulking agents, description and origin of material received; process operational information including monitoring data and significant facility operational problems; a description of the end-product and disposal methods; and the quantity and the destination of unauthorized material removed from the processing area, by category, and sent from the facility for disposal. Copies of shipping documents, including manifests as needed for unauthorized materials, will be retained in accordance with applicable regulations.

Dickson Environmental retains copies of all records relating to the operation of the facility. Operational logs, records, and NYSDEC reporting forms will be maintained for a minimum of seven years.

6.2 Reporting

Annual reports will be prepared which will identify equipment additions and facility changes, and detail the volume of various types of material handled. These reports are completed on forms supplied by the Department, and are submitted to the NYSDEC Central Office as well as to the NYSDEC Region 8 office no later than March 1st of each year for the operation of the compost facility in the previous calendar year. These records are maintained on-site.

7.0 Conceptual Closure Plan

The purpose of facility closure is to ensure that the facility operations will be terminated in an organized manner that will preclude or minimize the need for further site maintenance or corrective actions and to prevent or remedy adverse environmental or health impacts. Properly implemented, the closure procedures must ensure that adverse environmental or health impacts such as, but not limited to, contamination of surface and groundwater, gas migration, odors and vectors, are minimized after site closure.

Facility closure will also be implemented in the event of termination of use of the facility resulting from permit renewal denial or an order of the NYSDEC or of a court.

This Closure Plan will be modified anytime during the active life of the facility whenever changes in the operating plans or facility design affect the Closure Plan. In these cases the proposed revised Closure Plan will be submitted to the NYSDEC for review and closure prior to finalization.

7.1 Closure Procedures

Since the facility operations do not coincide with an ultimate or finite on-site disposal capacity, a closure date is not specified. Currently, active facility operations are anticipated to occur for an indefinite time period.

Dickson Environmental will notify the NYSDEC in writing 30 days prior to the anticipated final receipt of waste. All closure activities must be completed within 90 days after receiving the final quantity of waste. Within 30 days of the final receipt of waste, an annual report must be submitted to the NYSDEC. Following the removal of all waste from the site, all closure activities including the removal of all byproducts of waste and the decontamination of all equipment and structures used for compost management activities must be completed within 90 days of the final waste receipt.

All facility equipment pieces involved with the composting activities will be thoroughly cleaned and washed, as necessary, for purposes of decontamination. The interior floors and walls of the compost building will be thoroughly cleaned and washed. In addition to this general wash-down step, additional washing, using high-pressure water, steam cleaning and/or detergents, may be provided for the interior of the compost area, as necessary, to ensure that this building is adequately cleaned and decontaminated. All wash water generated within the interior of the compost building by these routine closure activities will be collected and managed in facility's liquid retention ponds.

The compost building will not be dismantled; rather, it will remain for alternate continuing use of the property. Likewise, the various gravel areas and drives present will remain for continuing site use. Similar facility appurtenances, such as gates, lighting, etc., will remain after facility cleaning and closure.

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