



STATE OF DELAWARE

89 KINGS HIGHWAY
DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403
FAX: (302) 739-5060

DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
SOLID AND HAZARDOUS WASTE MANAGEMENT SECTION

March 13, 2019

Mr. Jeff Downing, Executive Director
Mt. Cuba Center, Inc.
3120 Barley Mill Rd.
Hockessin, DE 19707

Subject: Modifications to Composting Permit #SW-19/02
Reference: Mt. Cuba Center, Inc, File Code: 02.B

Dear Mr. Downing:

Enclosed is Composting Permit #SW-19/02 (the "Permit") issued by the Solid and Hazardous Waste Management Section (the "SHWMS"). The Permit approves Mt. Cuba Center, Inc. ("Mt. Cuba") to accept leaves generated off-site and process leaves and on-site generated yard waste to produce quality compost for use on Mt. Cuba's property located at 3120 Barley Mill Road in Hockessin, Delaware.

The enclosed Permit is a modified version of that issued on February 21, 2019. The modifications are clarifications based upon a March 8, 2019 meeting with Mt. Cuba's grounds / composting personnel.

If you have any questions concerning this Permit, please contact Jeff Martin at (302) 739-9403 and select Option 8.

Sincerely,

A handwritten signature in blue ink, appearing to read "JWS", written over the word "Sincerely,".

Jason W. Sunde
Environmental Program Administrator
Solid & Hazardous Waste Management Section

Enclosure

cc: Peter Shotzberger, Mt. Cuba (via email)

JWS:JRM

Delaware's good nature depends on you!

COMPOSTING PERMIT #SW-19/02

Effective Date: February 21, 2019
Modification Date: March 13, 2019
Expiration Date: February 21, 2024

Facility Name: Mt. Cuba Center, Inc.
Facility Address: 3120 Barley Mill Road
Hockessin, Delaware 19707

Mailing Address: 3120 Barley Mill Road
Hockessin, Delaware 19707

Contact Person: Peter Shotzberger, Compost Coordinator
Phone Number: (302) 239-8825

Alternate Contact Person: Jeff Downing, Executive Director
Phone Number: (302) 239-5366

Location of Approved Activity: 3120 Barley Mill Road
Hockessin, Delaware 19707
Tax Parcel Number: 08-015.00-001

I. GENERAL CONDITIONS

- A. In accordance with Delaware’s *Regulations Governing Solid Waste* (“DRGSW”), Section 2.5.1, the Department of Natural Resources and Environmental Control (the “Department”) issues Composting Permit #SW-19/02 (“Permit”) to Mt. Cuba Center, Inc. (“Mt. Cuba”) of Hockessin, Delaware for the purpose of accepting leaves generated off-site, and processing leaves and on-site generated yard waste to produce quality compost for use solely on property owned by Mt. Cuba. The composting facility is located approximately 600 to 700 feet northeast of the intersection of Mt. Cuba Road and Barley Mill Road, occupies nearly 1.35 acres (see attached Site Location Map and Site Plan), and is situated entirely within tax parcel 08-015.00-001.
- B. This Permit shall be conducted in accordance with the Conditions herein and with the following documents, as submitted to the Department: (1) Application for Composting Permit, dated July 31, 2018, and associated documents received in November and December 2018; (2) Conceptual Closure Plan received August 15, 2018; and (3) other procedures and policies specifically referenced in this Permit.
1. Conditions of this Permit shall take precedence over any of the above listed documents.

2. Failure to comply with any Condition of this Permit or any provisions within the aforementioned documents is a violation of this Permit.

C. Permit Availability

Mt. Cuba shall immediately make available, upon request, a copy of this Permit to any representative of the Department or any law enforcement officer.

D. Renewal

Pursuant to DRGSW Section 4.1.6, Mt. Cuba shall submit a permit application with all supporting documentation to the Department at least 180 days prior to the expiration of this Permit if applicant desires to renew the Permit. Mt. Cuba may be required to submit additional documentation as needed at the Department's sole discretion.

E. Modifications

1. The Department may initiate modification of this Permit, including, but not limited to, additional limitations, requirements, and/or special Conditions, at any time if the Department finds that the existing Permit Conditions are either not adequate or not necessary to protect human health and the environment, as set forth in DRGSW Section 4.1.7.2, or in the event the regulations governing activities authorized in this Permit are revised.

2. Mt. Cuba shall petition the Solid and Hazardous Waste Management Section of the Department (the "SHWMS") in writing at least 90 days prior to the anticipated need to implement any change in waste characteristics; changes that will alter the beneficial use of the incoming waste material; or changes to processes, operations, or procedures described in the application documents referenced in Section I.B. of this Permit. Mt. Cuba shall not implement said changes unless and until they have been notified in writing from the SHWMS agreeing to the change(s).

F. Permit Transfer

At least 60 days prior to the date of the proposed transfer, Mt. Cuba must submit all documentation required by DRGSW Section 4.1.8. The actual transfer will be contingent upon the transferee meeting all Permit and regulatory requirements; until such time, the current permittee will remain liable for compliance regardless of who owns the facility.

G. Revocation or Suspension

This Permit may be revoked or suspended upon violation of any Condition of this Permit, DRGSW, or 7 Del. C. Chapter 60.

