



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Dexter R. Matthews

Director

Beverly Eaves Perdue  
Governor

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Secretary

July 27, 2009

Mr. Frank Franciosi, Manager  
Composting Department  
Novozymes North America, Inc.  
P.O Box 576  
Franklinton, NC 27525-0576

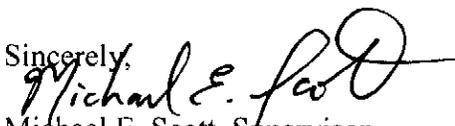
**Subject:** Novozymes North America, Inc.  
A Large Type-3 Solid Waste Composting Facility  
Permit Application And Operations Manual  
Facility Permit No.: SWC-35-04

Dear Mr. Franciosi:

The Division of Waste Management Solid Waste Section has completed its technical review of the subject Permit Application and Operations Manual. A copy of the comments resulting from this review is attached for your reference. These comments are also being sent to your engineer, J.B. Clauss, P.E., by copy of this letter. A revised Permit Application and Operations Manual that incorporate responses to these comments should be submitted for our review and approval as soon as possible. Providing thorough and complete responses to these comments in a timely manner is necessary to avoid delays of the Division's decision on the Permit Application.

If you or your engineer have any question or need assistance in resolving the technical review issues, please contact Mr. Zi-Qiang Chen, PhD, at (919)-508-8523. Also, you may contact me at (919)-508-8508.

Sincerely,

  
Michael E. Scott, Supervisor  
Composting & Land Application Branch

ZQC:dr

Attachment (all cc's)

cc: J.B. Clauss, P.E., Novozymes, Inc. Franklinton, NC 28328  
Mary Whaley, NCDWM Field Operations Branch  
Zi-Qiang Chen, Ph.D., Environmental Engineer II  
DWM/SWS/CLA/PERMIT

**NOVOZYMES NORTH AMERICA, INC.**

**Technical Review Comments  
For A Large Type-3 Solid Waste Composting Facility Permit Application  
And  
The Facility's Operations and Maintenance Manual  
Facility Permit No.: SWC-35-04**

July 27, 2009

**NOTE:** Please provide a response to all of the comments on a "comment for comment" basis. Where appropriate, add or revise narrative in the text of both the Permit Application (§) and the Facility's Operations Manual (§§) that addresses the issues discussed in the comments. In addition, the comments and responses may be included as a part of the revised Permit Application and Operations Manual (e.g. in an appendix).

**I. General**

1. A composting permit application is a stand-alone document that deals with broad issues that the facility needs to address, which are more than what an operations manual can delineate. The latter emphasizes the operational protocols for implementing the tasks and goals set forth by the Permit Application. Therefore, provide the facility's Permit Application.
2. Both the Permit Application and the Operations Manual are considered engineering documents; therefore, the front page or cover of the documents, as well as the attached engineering drawing sheets should be signed, dated and sealed by an engineer licensed to practice in North Carolina.
3. Provide a list, for example, as an appendix, of all acronyms used in the permit application and operational manual, such as TSS, BMR, USCC-STA, MSDS, NZNA and NA, as well as in all the appendices, such as WEF, LGU, PReh, Jeer, LGU, SSMD, FRFR, SAST, ISO, DDD, LPJ, FIF, AKM, CLAN, IMAP, among others.
4. Rule .1401 (b) stipulates that plans for a large type-3 composting facility shall be submitted in accordance with Rule .0202(a)(3) and that a minimum of four sets of application and drawing plans shall be submitted.
5. In accordance with NCGS 130A-295.8(c), a large composting facility shall pay a fee of \$1,250 for its permit renewal.

## II. Permit Application Requirements

1. 15A NCAC 13B .1405 (b) (5) stipulates that an application for a composting permit shall provide materials, such as:
  - a). An updated aerial photograph or scaled drawing to show the entire property; location of all homes, wells, road, buildings; and land use and zoning information.
  - b). Confirm that the site and design comply with Rule .1404.
  - c). Site plan(s) to show the location and elevation of dikes, trenches, water ways and control devices, local roads, monitoring wells, floodplains and wetlands etc.
  - d). Name, address, contacting phone number of the operator/operation.
  - e). Copies of all applicable and necessary local, state, and federal permits and approvals.
2. Mark Novozymes' location on the aerial photo, show the adjacent (within the ¼-mile radiance) surroundings, and add the legend to denote the *100-year* flood plain and other major hydro-geological features on the map. Confirm that the facility is not located within a *100-year* flood plain.
3. Page 2: Provide an updated local zoning letter from Franklin County Planning & Development Department.
4. Provide the information of how the facility's composting pad, and storm/leachate retention ponds are designed and constructed.
5. Provide an update and a copy of Novozymes' application or permit for NC Division of Water Quality's stormwater permit.
6. Provide analytical results, such as nitrate and metal levels, of the groundwater sample(s) from the groundwater monitoring well(s) if available.
7. Page 8: Clarify if there are seasonal variations in the incoming feedstocks in the facility. If so, provide a chart to show the monthly or seasonal variations of the incoming feedstocks.
8. Page 9: Clarify how and how often monitoring equipment, such as temperature and oxygen probes, are calibrated.
9. Page 11: Specify how the facility handles, removes or disposes, household hazardous wastes from the waste stream, as required by .1405(b)(6)(E).
10. Pages 12 & 13: Provide a typical mixing recipe (or the ingredients ratio) for the feedstocks listed on Page 8 and show how Novozymes uses the recipe(s) to process multiple feedstocks.

11. Provide a narrative to specify how the facility complies with .1405(b)(6)(F) when operating during adverse weather conditions.
12. Page 14: Specify how the starting time of the process to further reduce pathogens (PFRP) is identified and maintained in a daily operation. Provide a typical Novozyme schedule for furnishing additional moisture to windrows from either leachate pond, stormwater pond, and/or irrigation water source.
13. Page 15: Provide a detailed discussion in this section to address how to minimize offensive odor in the composting operation and at the property boundary and what kinds of corrective actions would be taken if an offensive odor crosses the property boundary.
14. Page 16 and Drawing: Mark the curing area(s) on the drawing and provide the facility's curing capacity.
15. Page 17 and Drawing: Add more narratives about the design of the two (2) "Finished Product" pads and their geometric dimensions. Provide a cross-section drawing of the pads.
16. How often does the facility conduct its major equipment maintenance and/or overhaul? What is the typical length of time that an overhaul would take?