NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

January 22, 2010

Mr. Dean Brooks
Brooks Compost Facility
1195 Beal Rd
Goldston, NC 27252

Re: Solid Waste Compost Permit SWC-19-05

Dear Mr. Brooks:

Enclosed is your permit to operate a Large, Type 3 Solid Waste Compost Facility in Goldston, North Carolina. Please carefully read all permit conditions. The operation manual submitted with your application has been incorporated into your permit. Your permit number is SWC-19-05. The permit expiration date is January 22, 2015.

Mr. Robert Hearn, Environmental Senior Specialist, will be responsible for facility inspections. Mr. Hearn can be contacted at 919-508-8533. If you have any questions please feel free to contact our staff engineer Mr. Zi-Qiang Chen, Ph.D. at 919-508-8523, or myself at 919-508-8508.

Sincerely,

Michael E. Scott, Supervisor
Composting & Land Application Branch

cc: Robert Hearn, Environmental Senior Specialist, DWM
Zi-Qiang Chen, Ph.D., Composting & Land Application Branch
Central File, Solid Waste Section, Division of Waste Management

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-508-8400 \ FAX: 919-733-4810 \ Internet: www.wastenotnc.org

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STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER
RALEIGH, N.C. 27699

Brooks Compost Facility

is hereby issued a permit to operate a

LARGE, TYPE 3 SOLID WASTE COMPOST FACILITY

at 1195 Beal Road in Chatham County

Permit Number: SWC-19-05

in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit.

1/22/10
Date

Michael E. Scott, Branch Head
Solid Waste Section

Permit Conditions:

1. Operation and maintenance of this facility shall be in accordance with the Solid Waste Compost Rules (15A NCAC 13B, Section .1400), the Permit Application and the Operation and Maintenance Manual submitted with the permit application, and these permit conditions. Failure to comply may result in compliance actions or permit revocation by the Division of Waste Management.

2. This facility shall be operated in such a manner that erosion and runoff from the site shall be controlled. Any leachate generated at the facility and any runoff from the facility shall be managed in such a manner that ground or surface water quality will not be adversely affected. The facility shall be maintained to prevent the accumulation of stormwater or leachate on travel areas or active composting sites.

3. An appropriate Division of Water Quality permit for managing any stormwater or wastewater on the facility shall be maintained.

4. Only materials specifically listed in the permit application may be managed at this facility. Before additional materials may be added, there must be adequate testing and prior approval by the Division of Waste Management in writing.

5. All compost produced at the facility shall meet the requirements of Rule .1407 of the Solid Waste Compost Rules and the permit application.

6. Testing and reporting shall be conducted in accordance with the requirements of Rule .1408 and the permit application. An annual report of facility activities for the fiscal year July 1 to June 30 shall be submitted to the Division by August 1 of each year on forms provided by the Division. This report shall include the amount of materials composted in tons.

7. The compost operation and the compost pad shall be operated and maintained with sufficient dust control measures to minimize airborne emissions and to prevent dust from becoming a nuisance or safety hazard.

8. Windrow data shall be maintained in writing as required to document temperatures, moisture levels and turning intervals. Bulk density and C:N calculations shall be reviewed no less than every 14 days.

9. Brooks Compost Facility shall ensure that windrow moisture levels in the compost windrows are maintained in the 40-60% range for newly created windrows and compost windrows within PFRP.

10. Windrow dimensions for active composting shall be limited to a maximum of 7' high x 20' wide unless otherwise approved by the Division.

11. Windrow turning shall not occur without consulting weather forecasts for favorable conditions including temperature, wind direction, temperature inversions, and precipitation.

12. The odor management plan shall be followed to minimize odors at the facility boundary. Upon receipt of a facility complaint the facility operator shall investigate and take action as necessary to minimize the cause of the complaint. A copy of all complaints regarding this facility shall be maintained for two years including the operator's actions taken to resolve the complaints.