II. GENERAL OPERATING CONDITIONS:

A. Location and Facility

1. The Mt. Cuba composting facility:
 - a. Is located approximately 600 to 700 feet northeast of the intersection of Mt. Cuba Road and Barley Mill Road; and,
 - b. Occupies approximately 1.35 acres.
 - c. The attached Site Location Map indicates the location of the composting facility relative to Mt. Cuba's main campus.
 - d. The attached Site Plan depicts the facility layout.

2. Modification of existing facility infrastructure, construction of new composting facility infrastructure, and/or expansion of the facility bounds is prohibited without prior written approval of the Department.
 - a. To obtain Department approval, Mt. Cuba shall petition the SHWMS in accordance with Section I.E.2.
 - b. Initiation of construction activities at the composting facility without written Department approval is a violation of this Permit.
- B. Operating Hours

All receiving, processing, and composting shall be limited to the hours of 8:00 am to 4:30 pm Monday through Friday. The Mt. Cuba composting facility shall not be open to the general public.
- C. Security and Access

Mt. Cuba shall control access to the composting facility to prohibit the entry of unauthorized individuals. Representatives of the Department may, at any reasonable time, enter the facility to verify compliance with the Conditions of this Permit, the DRGSW, and 7 *Del. C.* Chapter 60.
- D. Litter
 1. Litter may include any solid waste not approved for processing.
 2. Fugitive feedstock wastes from incoming waste streams and fugitive compost from out-going product shipments that escaped proximal to the facility entrance from Mt. Cuba Road shall be considered and managed as litter.
 3. Mt. Cuba shall inspect the entire composting facility daily, excluding weekends and holidays, for general cleanliness and litter.
 4. All litter encountered shall be immediately collected, placed in a designated enclosed container, and sent for disposal at an approved disposal facility within 72 hours of the container becoming full or at the Department's request to dispose of the waste, whichever comes first.
 5. Mt. Cuba shall implement good housekeeping practices and include such practices in employee trainings, pursuant to Section II.J. of this Permit.
 6. Mt. Cuba shall document any complaint received pertaining to litter emanating from the composting facility and shall retain the records in accordance with Section V. of this Permit.
 7. Mt. Cuba shall notify the SHWMS of any complaints of litter received by Mt. Cuba in accordance with Section VI. of this Permit.
- E. Dust Control
 1. Mt. Cuba shall operate its facility in a manner to prevent dust generated from composting activities to migrate beyond the facility boundaries.
 2. Mt. Cuba shall implement the following dust mitigation practices, as necessary:
 - a. Application of water.
 - b. Consideration of wind characteristics during potential dust-generating activities such as windrow/pile turning, grinding, and screening including, but not limited to, postponing dust-generating activities until wind characteristics are more favorable for such activities.
 - c. Use of enclosed transportation, and/or use of tarps and/or covers on all open in-bound and out-bound loads and shipments.

- d. Other means as necessary.
 3. In accordance with Section V. of this Permit, Mt. Cuba shall maintain detailed records of all dust mitigation practices implemented and of any complaint received pertaining to dust emissions from the composting facility.
 4. Mt. Cuba shall notify the SHWMS of any complaints of dust received by Mt. Cuba in accordance with Section VI. of this Permit.
- F. Odor Control
1. Mt. Cuba shall operate its facility in a manner to prevent odors generated from composting activities to be perceived beyond the facility boundaries.
 2. Mt. Cuba operators shall be trained, in accordance with Section II.J. to recognize the improper odors associated with anaerobic decomposition or other improper composting techniques and to take corrective action to eliminate these odors by employing proper materials management and composting procedures, pursuant to Sections III.C. through III.F. of this Permit.
 3. Mt. Cuba shall document any complaint received pertaining to odors emanating from the Mt. Cuba facility and any subsequent odor mitigation practices implemented, and shall retain the records in accordance with Section V. of this Permit.
 4. Mt. Cuba shall notify the SHWMS of any complaints of odors received by Mt. Cuba in accordance with Section VI. of this Permit.
- G. Vectors
1. Mt. Cuba shall operate the composting facility in a manner to prevent the establishment of habitats for nuisance organisms (such as flies, maggots, roaches, rodents, and similar vermin) and to mitigate nuisances and hazards to public health and the environment.
 2. Mt. Cuba shall monitor the facility daily, excluding weekends and holidays, for the presence of vectors, nuisance organisms, and any conditions that may contribute to the presence of vectors and nuisance organisms.
 3. Any vector(s) encountered or conditions favorable to the establishment of vector habitats shall be legally remedied immediately.
 4. Mt. Cuba shall document the presence of any undesirable vectors, any complaint received pertaining to vectors at or from the Mt. Cuba facility, and all remedies implemented and shall retain the records in accordance with Section V. of this Permit.
 5. Mt. Cuba shall notify the SHWMS of any complaints of vectors received by Mt. Cuba in accordance with Section VI. of this Permit.
- H. Health and Safety, and Contingency
1. Mt. Cuba shall implement Health and Safety practices aligned with Occupational Safety and Health Administration (“OSHA”) guidance.
 2. Mt. Cuba shall provide all employees with health and safety training appropriate for each employee’s duties and responsibilities, pursuant to Section II.J. of this Permit.
 3. At a minimum, Mt. Cuba’s use of personal protective equipment shall be in accordance with 29 CFR Part 1910.132.
 4. Mt. Cuba shall make first aid equipment immediately available at the site. The readiness of first aid equipment and supplies shall be periodically assessed and addressed, as conditions dictate.

