

Blue, Karen

From: Cusher, Annette
Sent: Tuesday, February 20, 2018 8:55 AM
To: Blue, Karen
Subject: FW: Revised Compost Operating Plan - Eco-Vista, LLC (AFIN: 72-00144; Permit No. 0013-SCYW)
Attachments: WMEV-Compost-OpsPlan.pdf

From: Brad Fureigh [<mailto:bfureigh@promusengineering.com>]
Sent: Friday, February 16, 2018 5:13 PM
To: Cusher, Annette; Matoska, Maria
Cc: Reynolds, Jodi; Murray Sr, Tim
Subject: Revised Compost Operating Plan - Eco-Vista, LLC (AFIN: 72-00144; Permit No. 0013-SCYW)

Good afternoon Ms. Cusher,

On behalf of Eco-Vista, LLC, we are pleased to submit the attached revised Operating Plan for the Eco-Vista Compost Facility. Please let us know if you have any questions or comments.

Sincerely,

Brad N. Fureigh, PE
Principal Engineer | Promus Engineering, LLC
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AFIN: 72-00144	
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February 16, 2018

Mr. Annette Cusher, P.E.
Engineer Supervisor
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118
Via Email: cusher@adeq.state.ar.us

**RE: Revised Compost Operating Plan
Eco-Vista Type Y Composting Facility
AFIN: 72-00144; Permit No. 0013-SCYW
Promus File No: 180037**

Dear Ms. Cusher:

On behalf of our client, Eco-Vista, LLC, Promus Engineering, LLC (Promus) is pleased to submit this revised Operating Plan for the Eco-Vista Compost Facility located near Tontitown, Arkansas (the Facility). The Facility is owned and operated by Eco-Vista, LLC.

We appreciate your time and effort in reviewing this revised Operating Plan. Should you have any questions or comments, please contact me via phone at (501) 554-4547 or email at bfureigh@promusengineering.com.

Sincerely,
PROMUS ENGINEERING, LLC



Brad N. Fureigh, PE
Principal Engineer

*Distribution: Ms. Annette Cusher, ADEQ – (1)(e)
Ms. Jodi Reynolds-Coffelt, WM – (1),(e)
Mr. Tim Murray, WM – (1),(e)*

OPERATING PLAN

**Eco-Vista Compost Facility
Tontitown, Arkansas
ADEQ Permit No. 0013-SCYW
AFIN: 72-00144**

February 16, 2018
Promus Project No. 180037

Prepared for:

Eco-Vista, LLC

Prepared by:



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1. INTRODUCTION

1.1 Purpose

The purpose of this Operating Plan and Narrative is to detail the processes and procedures that allow the Eco-Vista Compost Facility (the Facility) to be in compliance with Arkansas Department of Environmental Quality (ADEQ) Solid Waste Management General Permit conditions and Regulation 22.804(8)(i) and 22.805.

2. OPERATING NARRATIVE [22.804(8)(I)]

2.1 Description of Waste to be Received [22.804(8)(i)(A)]

The Facility only accepts materials designated as yard waste or other vegetative materials such as grass clippings, leaves, shredded or chipped brush, and tree prunings. The facility will not accept Type O and Type S waste as defined by ADEQ Regulation 22, nor any other unapproved materials.

2.2 Designation of Persons Responsible for Operation, Control and Maintenance of the Facility [22.804(8)(i)(B)]

The Facility is owned by Eco-Vista, LLC and operated by Waste Management. Site operations are performed or supervised by a licensed on-site operator and/or Site Manager who has been certified in accordance with Regulation 27 during all hours of operation. The compost staging area consists of a compacted soil pad that is graded for proper drainage and suitable for heavy equipment. Customers are directed to the compost area via signage and all-weather access roads. Operations and maintenance of the facility will be conducted during normal landfill operating hours and access to the compost facility is prohibited during non-operating hours. The on-site operator and/or Site Manager have the authority and responsibility to reject unauthorized loads. It will be the responsibility of the generator to remove any unauthorized materials and dispose of the materials in accordance with Regulation 22, the facility's approved Hazardous Waste Exclusion Plan (HWEP), and solid waste disposal permit.

2.3 Methods for Controlling the Types of Waste Received [22.804(8)(i)(C)]

Incoming waste for the composting facility will enter Eco-Vista Landfill's main gate and be processed through the landfill scale entrance area. The scale house attendant will perform a visual inspection to ensure that unpermitted wastes are not commingled with acceptable yard waste and then it is weighed. The pre-acceptance procedure is the process by which a decision is made, based on the visual inspection, to reject or accept a material prior to offloading the waste at the compost facility. Pre-acceptance procedures will follow the Facility's HWEP, approved by ADEQ.