13. Feedstocks shall not be received that are in an anaerobic state.

14. The facility shall be operated in a manner that reduces the potential for vector attraction.

15. Stockpiling of finished product shall be limited to a height of 60'.

16. The facility operational capacity for this permit shall be limited to 75,000 tons of feedstocks per year received for composting.

17. This permit shall expire on January 22, 2015. Changes in ownership, increase in facility capacity, or receiving feed stocks not identified in the permit application shall require a permit modification.

EcoLogic

3808 Clifton Road • Greensboro, NC 27407
(336) 632-4441 • Fax 632-4445
www.ecologic-nc.com

January 13, 2010

RECEIVED JAN 14 2010 SOLID WASTE SECT

Michael Scott
Solid Waste Composting and Land Applications Branch
NCDENR, Div. of Waste Management
401 Oberlin Rd., Suite 150
Raleigh, NC 27605

RE: Permit Renewal Application, SWC-19-05
Brooks Farm Compost Facility, Goldston, NC

Dear Michael:

On behalf of our client Brooks Contractor, EcoLogic is pleased to submit an updated O&M manual and revised drawings for renewal of permit SWC-19-05 to operate a large, Type 3 solid waste compost facility. In addition, we are submitting hard copies of permit renewal documents requested by you that were previously submitted electronically.

Four (4) sets of the renewal application documents are enclosed. The permit renewal fee of $1,250 will be paid by the owner under separate cover.

If you have any questions concerning this submittal or the enclosures, please call or e-mail (mark@ecologic-nc.com) at your earliest convenience.

Cordially,

EcoLogic Associates, P.C.

Mark Taylor, PE, CPESC
Project Consultant

C: Amy Brooks, Brooks Contractor, Inc. (with enclosures)

Enclosures: Operations & Maintenance Manual (Rev. Dec. 2009)
Aerial Photographs (1"=1000' and 1"=2000')
Zoning Letter from Chatham County Zoning Administrator
Report of Soils Investigation by Soil, Water & Environment Group
Stormwater and Wastewater Regulatory Status Letters (3)

Printed on recycled paper.

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September 16, 2009

Michael Scott
Solid Waste Composting and Land Applications Branch
NCDENR, Div. of Waste Management
401 Oberlin Rd., Suite 150
Raleigh, NC 27605

RE: Permit Renewal Application, SWC-19-05
Brooks Farm Compost Facility, Goldston, NC

Dear Michael:

On behalf of Brooks Contractor, and in response to your letter dated August 12, 2009 for the referenced project, EcoLogic Associates, P.C. is pleased to submit the following responses and revised drawings.

Addressing your comments in order, we offer the following responses. In addition, the revised components are transmitted herewith for your review.

I. General

I.1. The revised documents are sealed as requested.

I.2. The revised O&M manual (enclosed) now has a table of contents.

I.3. An executive summary of changes to the O&M manual is enclosed. There was no past permit application to reference changes to.

I.4. Four (4) sets of renewal application documents will be provided when approval is indicated.

I.5. The permit renewal fee of $1,250 will be paid by the owner under separate cover.

II. Permit Application

Disclaimer: The cited rule (15A NCAC 13B .1405(b)) concerns information required for an application for a Permit to Construct a large, Type 3 solid waste compost facility. Brooks Farm does not require a Permit to Construct, but rather a 5-year Permit to Operate. Consultation with

your office indicates that you desire to update the permit file with certain site information at the time of renewal of the Permit to Operate. As such, the following information is provided to facilitate that need, not as an acknowledgement of a regulatory need to reauthorize the facility's right to exist or reaffirm the site's suitability for the permitted purpose.

II.1.a). An updated aerial photograph, obtained from the Chatham County GIS website, is enclosed. The aerial photo is provided at two scales (1"=1,000' and 1"=2,000').

II.1.b). To the best of the owner's and the undersigned's knowledge, the site and facility design comply with Rule 15A NCAC 13B .1404.