5. Mt. Cuba shall maintain a current and correct list of emergency contact telephone numbers to include nearby ambulance, hospital, police, and fire services. The most current list shall be accessible at the facility. All operating personnel shall be informed of its location and function.
6. Mt. Cuba shall maintain capability to react appropriately to emergencies. Mt. Cuba shall react to spills, fires, accidents, and other emergencies so as to protect human health and safety and the environment.
7. Staff responding to emergencies at the facility shall be appropriately trained, pursuant to Section II.J. of this Permit.
8. Mt. Cuba shall document all health and safety training provided to each employee and retain the records in accordance with Section V. of this Permit.
9. Fire Safety
 - a. All wastes and materials present at the composting facility to include, but not limited to, feedstock wastes and materials, other stockpiled wastes and materials, actively composting wastes, fully matured finished compost, segregated prohibited wastes, and litter shall be managed in order to prevent the possibility of fires.
 - b. Flammable or combustible, or potentially flammable or combustible, materials shall be stored in accordance with applicable fire safety regulations.
 - c. No smoking shall be permitted in the receiving, processing, screening, and storage areas.
 - d. Mt. Cuba shall meet with the representatives from the Hockessin Fire Company to ensure that firefighting personnel are familiar with the layout of the facility, the sources of water for firefighting, and the methods of fighting a compost fire. Mt. Cuba shall develop a fire management plan with the Hockessin Fire Company, which shall be implemented immediately, reviewed annually, and updated as needed.
 - e. Employees shall be trained in the proper procedures for fighting a compost fire in accordance with Section II.J.
 - f. Mt. Cuba shall maintain fire suppression equipment, such as fire extinguishers, in a fully functional condition, and in accordance with Section II.I.4. of this Permit, as applicable.
 - g. Temperature monitoring shall be performed and recorded for all organic wastes and/or materials stored or otherwise maintained at the composting facility in accordance with Section III.G. Collected litter, segregated prohibited wastes, and similar items stored in designated enclosed containers pending proper disposal are excluded from temperature monitoring requirements.
 - h. If smoke is detected or if routine temperature monitoring in accordance with Section III.G. shows a location in a windrow or pile where temperatures are greater than 160 degrees Fahrenheit (160°F):
 - i. The site manager shall be notified immediately,
 - ii. Appropriate action shall be taken to reduce the risk of fire, and
 - iii. Records shall indicate the temperature measured, as well as any actions taken to lower the temperature and reduce the risk of fire, as applicable.

- i. The site manager shall act promptly to investigate and address all issues related to fire safety.
 - j. If a fire is detected, Mt. Cuba shall call 911 to request assistance from the local firefighting agencies. Mt. Cuba shall immediately notify SHWMS of any fire in accordance with Section VI.2. of this Permit.
- I. Equipment
- Along with manual labor, Mt. Cuba will use mechanical equipment to process incoming yard waste feedstocks and to handle finished compost.
1. The equipment to be used to process materials on-site includes, but is not limited to, a wood chipper and a small vibrating screen.
 2. The equipment to be used for the transportation and handling of unprocessed materials and final products includes, but is not limited to, a small non-commercial dump truck and a front end loader.
 3. Processing and material handling equipment shall be selected and operated in compliance with the Department's Division of Air Quality (DAQ) regulations, as applicable.
 4. Operation, Inspection, and Maintenance
 - a. Mt. Cuba shall operate, inspect, and maintain all equipment using adequately trained individuals and in accordance with the manufacturer's recommendations; permits; all applicable local, state, and federal ordinances, laws, and regulations; and this Permit.
 - b. Mt. Cuba shall maintain and operate all equipment in a manner that protects Mt. Cuba's employees, the public, and the environment.
 - c. Mt. Cuba shall document all equipment operation, inspection, and maintenance training provided to each employee as required by Section II.J. and retain the records in accordance with Section V. of this Permit.
 - d. Mt. Cuba shall document all inspections and maintenance of all equipment and retain the records in accordance with Section V. of this Permit.
- J. Training
1. Mt. Cuba shall provide all employees who are to work in the receiving or compost processing areas with training appropriate for each employee's duties and responsibilities.
 - a. Training shall be required initially and annually thereafter, unless otherwise specified by a nationally recognized training provider (for example, the American Red Cross as a training provider for First Aid).
 - b. Initial training shall be provided within 180 days of hire.
 - c. Training shall include, but is not limited to, the following topics:
 - i. Health and safety procedures
 - 1) Fire prevention and protection
 - a) Proper procedures for fighting a compost fire
 - 2) Emergency response
 - a) Emergency first aid
 - b) Cardiopulmonary resuscitation (CPR)
 - c) Spills and accidents responses
 - ii. Composting Operations

- 1) Proper materials management and composting procedures
 - a) Acceptable compost feedstock materials identification
 - b) Prohibited wastes identification and response
 - c) Improper odors associated with anaerobic decomposition
 - 2) Facility inspections
 - 3) Equipment operation, inspection, and maintenance
 - a) Manufacturer's operating and maintenance manual
 - b) Operation instruction
 - c) Equipment safety features
 - d) Hazards that might be encountered
 - e) To be conducted by the equipment manufacturer's representative or another person specifically knowledgeable in the operation of the equipment
 - 4) Good housekeeping practices
2. Mt. Cuba shall document all trainings for employees and retain the records in accordance with Section V. of this Permit.