2.4 Methods of Removing and Recovering Non-Compostable Materials for Recycling or Disposal including the Removal, Storage, and Disposal of any Hazardous Wastes [22.804(8)(i)(D)]

Any non-compostable materials found during the initial inspection at the scale house or while being off-loaded at the compost area will be removed from the yard waste by facility personnel using on-site equipment, if needed. After a material is identified as non-compostable and removed, the material

is evaluated to determine recyclability. Materials that are not recyclable, not compostable, and meet the definition of a non-hazardous waste will be disposed of in either the Eco-Vista Class 1 or Class 4 Landfill. If it is determined that the material is a hazardous waste, the facility will follow the site's approved HWEF.

2.5 Methods to Minimize, Manage and Monitor Odors [22.804(8)(i)(E)]

Odors are minimized by preventing anaerobic conditions during the composting process. The waste materials will be processed and placed in windrows or piles in a timely manner. Windrows or piles are then turned as needed to aerate the composting material. Windrows or piles are periodically inspected to insure proper aeration and temperature. Furthermore, this site is located away from residential areas such that any odors should not be a nuisance.

2.6 Runoff and NPDES Storm Water Control Measures [22.804(8)(i)(F)]

The compost area is sloped and graded to prevent stormwater run-on from surrounding areas. Surface water run-off from the composting area is managed in accordance with NPDES Industrial Stormwater General Permit ARR000231.

2.7 Description of the Compost Method to be Utilized [22.804(8)(i)(G)]

The Facility is located in the northwestern section of the Eco-Vista Landfill site. Operation of the compost facility follows acceptable methods of composting which result in the aerobic biochemical degradation of the organic material received.

The composting process consists of following steps:

Preliminary Processing: Compost materials received at the Facility will be off-loaded onto the compost pad in the designated receiving area and debagged, if necessary. If the material is too bulky for composting (i.e., tree trunks, large tree limbs) it is removed and disposed of in either the Class 1 or Class 4 Landfill.

Active Composting (8 - 10 weeks): The active compost process begins by placing the yard waste into rows called windrows. The heights and widths of these rows may vary but typically the rows will be 10-15 feet wide by 5-8 feet in height and are constructed using onsite equipment such as a dozer, front-end loader, and/or excavator. The four basic needs for creating and maintaining a good composting environment include:

- ▶ **Oxygen** – Composting is an aerobic process and oxygen is provided in two ways: (1) by turning the compost with a front-end loader; and (2) by building the pile correctly, so that the surface air can diffuse into the center.

Oxygen Monitoring: The Facility personnel will check oxygen content of the windrows by smell. When moisture content samples are taken for a "squeeze" test, the Facility personnel will check the odor of the sample to see if anaerobic odors can be detected. If they are detected, that windrow will be turned promptly to dissipate the anaerobic odors and to re-introduce oxygen to the windrow.

- ▶ **Water** – Active microorganism need a moist environment; ideally, moisture content should be between 40 and 60 percent. Water will be added as needed while the windrow is turned, utilizing the water truck.

Squeeze Test: The squeeze moisture test will be used to determine the moisture level of the composting material. For sampling, the Facility personnel will grab material from the interior of the pile and the results will be interpreted as follows. A handful of material should feel damp, not dripping wet. If a handful drips without squeezing, it is too wet. If the material appears dry and crumbles after squeezing, it is too dry. If the material retains its clumped shape after squeezing without releasing excess water and dampens the hand, then it is just right for composting. With experience, the squeeze moisture test can be a reliable moisture management tool.

- ▶ **Food** – Appropriate carbon-to-nitrogen (C:N) ratios (i.e., 20:1 to 40:1) for the microbial system by combining different yard waste such as leaves and grass clippings.

Mixture Ratio: The Facility will generally mix at least one-part grass to a minimum of three-parts leaves or chips. The mixture will vary as experience grows with materials being composted.

- ▶ **Temperature** – The interior temperature of the windrow is monitored to insure the interior temperature is between 90 and 140-degrees Fahrenheit. If the temperature exceeds 140 degrees Fahrenheit then the windrow will be turned, reducing the risk of both killing microorganisms and/or spontaneous combustion. Monitor and turn the windrows when appropriate until the interior temperature drops below 70 degrees Fahrenheit and does not increase after three consecutive turnings, indicating the composting process is complete.