II.1.c). The Compost Site Plan, Drawing D-2, in Appendix A of the O&M Manual includes the requested information, subject to availability.

II.1.d). A soil evaluation is scheduled to be conducted by a soil scientist to characterize the soils in the waste receipt and storage, active composting and curing areas and confirm the absence of the seasonal high water table within 24 inches of the ground surface. The resulting report will be transmitted to your office as soon as it is available.

II.1.e). There are no local, state, or federal permits to transmit beyond the wastewater approvals described in the next item.

II.2. The facility's stormwater permit was rescinded on April 14, 2009 (see enclosed NCDWQ SPU letter of that date). The facility is currently deemed permitted by DWQ to transfer wastewater to the Town of Siler City's POTW under a pump and haul arrangement (see enclosed NCDWQ APS letter dated March 10, 2009). A copy of the Siler City flow acceptance letter dated January 30, 2009 is also enclosed.

II.3. A current zoning letter from the Chatham County Zoning Administrator is enclosed.

II.4. Brooks' operators estimate the facility design capacity as approximately 69,000 tons per year based on average windrow size and the current facility layout.

II.5. <u>Monitoring and Maintenance of Clay Pad</u>: The natural clay soils that cover the facility site serve as the base, or "pad", on which feedstock mixing, active composting, and curing occur. Heavy traffic routes, such as on-site access roads, receive a "paved" surface consisting of crushed aggregate to improve trafficability and protect the base from disturbance. Process areas are alternately covered with organic materials and exposed as windrows or stockpiles are removed. Upon removal of an organic layer, the exposed clay is visually inspected for defects such as large cracks (> 1/2"), gouges, or other obvious damage. If no damages are observed, the clay surface is scraped lightly and flat and recompacted with rubber-tired vehicles to maintain a smooth, water-shedding surface. Large cracks, gouges and the like are documented by recording GPS coordinates in Windrow Manager 2.0 software. Repair of damaged clay consists of filling the defect with granular sodium bentonite.

II.6. Refer to the enclosed aerial photo referenced in response II.1.a). The facility is not located within the 100-year floodplain.

II.7. There is no engineering design documentation or as-built drawing for the facility's stormwater retention pond. The following description of pond planning and construction is offered by the Owner:

Chatham County Soil and Water authorities determined that the pond location was ideal for our purpose, as it was a natural low spot on the site. Therefore, upon a preliminary soil investigation, Chatham County Soil and Water approved the site as suitable for building a containment pond. Little excavation was needed to remove existing topsoil and other unsuitable soil. The dam was installed as well as a clay liner. All labor and equipment was provided by Judy D. Brooks Contractor, Inc. An erosion permit was issued by the State of North Carolina, and an on-site inspection was performed. Dam construction began in 2001. Suitable packing clay was located about 1/3 mile from the permitted area on Brooks' farm, and was suitable for the dam construction. A pan was used to bring the clay soil to the designated site, and a bulldozer was used to grade the clay to 6" layers. A vibratory sheepsfoot roller was used to compact the layers (see pictures). The clay was installed with the proper moisture content. The bottom and sides of the containment pond were also lined with two (2) 6-8" lifts of properly compacted clay. All steep slopes were covered with a layer of 4" or larger flat rock for erosion control.

II.8. Refer to the response to II.5 above.

III. Operations & Maintenance Manual

III.1. See enclosed process flow diagram.

III.2. Refer to Section III.A. on Page 6 of the enclosed O&M Manual.

III.3. Refer to Section III.A. on Page 6 of the enclosed O&M Manual.

III.4. Refer to Section III.B. on Page 9 of the enclosed O&M Manual.

III.5. Refer to Section III.C. on Page 10 of the enclosed O&M Manual.

III.6. Refer to Section III.C.4. on Page 14 of the enclosed O&M Manual.

III.7. Refer to Section IV. on Page 24 of the enclosed O&M Manual.

III.8. Refer to Section III.G. on Page 18 of the enclosed O&M Manual.