III. OPERATIONS:

A. Authorized Waste Types

1. Mt. Cuba may accept only the following wastes for processing into compost.
 - a. Off-Site Generated Wastes:
 - i. Leaves
 - ii. No additional off-site generated wastes shall be accepted.
 - b. On-Site Generated Wastes:
 - i. All yard wastes
 - ii. Including limbs and trees without root balls
2. All wastes present at the Mt. Cuba composting facility shall be managed in accordance with this Permit.

B. Prohibited Waste Types

1. Plastics;
2. Glass and/or metal;
3. Painted, stained, coated, or treated wood; wood containing glues, resins, veneers, chromated copper arsenate (CCA), creosote, or other chemical preservatives; and/or wood that is contaminated or suspected to be contaminated with polychlorinated biphenyls (PCB), petroleum products, or hazardous chemicals;
4. Mixed municipal solid waste (trash/garbage) and/or tires;
5. Batteries and/or electronics;
6. Lumber, stumps, and/or construction waste;
7. Food wastes;
8. Biosolids and/or septage;
9. Petroleum-containing materials and/or wastes;
10. Medical wastes including sharps, radioactive materials, universal wastes, or hazardous wastes;
11. Manure, sludge or other agricultural or solid or liquid wastes, including mortalities;

12. Non-agricultural mortalities; and,
13. Asbestos-containing materials and/or wastes.

C. Procedures for Waste Acceptance

1. Mt. Cuba shall determine and record the weight or volume for all incoming waste, rejected waste, and outgoing waste.
2. Upon arrival at the facility, all incoming loads of leaves shall be inspected prior to and after unloading.
 - a. Any loads that appear to contain any of the prohibited wastes listed in Section III.B. of this Permit shall be rejected prior to unloading.
 - b. All loads of waste that are received shall be unloaded onto a designated receiving area and inspected. Any prohibited wastes that are visible shall be handled as follows:
 - i. If prohibited wastes listed as Sections III.B.1. through III.B.7. are identified in a load:
 - 1) The prohibited waste shall be segregated from the remainder of the load
 - 2) Returned to the hauler/generator immediately.
 - ii. If prohibited wastes listed as Sections III.B.1. through III.B.7. are identified after the hauler/generator has left the Mt. Cuba facility:
 - 1) The prohibited waste shall be immediately removed from the load, and
 - 2) Lawfully managed, and
 - 3) Lawfully removed from the site within 72 hours.
 - iii. If prohibited wastes listed as Sections III.B.8. through III.B.13. are identified in a load:
 - 1) Mt. Cuba shall notify the SHWMS in accordance with Section VI.A.
 - 2) Mt. Cuba shall implement proper handling and disposal procedures as directed by the SHWMS.
3. Mt. Cuba shall document the type, the quantity, and the hauler/generator of all prohibited wastes.
4. Mt. Cuba shall contact the hauler/generator of the prohibited wastes to explain the reason for rejection, and that if future loads of prohibited materials are received, Mt. Cuba will no longer accept any loads of waste from that hauler/generator.
5. Mt. Cuba shall not accept any loads of wastes from haulers/generators whose loads habitually contain prohibited wastes.

D. Procedures for Waste Handling

1. Grass clippings shall be managed in a manner to prevent odors from being perceived beyond the facility boundaries, including, but not limited to, incorporating them into partially composted leaves or other yard waste.
2. Compost piles or windrows shall be constructed within one week (1 wk.) following the receipt of sufficient quantity of compostable feedstock material at Mt. Cuba.

E. Procedures for Storage of Waste

1. The total combined quantity of on-and off-site generated leaves stored shall not exceed 800 cubic yards.
2. Yard waste and leaves shall be stored in the areas designated on the attached site plan.
3. All piles of yard wastes, whether ground or unground, shall have a maximum height of 15 feet.

- a. Actively composting wastes which are monitored for temperature less frequently than daily are limited to a windrow/pile height of 12 feet or less.
 4. The temperature of all waste piles shall be monitored in accordance with Section III.G. of this Permit to ensure the temperatures within the piles do not exceed 160°F. If a pile temperature measurement is above 160°F, follow the fire safety procedures outlined in Section II.H.9.h. above
 5. Prohibited waste, collected litter, and associated wastes shall be stored in a designated appropriate disposal container. Prohibited wastes shall be managed as specified in Section III.C.2.b. Collected litter and associated wastes shall be removed within 24 hours of the container becoming full or within 72 hours of the Department's request to dispose of the waste, whichever comes first.
 6. Any other storage of waste not described in this Permit is prohibited.
- F. Procedures for Waste in the Process of Composting
1. All material in the process of composting shall be placed into static piles.
 2. No static pile shall exceed 15 feet in height.
 - a. Sections III.G.6.b.iv, and III.G.6.c.i. further restrict static pile height to a maximum of 12 feet when temperatures are monitored less frequently than daily.
 3. Compost processing time and temperatures shall be sufficient to kill weed seeds, reduce pathogens and vector attraction, and produce quality compost.
 - a. Pathogen and vector attraction reduction compliance shall be achieved by maintaining the compost material at a minimum average temperature of 131°F or higher for 15 consecutive days during which the windrow/pile shall be turned a minimum of five (5) times, as is appropriate for a static (non-aerated) pile composting methodology.
 4. The temperature of actively composting wastes shall be monitored in accordance with Section III.G. of this Permit.
- G. Temperature Monitoring
1. The temperature of actively composting wastes shall be monitored and recorded daily, initially, in accordance with the schedule provided in Section III.G.6. utilizing industry-standard equipment and methods.
 - a. Average windrow and/or pile temperatures shall be calculated from a minimum of three (3) measurements made at varying locations and depths within the windrow and/or pile. The calculated average temperature should be representative of actual conditions, thus more than three (3) measurements may be necessary.
 - b. Thermometer calibration should be checked and recorded at least monthly, and the thermometer should be recalibrated as necessary. Calibration shall be performed pursuant to the manufacturer's instructions.
 2. The temperature of ground wastes and/or materials not actively composting, to include piles of ground feedstock wastes and/or materials, other piles of ground organic waste and/or materials stored at the composting facility, and piles of fully matured finished compost which has completed curing, shall be monitored and recorded weekly, at a minimum.
 3. Collected litter, segregated prohibited wastes, and similar items stored in designated enclosed containers pending proper disposal are excluded from the temperature monitoring requirements herein.

