



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE:								
Lined MSWLF	LCID	YW	Transfer	Compost	<input checked="" type="checkbox"/>	SLAS		
Closed MSWLF	HHW	White goods	Incin	T&P		FIRM		
CDLF	Tire T&P / Collection	Tire Monofill	Industrial Landfill	DEMO		SDTF		

COUNTY: Chatham
 PERMIT NO.: 19-05
 FILE TYPE: Compliance

Date of Audit: April 6, 2010

Date of Last Audit: June 18, 2009

FACILITY NAME AND ADDRESS:

Brooks Farm Composting Facility
 1195 Beal Road
 Goldston, North Carolina 27252

GPS COORDINATES: N: 35.5470 E: -079.3697

FACILITY CONTACT NAME AND PHONE NUMBER:

Dean Brooks: (919) 837-5914; email: brooksc@wildblue.net
 Alan Brooks: (919) 842-0010
 Facsimile: (919) 837-5097

FACILITY CONTACT ADDRESS:

(same)

AUDIT PARTICIPANTS:

Robert Hearn, Solid Waste Section
 Alan Brooks, Site Manager, Brooks Farm
 Dean Brooks, Owner/Operator, Brooks Farm
 Amy Brooks, Office Manager, Brooks Farm

STATUS OF PERMIT:

Permit Issued: September 22, 1999
 Permit Amended (renewal): August 2, 2004
 Permit Amended (renewal): January 22, 2010
 Permit Expires: January 22, 2015

PURPOSE OF AUDIT:

Comprehensive audit

NOTICE OF VIOLATION:

(none)

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$5,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. If the violation(s) noted here continue, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

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STATUS OF PAST NOTED VIOLATIONS:

(none)

AREAS OF CONCERN AND COMMENTS:

1. Inspected composting operations accompanied by Mr. Alan Brooks. Brooks Farm Composting Facility is permitted as a Large Type 3 composting facility. This facility accepts numerous wastes as compost feedstocks and produces compost and soil mixes.

Operational phases at this facility include receiving, bulking and incorporation, high-rate-decomposition (active composting), stabilization, refining, curing, and quality control. Facility composting windrow operations are conducted in two areas of the site based on the type of waste being composted: eggshell/food ('eggshell') waste and bulked material ('bulking pit') waste. These waste types are carefully managed upon receipt at the facility to minimize odors, vectors and overheating prior to being incorporated into windrows.

Other, more stable feedstock waste materials, including leaves, sawdust, animal bedding, corrugated cardboard, and processed yard waste ('mulch') are stockpiled separately until utilized for bulking less-stable wastes in composting windrows or the bulk-mixing ('bulking') pit.

2. Observed liquid waste delivery and processing in the 'bulking pit' area. Waste was placed directly into the concrete bulking pit and bulked with appropriate organic feedstocks to absorb liquids and produce a waste material that can be managed in the 'bulking pit' windrow area. Observed that bulked waste material from the bulking pit is placed on a concrete pad adjacent to the pit and allowed to drain for a period of several hours or days as needed. Runoff from this pit drains into large, concrete settling vaults, and is eventually reused within the mixing pit. Observed low liquid levels in the settling vaults.

3. Observed that a load of eggshell waste was immediately placed in the 'eggshell windrow' area upon receipt at the facility; this waste was immediately covered with compost to control odors and vectors and absorb runoff. Also, a load of food waste delivered to the site was observed to be placed directly in the food-waste-processing area adjacent to the windrows; food waste is covered with leaves and/or compost for several hours or days as needed to allow the waste to "soften" prior to being incorporated into windrows.

4. Mr. Brooks explained that following placement of these wastes in the windrow area, windrows are constructed using a front-end loader to mix the waste with compost and various feedstock 'recipes' to bulk the waste material and to further control odors and vectors. Windrows are periodically turned to homogenize composting wastes and to facilitate thorough heating of the product as required to thoroughly compost and achieve pathogen destruction and vector attraction reduction. The windrows are managed to maintain compost temperatures above 131° F for fifteen days; during this time the windrows are turned a minimum of five times.

5. Mr. Brooks explained that, to further stabilize the composting waste, windrows are continually monitored for desired temperature and moisture levels, and are managed by turning and addition of moisture as needed to achieve thorough composting of the waste materials. On average, the about 130 days are needed for thorough composting of an 'eggshell' windrow and about 110 to 140 days for thorough composting of a 'bulking pit' windrow. A minimal amount of runoff was observed in the windrow areas; drainage ways in the windrow areas were found to adequately channel runoff to the drainage basins in the respective windrow areas.