III.9. Refer to Section III.J. on Page 20 of the enclosed O&M Manual.

If you have any questions concerning this response or the enclosures, please call or e-mail (mark@ecologic-nc.com) at your earliest convenience.

Cordially,

EcoLogic Associates, P.C.

Mark Taylor, PE, CPESC
Project Consultant

C: Amy Brooks, Brooks Contractor, Inc. (with enclosures)

Enclosures: Operations & Maintenance Manual (Rev. Sept 2009)
Executive Summary of Changes to O&M Manual
Aerial Photographs (1"=1000' and 1"=2000')
Stormwater and Wastewater Status Letters (3)
Zoning Letter from Chatham County Zoning Administrator
Process Flow Diagram

CENTRAL FILE

NCDENR

North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

October 20, 2009

Mr. Dean Brooks, Owner and Operations Manager
Brooks Farm Compost Facility
1195 Beal Road, Goldston, NC 27252

Subject: Additional Technical Comments for Brooks Farm
A Large Type-3 Solid Waste Composting Facility
Permit Renewal Application and
Operations and Maintenance Manual
Facility Permit No.: SWC-19-05

Dear Mr. Brooks:

The Division of Waste Management Solid Waste Section has completed its additional round of technical review of the subject Permit Renewal Application and Operations Manual. A copy of the additional comments resulting from this review is attached for your reference. These comments are also being sent to your engineer, EcoLogic Associates, P.C., 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

/QC:dr

Attachment (all cc's)

cc: Mark Taylor, P.E., EcoLogic Associates, P.C., 3808 Clifton Rd, Greensboro, NC 27407
Zi-Qiang Chen, Ph.D., Environmental Engineer II
DWM/SWS/CLA/PERMIT

BROOKS FARM

Additional Technical Review Comments
For A Large Type-3 Solid Waste Composting Facility
Permit Renewal Application and
Operations and Maintenance Manual
Facility Permit No.: SWC-19-05

October 20, 2009

II. Permit Application (§)

5 Page 2, §-II: Add some narratives of the post-construction monitoring and maintenance plan for the facility's active composting and curing clay pads.

Additional Comment II-5: Insert the Response to the body of the text of the Permit Application and O&M Manual accordingly.

7 Page 2, §-II: Provide the latest engineering design and all *as-built* drawings of the facility's stormwater / leachate retention pond(s).

Additional Comment II-7: Insert the Response to the body of the text of the Permit Application and O&M Manual accordingly.

III. Operations & Maintenance Manual (§§)

5 Page 9, §§-III-C: Provide a typical mixing recipe (or the ingredients ratio) for the feedstocks listed in the facility's incoming feedstocks and demonstrate how the facility uses the recipes to process multiple incoming feedstocks.

Additional Comment III-5: Define the terms of "*sludge*" and "*solidification basin material*" used in the September 16, 2009 submittal of Technical Responses.

RECEIVED
JAN 14 2010
SOLID WASTE

OPERATIONS & MAINTENANCE MANUAL

BROOKS FARM COMPOST FACILITY

1195 Beal Rd.
Goldston, NC 27252

APPROVED
MES 1/22/10

PERMIT NO. SWC-19-05

Revised December 2009

NORTH CAROLINA PROFESSIONAL SEAL 10975 ENGINEER MARK A. TAYLOR

Prepared by

ECOLOGIC

EcoLogic Associates, P.C.
3808 Clifton Road
Greensboro, NC 27407
(336) 632-4441

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I. Facility Overview

FACILITY: Brooks Farm Compost Facility

1195 Beal Road

Goldston, NC 27252

Phone: (919) 837-5914 – Office/Scale House

Fax: (919) 837-5097

PERMIT NUMBER: SWC-19-05 Solid Waste Compost Permit

OWNER/OPERATOR: Dean Brooks (919) 842-0006 - Mobile

EMERGENCY CONTACTS:

Primary:	Dean Brooks	(see numbers above)
First Alternate:	Judy Brooks	(919) 837-5261 – Home
		(919) 842-0014 - Mobile
Second Alternate:	Alan Brooks	(919) 837-2850 – Home
		(919) 842-0010 - Mobile

Emergency Services: 911

SITE PERSONNEL:

Facility Operator/Site Manager - Manages all operations and directs work efforts

Scale Operator- Weighs incoming waste materials/ outgoing materials

Truck Drivers - Haul feedstocks and finished products

Loader Operator - Constructs windrows, loads finished product, operates trommel screen

Compost Turner Operator - Turns windrows, monitors compost piles

Equipment Operator – Operates heavy equipment and off-road trucks

II. Operations Overview

Brooks Farm Compost Facility is a Large Type 3 Solid Waste Compost Facility located on a 375-acre farm in Goldston, Chatham County, North Carolina. The area used for composting is approximately 25 acres in size (see Drawing D-2 - Compost Site Plan in Appendix A). Trucking and sales are handled through Brooks Contractor, a separate business owned and operated by Judy and Dean Brooks. The facility recycles about 70,000 tons of organic materials per year, materials that would otherwise consume a considerable volume of North Carolina's limited landfill capacity. Gardeners and landscapers throughout the state and in neighboring states use Brooks' products.

A. Hours of Operation

The facility maintains scheduled hours of operation as follows:

Monday through Friday	7:00 am - 5:00 pm
Saturday	8:00 am - 12:00 pm
Sunday	Closed

Extended operating hours are occasionally offered as needed if no neighbor concerns are likely.

B. Receiving

All incoming materials for composting must have prior consent to unload. Each incoming truck must cross scales, weighing in and out. Any vehicle entering the facility that does not do so will be immediately stopped and will not be allowed to unload its contents. Before haulers are authorized for unloading, they are instructed in site operations, site safety, emergency procedures, and the location of unloading stations and/or areas designated for their feedstock. Brooks Contractor also hauls a significant amount of the materials processed at the site. All unknown vehicles that enter the facility and cross the scales are stopped and identified, with the hauler name, vehicle type and size, and type of waste materials noted. The driver is then directed to the appropriate off-loading area (i.e. bulking material storage area, feedstock storage area, etc.). For new customers, a facility employee inspects

materials as they are being off-loaded. The visual inspection ensures that received materials are compatible with the intent and goals of the facility and the solid waste permit (see "Acceptable Materials", Section III. A). Those materials not acceptable at the facility are handled as outlined in Section III. B.

C. High Rate Decomposition

The first stage of composting is accomplished in open, aerated windrows. The construction and maintenance of the windrows shall be as described in Section III. C. The windrows are constructed in the designated areas (see Drawing D-2). The windrows are constructed with varied feedstocks (variable C:N ratios) in combinations designed to assure a high quality, marketable compost product. Temperature and percent moisture are monitored and turning is employed as needed to maintain aerobic conditions and suitable elevated temperatures to expedite composting (thermophilic decomposition), reduce odors, and reduce pathogens. This stage should take about 4 to 6 weeks.

D. Stabilization

The stabilizing of fresh compost to produce mature compost will be provided for as dictated by market demands. Stabilization is the gradual reduction of microbial activity in the presence of moisture and aeration, and is accomplished by continuing the aerated windrow composting process under the same controlled conditions as in the first stage. Thus, stabilization will be performed in the original windrows. The degree of stabilization achieved may also depend on demand versus production rates. The stabilization stage should take at least an additional 8 to 10 weeks.

E. Refining, Curing, and Quality Control

The compost will be refined by screening to remove oversize particles and foreign material and improve the consistency and quality of the final product. Screening is normally done near the finished product processing area as the compost is transferred from the windrows to the curing piles (see Drawing D-2). Oversize material ("overs") is stored in piles, then run back through the composting process. Foreign matter is disposed of in an appropriate permitted off-site facility. Curing is

accomplished in the curing piles as needed to satisfy market demands. Quality control will consist of regular measurement of temperature and periodic manual/visual inspection for particle size, percent moisture and the presence of foreign material. Compost samples are taken every six months or every 20,000 tons (whichever comes first) as outlined in Section III.F. These samples are used to verify that the product meets the requirements listed in Table 3-1.