4. Under no circumstance shall the temperature of any windrow or pile of any yard waste exceed 160°F. In the event the measured temperature of any waste is 160°F or greater, Mt. Cuba shall follow the fire safety procedures outlined in Section II.H.9.h. above.
5. The graduated temperature monitoring schedule presented in Section III.G.6. is based upon a history of compliance and the qualifications and experience of personnel responsible for composting operations.
 - a. Authorization to implement the graduated temperature monitoring schedule presented in Section III.G.6. may be suspended or revoked at the sole discretion of the Department due to any violation of the Conditions of the Permit or due to any decision or action deemed counter to the spirit of this Permit.
 - b. In the event that there is a change in personnel responsible for composting operations, Mt. Cuba shall submit to the Department the qualifications and experience with regard to composting operations of the staff member who is proposed to be responsible for Mt. Cuba's composting facility in curriculum vitae, résumé, or other similar format, as well as three (3) applicable professional references with corresponding contact information. Based upon the information provided and any statements made by the provided references, the Department will determine whether or not the graduated temperature monitoring schedule will continue to be authorized. Whether or not the graduated temperature monitoring schedule will be authorized is at the sole discretion of the Department.
 - c. In the event the Department suspends or revokes permission to implement the graduated temperature monitoring schedule or there is a change in personnel responsible for composting operations, actively composting wastes and materials shall be monitored daily, excluding weekends and holidays; in accordance with only Section III.G.6.a; the provisions provided under Sections III.G.6.b. and III.G.6.c. may not be implemented.
 - d. In the event the Department suspends or revokes permission to implement the graduated temperature monitoring schedule, reinstatement of the schedule may be considered upon written request once violations have been satisfactorily corrected or when responsible personnel can demonstrate improved qualifications and/or additional experience to the satisfaction of the Department.
6. Graduated Temperature Monitoring Schedule
 - a. Daily Temperature Monitoring
 - i. Daily shall be defined as once every 24 hours, Monday through Friday, excluding holidays.
 - ii. During daily temperature monitoring, a Sunday may be substituted for a Monday, and a Saturday may be substituted for a Friday. Under no circumstance shall the time between temperature measurements exceed 72 hours, however at least 24 hours of the 72-hour temperature monitoring gap must be a Saturday or Sunday.
 - iii. Compost temperature monitoring shall be performed daily, excluding weekends and holidays,
 - 1) For a minimum of five (5) days following windrow/pile construction and/or any disturbance of the pile/windrow. Disturbance of a

- pile/windrow shall include, but is not limited to, turning, addition of any material, or any activity which increases air/oxygen supply to the pile/windrow, excluding screening of a fully matured finished compost.
- 2) For a minimum of three (3) days following any single (not average) compost temperature measurement of 156 °F or greater.
 - 3) During any period of time intended to serve as pathogen or vector attraction reduction.
 - 4) And until a decreasing average temperature trend is established as specified in Section III.G.6.b.iv.3)
- b. Every-Other-Day Temperature Monitoring
- i. The temperature of actively composting wastes which meet the criteria provided in Section III.G.6.b.iv. may be monitored and recorded on an every-other-day basis.
 - ii. Every-other-day shall be defined as once every 48 hours, Monday through Friday, excluding holidays.
 - iii. During every-other-day temperature monitoring, temperature measurements must be made every Monday and Friday, however, a Sunday may be substituted for a Monday, and a Saturday may be substituted for a Friday. Under no circumstance shall the time between temperature measurements exceed 72 hours.
 - iv. The temperature monitoring frequency may be reduced from daily to every-other-day
 - 1) After
 - a) A minimum of five (5) days following windrow/pile construction and/or any disturbance of the pile/windrow, and/or
 - b) A minimum of three (3) days following any single (not average) compost temperature measurement of 156 °F or greater, and/or
 - c) Any period of time intended to serve as pathogen or vector attraction reduction.
 - 2) If the windrow/pile height is 12 feet or less, and
 - 3) Once a decreasing average temperature trend has been established via decreasing average temperatures recorded over three (3) successive days (e.g.: $a > b > c$, where $a = T_{avg. \text{ on Day } x}$, $b = T_{avg. \text{ on Day } x + 1}$, $c = T_{avg. \text{ on Day } x + 2}$).
 - 4) The decreasing compost temperature trend may be established during the periods of time specified in Section III.G.6.b.iv.1).
- c. Twice Weekly Temperature Monitoring
- i. The temperature monitoring frequency for actively composting wastes being monitored every-other-day may be reduced to twice weekly monitoring once the average windrow/pile temperature is 105 °F or less for three (3) consecutive measurements or one (1) week, whichever is greater.
 - 1) Windrow/pile height may not exceed 12 feet.
 - 2) During twice weekly temperature monitoring, a minimum of 72 hours and a maximum of 96 hours between temperature measurements shall apply. No exceptions for weekends and holidays will be made.