Compost windrows across the site were observed to be in good shape. Windrows were found to be properly located and oriented and of appropriate size, with adequate spacing between windrows for operation of equipment. Windrows appear to be frequently turned and aerated and generally well-maintained; observed windrow-turning operations in the 'bulking pit windrow' area. Observed only a minimal amount of runoff from most windrows.

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6. Observed screening of compost material prior to placement in the curing piles. Three curing piles exist on site to further stabilize the compost and dissipate odors. Minimal runoff was observed draining from the curing piles.
 7. The facility utilizes Green Mountain Technologies computer software and monitoring equipment for temperature and moisture monitoring and of compost windrows. Inspected computer records of temperatures and holding times for windrows in the 'eggshell' and 'bulking pit' windrow areas. Observed that elevated temperatures are achieved and recorded as required for each composting windrow. Records for processes to further reduce pathogens (PFRP) and vector attraction-reduction (VAR) as maintained by this system were also found to be in order.
 8. Inspected waste and feedstock analysis reports and compost analysis reports and found them to be present and in order. The facility permit, operations plan, and safety plan were also present and in order.
 9. Feedstocks currently accepted for composting at this facility include: eggshell waste, dairy waste, brewer's yeast/water, food waste, yard waste (mulch), leaves, sawdust/shavings, animal bedding, cardboard, grease trap waste, PEG wastewater, sugar water, and glycerin/oil. Observed receipt and proper management of eggshell waste and food waste loads received at the facility at the time of inspection.
 10. Observed minimal runoff at the site. A perimeter ditch around the composting area functions to capture runoff from the composting area and direct it to the containment pond. Site grading and interior drainage-ways function to divert surface runoff from compost windrows, compost curing, and compost storage areas. Two silt basins exist within the composting operations area to manage leachate and storm-water runoff from the composting operations area and allow for settling of silt and other solids contained in runoff; wood-mulch barriers within the basins serve to partially filter liquid passing through the basins. Liquid moving from the basins is directed to the on-site containment pond.
 11. Leachate is contained on site by a large containment pond. The NPDES Stormwater Permit for Brooks Farm Composting Facility was rescinded on April 14, 2009 by the NCDENR Division of Water Quality, thus no discharge of water from the containment pond is allowed at this time. Brooks Farm (as 'Brooks Contractor') has a "deemed-permitted" Pump-and-Haul system from the Division of Water Quality for removal of water from the retention pond, and has been granted approval from the Town of Siler City to discharge wastewater at the Siler City Wastewater Treatment Plant.
- Mr. Brooks explained that water from the containment pond is currently managed by application to the composting windrows as needed to maintain moisture levels desirable to achieve through composting of windrowed material.
12. The entrance to the facility property is monitored around-the-clock by facility staff that work and reside on the property. The entrance to the composting area can be secured by blocking with heavy equipment in the event that no operator is present on site.
 13. Observed that the facility access road and interior service roads are maintained with gravel cover and are graded to manage runoff. Also observed that water was applied to facility roads for dust suppression.
 14. Observed that adequate space exists between windrows and around curing piles to allow for access by equipment in case of emergency. Heavy equipment, irrigation equipment, and fire-suppression materials are present on site for use in fighting fires.
 15. Observed signs in place at the entrance to the facility stating hours of operation and the facility-contact telephone number. Also observed sign at scale house noting wastes prohibited from acceptance at the facility. The facility permit number also should be posted on these signs; take action to post the facility permit number, as required.

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16. Hours of operation for Brooks Farm Composting Facility are Monday through Friday from 7:00 a.m. until 5:00 p.m., and from 8:00 a.m. until 12:00 p.m. on Saturday.

Please contact me if you have any questions or concerns regarding this audit report.



Phone: (919) 508-8525

Robert Hearn

Waste Management Specialist

Regional Representative

cc: Mark Poindexter, Field Operations Branch Supervisor
Jason Watkins, Central District Supervisor
Michael Williams, Compost & Land Application Branch Supervisor
Shawn McKee, Compliance officer

Delivered on: 4/16/10	by		Hand delivery	X	US Mail	Certified No.
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