Temperature Monitoring: The Facility will periodically check temperatures in the composting windrow using a dial thermometer or a digital readout with a probe at 3-foot depths and random locations. Temperatures will be checked at the same location in the windrow. As a general rule, windrows should be turned at temperatures above 140-degrees Fahrenheit or if the temperature drops without cause.

Curing (11 – 13 weeks): As the composting process slows and temperatures drop, windrows will be combined into a large curing pile or windrow. The curing process provides maturity and additional stabilization to compost.

Storing: Storage is the last step in the compost process. Stored, stable compost can be piled higher than either active or curing compost. The height and width of stored compost piles are generally determined by the reach of the available loader. However, stored pile size will not be above 12 feet in height due to increased risk of spontaneous combustion. The moisture content of the finished compost will be maintained to reduce and/or eliminate dusty conditions in the storage area.

2.8 Plans for Marketing or Distribution of the Finished Compost [22.801(8)(i)(H)]

At this time, the finished compost from the Facility can be used for on-site and off-site purposes. For on-site purposes, finished compost can be used to enhance vegetative growth and limit erosion on slopes. It is anticipated that finished compost can be made available to off-site users on a limited basis.

3. OPERATIONAL REQUIREMENTS [22.805]

3.1 Common Requirements [22.805(a)]

- ▶ The Facility will be operated to reduce impacts from vectors, dust and litter. The surrounding area will be kept clean and clear to reduce habitat areas for vectors. The site has access to a water truck to reduce dust. In the event that litter becomes a concern, mobile litter control panels can be directed to catch windblown litter. The use of mobile litter fencing allows for changes in wind direction.
- ▶ As described in the previous section, the operation of the compost facility will follow acceptable methods of composting, which result in the aerobic biochemical degradation of the organic material received.
- ▶ The composting operation will be performed by a licensed on-site operator (certified in accordance with Regulation 27) during all hours of operation; access to the compost facility shall be prohibited during non-operating hours.

3.2 Type Y Operating Requirements [22.805(b)]

3.2.1 Recordkeeping and Reporting [22.808(a)]

The Facility keeps and retains records of operation which are available for inspection by the ADEQ. Records include at a minimum:

- ▶ Monitoring results of stormwater runoff and/or site discharge. Currently, the compost facility is covered by the Eco-Vista Landfill's Industrial Stormwater General Permit ARR000231. In the event the landfill ceases to operate under an NPDES permit, the compost facility will obtain the necessary NPDES permit(s);
- ▶ The General Permit for Construction and Operation of a Yard Waste Composting Facility, all approved NOI submittal documents for this General Permit, design drawings, operating plan and narrative including closure plan, modifications, annual reports, and Department correspondence;
- ▶ Facility operating records as required by Reg. 22.804(b)(1);
- ▶ Quantity, type and source of incoming waste on a monthly basis;
- ▶ Quantity of compost sold or distributed on a monthly basis;
- ▶ Quantity of residue removed for disposal, and the date and location of disposal;
- ▶ Any testing data including sampling information, chain-of-custody, and sample results that may be taken of compost products generated at the site; and
- ▶ Any other records required by Regulation 22.

3.2.2 Annual Reports [22.808(c)]

The Facility submits an annual report to the ADEQ by March 31 of each year. The Annual Report summarizes the results of Reg. 22808(a) and covers a reporting period from January through December of the previous year.

4. CONTINGENCY PLANS

4.1 Equipment Breakdown

In the case of equipment breakdowns or failures, the Facility will immediately make equipment repairs. If a prolonged breakdown occurs, back-up equipment will be borrowed or rented as necessary to prevent ceasing of composting operations.

4.2 Dust Control

Dust control at the Facility will be maintained by use of a water truck. The Facility will minimize dusting during extremely dry periods by making sure the moisture content of windrows is within an acceptable range before turning. In addition, the water truck will be used to spray water on the access roads and around the working area as per operating procedures at the Landfill.

4.3 Fire Management

Fires are a potential problem for all compost facilities. Facility personnel are trained and certified in accordance with Regulation 27. Fire extinguishers are provided at key locations at the Landfill, in equipment, and vehicles. Instructions for their use are attached to the extinguisher. If the fire cannot be controlled through the use of fire extinguishers then the water truck should be used. In the event the fire cannot be controlled by on-site means, the Tontitown Fire Department is under agreement to respond to a fire call as soon as possible.