- ii. Any composting wastes monitored twice weekly with an average windrow/pile temperature measurement greater than 105°F, shall return to every-other-day temperature monitoring until the criteria to monitor twice weekly is satisfied once more.
- d. Weekly Temperature Monitoring
 - i. Windrows/piles of ground yard wastes which are not actively composting and fully matured finished compost (compost which has completed curing) may be monitored on a weekly basis.

IV. FINISHED COMPOST USE AND APPLICATION

- A. Finished compost shall be used:
 - 1. As a soil amendment, and
 - 2. Solely on property owned by Mt. Cuba.
- B. If Mt. Cuba desires to distribute its finished compost to others:
 - 1. Mt. Cuba shall request a modification to this Permit, and
 - 2. Mt. Cuba shall not distribute finished compost to others unless and until a modified Permit has been issued.
 - a. Additional sampling and analytical criteria may apply.

V. RECORDKEEPING

- A. Mt. Cuba shall record the information required by Section V.B. of this Permit. The records shall be kept on-site at the Mt. Cuba Grounds Maintenance Office located at the main Mt. Cuba campus for a period of three (3) years and shall be made immediately available to the Department for review upon request.
- B. Mt. Cuba shall maintain the following records:
 - 1. Compost process control and monitoring information (e.g. temperature monitoring data to include compost thermometer calibration check and calibration documentation);
 - 2. Monthly volume of off-site generated leaves received;
 - 3. Information pertaining to prohibited wastes and rejected loads to include volume, weight, or quantity of prohibited wastes/rejected loads; date of (attempted) delivery and/or rejection; generator/hauler; the reason for rejection; type of prohibited waste; and any supplemental documentation required due to type of prohibited waste;
 - 4. Monthly volume of leaves stored (on- and off-site generated leaves, collectively);
 - 5. Monthly volume of all material in the process of composting;
 - 6. Monthly volume of finished compost produced;
 - 7. Monthly volume of all finished compost stored;
 - 8. Volume of wastes and/or litter sent for disposal, recycling, or reuse, and the date and facility where sent;
 - 9. Any odor, litter, vector, or dust complaints received by Mt. Cuba concerning the facility;
 - 10. All dust, odor, and vector mitigation activities implemented, to include date and time of implementation, method of mitigation, and any contracted mitigation services;

11. All training provided to employees;
12. All operational inspections, and all equipment inspections and maintenance;
13. Information sufficient to meet the requirements of Section VI. of this Permit for all incidents and emergencies;
14. Information pertaining to all notifications made to SHWMS or incidents requiring notification pursuant to Section VI.A. of this Permit, whether notification was made as required or not; and,
15. Detailed descriptions of all instances, whether intentional or accidental, of deviations from or noncompliance with this Permit.

VI. NOTIFICATION AND REPORTING

A. Incidental Notification and Reporting

Mt. Cuba shall notify SHWMS of all incidents and emergencies.

1. Mt. Cuba shall take immediate reasonable action to correct or remedy all incidents and emergencies in order to ensure human health and protect the environment.

2. Emergency Incidents

Mt. Cuba shall immediately notify the SHWMS by telephone at (302) 739-9403 (or, if after business hours, the Environmental Emergency toll-free hotline at 1-800-662-8802) in the event of:

- a. An emergency including, but not limited to, fire, explosion, spill, release, on-site vehicle/equipment accident resulting in personal injury, injury requiring hospitalization, and employee occupational exposure.
- b. Receipt of the following prohibited wastes:
 - i. Infectious/medical wastes including sharps
 - ii. Radioactive materials
 - iii. Hazardous wastes
- c. In the event that notification is made after the Department's normal business hours to the Environmental Emergency toll-free hotline, Mt. Cuba shall contact the SHWMS by telephone at the telephone number provided above within 24 hours of the emergency incident, or the following business day, to confirm notification.

3. Non-Emergency Incidents

Mt. Cuba shall notify the SHWMS by telephone at (302) 739-9403 or by e-mail within 24 hours or the following business day in the event of:

- a. Complaints pertaining to litter, dust, odors, or vectors emanating from the Mt. Cuba facility
- b. Receipt of the following prohibited wastes:
 - i. Biosolids and/or septage
 - ii. Petroleum-containing materials and/or wastes
 - iii. Universal wastes
 - iv. Manure, sludge or other agricultural or solid or liquid wastes, including mortalities
 - v. Non-agricultural mortalities.
 - vi. Asbestos-containing materials and/or wastes

- c. Facility changes including, but not limited to, changes in the company ownership, company name, company officials, management staff, and operators.
- d. Any exceedance of any limit established herein.
- e. Any failure to comply with any Condition of this Permit.
4. Mt. Cuba shall submit a detailed written notification by either e-mail or hardcopy to be received by the SHWMS no later than five (5) business days following any incident, emergency or otherwise, as listed in Sections VI.A.2. and VI.A.3. of this Permit. The notification shall include the following:
 - a. Date and time of occurrence/discovery;
 - b. Date and time reported to the Department. Include a reference number if reported to the Environmental Emergency hotline;
 - c. For spills or releases; materials, quantities, and area involved;
 - d. A sketch of the scene of the incident, showing location and approximate dimensions;
 - e. List of agencies notified;
 - f. For a prohibited waste, the generator and/or hauler and corresponding contact information;
 - g. Narrative describing how the incident occurred and actions taken by Mt. Cuba and other response personnel, as applicable, to remedy the situation;
 - h. Report of injuries and/or damage;
 - i. In the event of a complaint, name, address, and phone number of the person making the complaint, as well as the content of the complaint;
 - j. Proposal for remedial actions including a schedule for implementation; and,
 - k. Any additional information seemingly relevant or material to the incident.