F. Storage and Load-Out

In the storage and load-out area, market-ready compost will be stockpiled until sale. The storage and load-out area shall be maintained to facilitate stormwater drainage and allow easy access and movement of equipment for loading.

The finished product is marketed in bulk for landscaping projects. Additionally, the compost is blended with other materials to produce custom topsoil blends and marketed in bulk form. These blending materials include items such as clay, pine bark, permatil, sand, and coarse sandrock. An example information sheet as shown in Appendix C is given to each person who purchases a load.

If the finished material fails to meet regulatory standards or is unmarketable, it may be applied to pasture or farmland, but only if it meets Grade B compost standards and only with approval of the NC Division of Waste Management. Otherwise, it may be composted again to meet pathogen requirements, or disposed of in a properly permitted landfill.

G. Product Use and Marketability

It is the intent of the facility to develop products that have the attributes desired for use as a soil amendment in landscaping projects, parks, golf courses, highway right-of-ways and beautification projects. In addition, commercial landscapers and private citizens are able to purchase the compost directly. The established market contacts of Brooks Contractor, a landscape materials supplier owned by the facility's owners, are instrumental in developing and sustaining markets for the finished products.

III. Operating Procedures

The purpose of this section is to establish the standard operating procedures for managing materials and producing compost at the facility. These procedures may be refined or modified as experience is gained with the facility and the process. Refer to the attached process flow diagram in Appendix D.

A. Acceptable Materials

The facility is designed as a Type 3 Solid Waste Compost Facility. Acceptable materials include the following listed wastes and other biodegradable organic wastes determined to be suitable for the composting process and acceptable to NC DENR.

- Eggshells/hatchery waste
- Food processing waste (chicken batter, liquid dairy waste, cannery waste)
- Food waste, produce (pre- and post-consumer)
- Spoiled animal feed and processing waste
- Yard waste/leaves (shredded or unshredded) and ground land-clearing debris
- Sawmill/wood waste (including engineered wood product waste)
- Cotton gin and mill waste (domestic origin only unless tested and approved)
- Pharmaceutical waste (e.g., corn cell cream, filter sludge and carbon filter material)
- Shredded mixed paper
- Waxed and/or food-soiled cardboard
- Animal manures/bedding
- Wallboard paper/drywall (new construction only)
- Cornstarch and/or cornstarch glue
- Drinking water plant residue
- Grease trap waste
- Oils, fats, and greases
- Untreated, unpainted wood waste and pallets
- Silviculture waste

- Wine production waste
- Polyethylene glycol (PEG) wastewater
- Sugar water food processing waste
- Engineered wood products

Approximate annual tonnages for each incoming feedstock are as follows:

Eggshells	12,000 T
Dairy waste (unpredictable)	100 T
Brewer's yeast and water (short-term thru 2009)	10,000 T
Food waste (pre and post-consumer)	4,000 T
Yard waste (mulch)	2,000 T
Leaves	4,000 T
Shavings/ sawdust (unpredictable)	200 T
Ajinomoto (corn sludge, carbon, and cell cream)	9,000 T
Shredded paper	100 T
Cardboard	500 T
Animal bedding	7,000 T
Grease trap waste	14,000 T
Glycerin and oil (unpredictable)	500 T
PEG wastewater	2,600 T
Sugar water	3,000 T

All averages are HIGH. Brewer's yeast average is calculated by averaging about 200T each week. Brooks will NOT receive this throughout the year. Usually this is an emergency or clean-out product. Due to recent equipment problems at Cargill's Eden facility, they are not able to utilize the city's sewer for this product, as the solids are too high to discharge. As soon as their equipment is renovated (end of 2009) we will go back to receiving this material on an occasional basis.