B. Quarterly Reporting

Mt. Cuba shall submit quarterly reports to the SHWMS via e-mail or in hardcopy no later than the 15th day of the month following the end of the quarter (1st quarter report is due by April 15th, 2nd quarter report is due by July 15th, 3rd quarter report is due by October 15th, and 4th quarter report is due by January 15th). The quarterly reports shall summarize operations for the previous quarter and include the following information for the applicable quarter (information shall be presented in a tabular format, as appropriate, and each listed item shall be explicitly addressed to include zero quantities or currently not applicable topics):

1. Volume of off-site generated leaves received;
2. Number of rejected loads of waste, to include the date of rejection, the reason for rejection, the generator/hauler of the rejected load, and disposition of the rejected load;
3. For each occurrence, quantity of any prohibited wastes delivered (or attempted to be delivered), to include the type of prohibited waste, delivery date or attempted delivery date, generator/hauler name, disposition of prohibited waste, and date of disposition;
4. Total volume of leaves stored (on- and off-site generated leaves, collectively);
5. Total volume of all material in the process of composting;
6. Volume of finished compost produced;
7. Total volume of all finished compost stored;

8. Volume of wastes and/or litter sent for disposal, recycling, or reuse, and the date and facility where sent;
9. Summary of all notifications made to SHWMS or incidents requiring notification pursuant to Section VI.A. of this Permit, whether notification was made as required or not; and,
10. Detailed descriptions of all instances, whether intentional or accidental, of deviations from or noncompliance with this Permit.

C. Annual Reporting

1. Annual Composting Facility Report

No later than March 1st of every year, Mt. Cuba shall submit an annual report to the SHWMS. This annual report shall summarize operations for the previous calendar year and include the following information (information shall be presented in a tabular format, as appropriate, and each listed item shall be explicitly addressed to include zero quantities or currently not applicable topics):

- a. Total volume of off-site generated leaves received during the year;
 - b. Total number of loads reject during the year listed by the reason for rejection and any response actions implemented by Mt. Cuba;
 - c. Total annual quantity of prohibited wastes received listed by prohibited waste type;
 - d. Total volume of leaves stored (on- and off-site generated leaves, collectively) at the conclusion of the year;
 - e. Total volume of all material in the process of composting at the end of the year;
 - f. Total volume of finished compost produced during the year;
 - g. Total volume of all finished compost stored at the conclusion of the year;
 - h. Total annual volume of wastes and/or litter sent for disposal, recycling, or reuse to each disposal location utilized;
 - i. A summary of all emergencies and incidents that occurred at the facility during the year;
 - j. A summary of all instances, whether intentional or accidental, of deviations from or noncompliance with this Permit; and,
 - k. Written discussion of the facility's operations and processes to include any adjustments made in the process, as well as a summary for the past calendar year of the graduated temperature monitoring schedule and materials management knowledge and experience gained.
2. Annual Recycling Report
- In accordance with the Universal Recycling Law, specifically 7 *Del. C.* § 6056(1), Mt. Cuba shall submit an annual report detailing recycling activities no later than February 15th of every year. The report shall follow the reporting guidelines developed by the Department and the Recycling Public Advisory Council.

- D. Written notifications and reports shall be submitted via e-mail or regular mail, as specified above, to:

Jeff Martin
DNREC-SHWMS
89 Kings Hwy.
Dover, DE 19901
Jeffrey.Martin@Delaware.gov

VII. CLOSURE

- A. Mt. Cuba shall immediately notify the Department in writing of the estimated date of facility closure and/or the date wastes will no longer be accepted for composting.
- B. Mt. Cuba shall notify the Department in writing when closure activities are initiated, and again when closure is complete.
- C. Should Mt. Cuba cease the processing of waste into compost, within 180 days of cessation of operation, all feedstock, waste material in the process of composting, and compost product shall be recycled, re-used, or disposed of off-site. All disposal, re-use, and recycling activities undertaken in this Section must be conducted pursuant to the requirements of the DRGSW and Delaware Code.
- D. During the 180-day closure period, the total amount of leaves stored on site shall not exceed a total of 800 cubic yards. By the end of the 180-day period, all leaves shall be removed from the site.

VIII. ADDITIONAL CONDITIONS

- A. The Department retains the right to collect samples of any material at any time. The Department and Mt. Cuba retain the right to obtain split samples from each other's sampling events for separate analysis. Mt. Cuba shall bear the expenses or reimburse the Department for the cost of analysis of all samples obtained and analyzed by, or for, the Department once per quarter.
- B. Mt. Cuba shall, at least annually, notify its haulers/generators of accepted and prohibited wastes as defined in this Permit.
- C. This Permit does not relieve Mt. Cuba from complying with any other applicable Federal, State, or Local laws, regulations, or ordinances.
- D. Any violation of any Condition of this Permit, regulation promulgated by the Department, Secretary's Orders, or provision of 7 *Del. C.* Chapter 60, shall justify termination of this Permit, and implementation of appropriate enforcement action.