With the exception of leaves, seasonal variations in incoming feedstocks cannot be predicted. Leaves are predicted as an incoming feedstock between late November and February.

When new feedstocks are proposed for receipt at the facility, or when variants of approved feedstocks are proposed, the following procedures will be followed to gain NC DENR approval:

New Feedstocks

1. The origin (source or sources), description, anticipated quantity and duration, and physical/chemical characteristics (e.g., C:N ratio, volatile solids, ammonia, nutrients, pH, total metals, viscosity if liquid, etc. and other as required by the Division on a case-by-case basis) of the feedstock will be documented in a 'New Feedstock Notification and Request for Approval' letter to the Solid Waste Section at least 45 days before receiving the new material.
2. Test reports of physical and chemical analyses, if available, will be supplied with the notification/request.
3. New feedstocks will be evaluated to determine beneficial reuse potential in cases where the feedstock is not obviously compatible with the acceptable materials list and/or paragraph .1402 (f)(3) of the NC Solid Waste Management Rules. The assessment of new feedstocks will be performed by Dr. A.R. Rubin of McKim & Creed, by qualified NCSU faculty, by faculty from a Community College agriculture program, by a representative from NCDA-Agronomic Services, or by another individual or private laboratory with demonstrated competence in the assessment of feedstocks for use in agriculture, silviculture, or horticulture. A report describing the results of the assessment will accompany the notification/request.
4. The notification/request will state whether the feedstock is proposed for "permanent" (long-term) use in compost production or "temporary" (short-term) use in either compost production or in a demonstration/research trial.

Variants of Existing Feedstocks

With the exception of generic feedstocks, such as untreated wood wastes, yard wastes, mixed paper, manures, pre- and post-consumer food wastes, and carbon-based bulking materials, variants of existing feedstocks will be proposed for use and approval in a like manner to new

feedstocks as outlined above. The notification/request in such cases will be referred to as a 'Feedstock Variant Notification and Request for Approval' letter.

It is anticipated that the Solid Waste Section will notify the facility operator if additional information is needed, and will rule on the request within 30 days from said receipt. This will allow the operator to enter into a contract with the feedstock supplier and make the necessary arrangements for the commencement of feedstock shipment and receipt.

B. Receipt and Preparation of Materials

For all unknown vehicles entering the facility, site personnel will make a visual check of incoming loads prior to receipt. Any non-conforming/unauthorized materials shall not be allowed to off-load. The Site Manager will be knowledgeable of approved disposal options for various non-conforming/unauthorized materials, and drivers with such materials will be directed to an appropriate disposal location.

Upon receipt, the materials shall be off-loaded at the appropriate storage or processing area. Whenever possible, loads will be examined for contaminants, nonconforming and/or unauthorized materials as they are dumped. Any nonconforming and/or unauthorized materials found during off-loading shall be reloaded into the delivery vehicle.

In the event non-conforming/unauthorized wastes are discovered in the storage/processing areas, those materials shall be separated by the facility staff. A roll-off container shall be established for the temporary storage of those materials that cannot be legally or practically managed on site. Facility personnel shall be responsible for the loading and transporting of such materials to an appropriate and properly permitted disposal facility.

All liquid and semi-liquid wastes, and any other wastes with noticeable running liquid, are unloaded in the liquids bulking and mixing pit or onto the adjacent concrete pad. The preparation of incoming liquid wastes consists of mixing with absorbent bulking material in the mixing pit, using an excavator (track hoe) bucket, until the mixture exhibits little or no free liquid to the equipment operator.