IX. PERMIT MODIFICATION AND RENEWAL HISTORY

- A. December 9, 2016
1. Composting Permit #SW-16/11
 - a. Initial yard waste Composting Permit limiting storage of off-site generated leaves to 400 cubic yards.
 - b. Issued for a two-year (2-yr.) period. Expiration: December 9, 2018

B. February 21, 2019

1. Composting Permit #SW-19/02

- a. First renewal of yard waste Composting Permit
- b. Issued for a five-year (5-yr.) period. Expiration: February 21, 2024.
- c. Significant modifications:
 - i. Leaf storage limit increased from 400 cubic yards of off-site generated leaves to 800 cubic yards of all leaves, regardless of generation site.
 - ii. An approximately 13% increase in area/footprint of composting facility from approximately 1.2 acres to 1.35 acres
 - iii. Authorization to implement a graduated temperature monitoring schedule.
 - iv. Updated pathogen and vector attraction reduction methodology to correspond with composting methodologies employed.

C. March 13, 2019

1. Minor revisions to clarify language of Permit conditions.



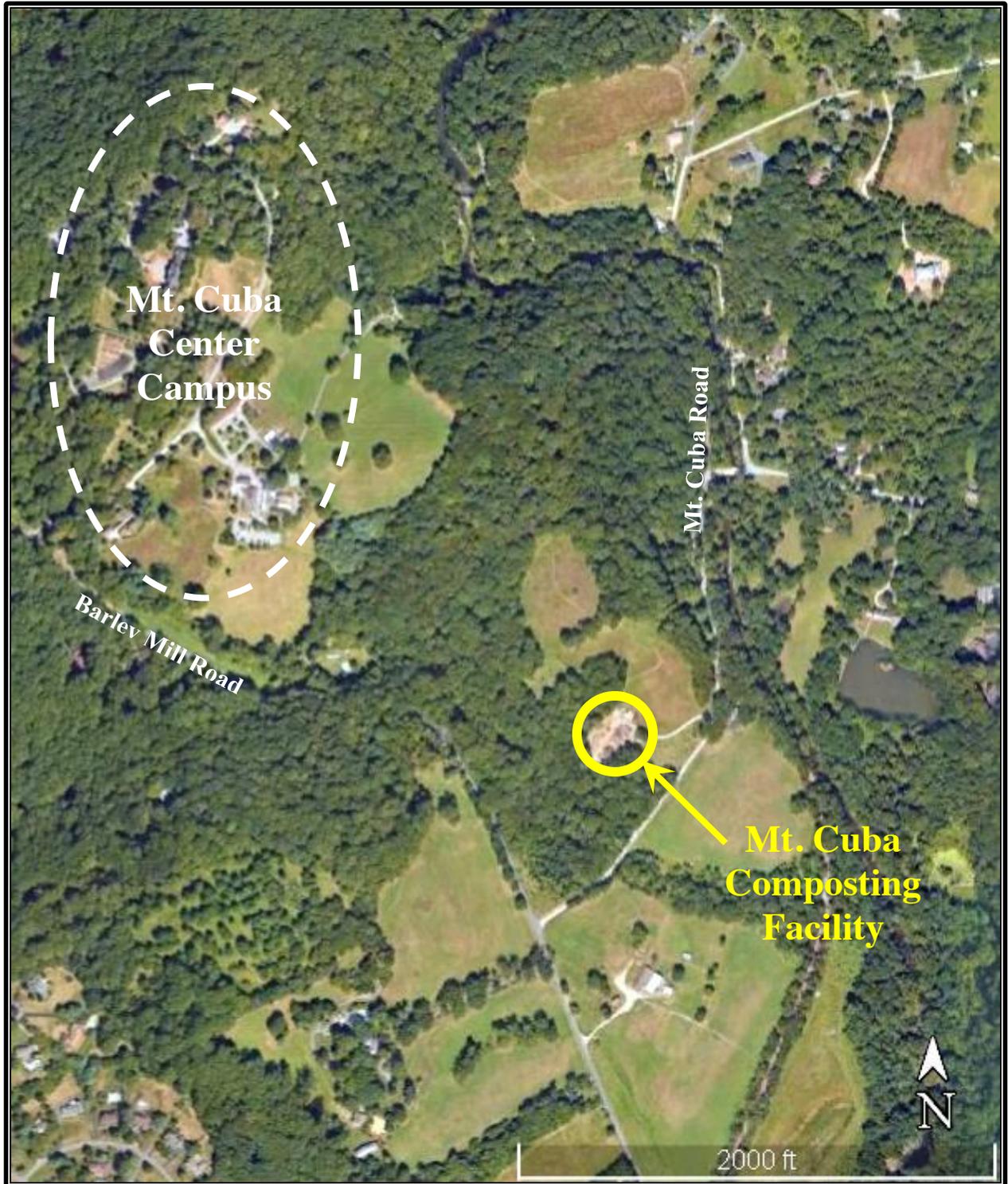
Jason W. Sunde

Environmental Program Administrator
Solid and Hazardous Waste Management Section

3-13-19

Date

Mt. Cuba Center Site Location Map



Mt. Cuba Center Composting Facility Site Plan