Examples of absorbent bulking materials are bulk cotton, cardboard, sawdust, and shredded paper. The fresh mix is then placed on an adjacent concrete pad to allow any remaining or heat-released free liquid to drain until the seepage and runoff ceases or becomes negligible. Depending on incoming volumes and weather conditions, these "wet-mixed feedstocks" are allowed to drain and heat, in which much of the excess liquid is evaporated. Some of the wet-mixed material is re-used within the mixing pit. Ultimately, the bulked and drained wet-mixed feedstocks are placed in the appropriate windrow.

The concrete pad is designed to direct all runoff to the basin (mixing pit) or to one of two grated inlets in the pad that carry it by pipe to two (2) 3500-gallon concrete vaults in series. In the vaults, the liquid runoff passes through a series of baffles to allow settling of solids, and then is held for reintroduction to the pit or for pumping into a water truck for application to new windrows. A manually activated bypass pipe allows for the runoff to bypass the vaults in the event of large or long duration stormwater runoff events.

The concrete pad, mixing pit and vaults are installed above the site's clay subsoil that retards infiltration in lieu of a concrete pad, and directly on a 6-inch layer of washed stone that conveys any spills or leaks into an underdrain system that daylights into the adjacent grassed swales. Refer to Drawing D-3 - Liquid Waste Solidification Basin in Appendix A for a schematic of the basin layout.

Odorous wastes such as eggshells, manures and some food waste are normally incorporated into a windrow immediately upon arrival on site, or sometimes covered with leaves or finished compost and stored up to one (1) week (see Drawing D-2). Food waste is normally stored in a static pile for softening and conditioning one (1) to two (2) weeks prior to placement in windrows. These wastes are segregated on site to prevent pathogen cross-contamination. Finished compost is applied to static piles of food waste at a rate of 6 to 8 inches, or to fully cover the material and prevent vector attraction. Temporarily stored materials are then incorporated into windrows prior to beginning to compost, produce odors, or attract insects.

Other wastes are stockpiled in various bulk storage areas until utilized in the windrows. In cases of short-term surges in individual feedstocks, temporary storage times may exceed one week, but only until the first available opportunity to incorporate the feedstock into the windrows. An exception is

leaves, which are segregated and stored in a leaf windrow for up to one (1) year before being used as a bulking material. Leaves and other thermally unstable organic feedstocks will be stored in windrows not exceeding 15 feet high by 30 feet wide in order to avoid conditions conducive to spontaneous combustion.

C. Windrow Composting

The windrows will be constructed in the designated areas (see Drawing D-2). The windrows are constructed with varied feedstocks (variable C:N ratios) in combinations designed to assure a high quality, marketable compost product and control odors. Some windrows are constructed from selected feedstocks using "recipes" to meet specific market needs.

Typical mixing recipes for each 25 yard windrow section:

- Eggshell-containing windrows: 7.68 CY eggshells, 2.88 CY Ajinomoto products, 6.72 CY food waste/bulking material, 7.72 CY wet-mixed feedstocks

- Non-eggshell windrows are comprised of 100% wet-mixed feedstocks

Temperature and percent moisture are monitored and turning is employed as needed to maintain aerobic conditions and suitable elevated temperatures to expedite composting (thermophilic decomposition), reduce odors, and reduce pathogens. This stage should take about 4 to 6 weeks.

1. Feedstock Properties

The carbon: nitrogen ratio (C:N) of the feedstocks is a critical factor affecting the rate of decomposition. Different feedstocks will contain different amounts of decomposable carbon and nitrogen. High carbon waste such as wood is sometimes called "brown waste", while high nitrogen waste such as manure is sometimes called "green waste." During windrow construction, the layering of feedstocks shall be designed to result in a mixture having a suitable carbon:nitrogen ratio. The C:N ratio should ideally be in the 30:1 to 40:1 range.

The initial carbon: nitrogen ratio of the feedstocks shall be adjusted to a maximum of about 40:1 to provide sufficient nitrogen nutrients for vigorous composting, and a minimum of about 25:1 to minimize ammonia formation and other odors. The target ratio is in the range of 30:1 to 35:1. As compost matures, reductions in C:N to 10-15:1 may result as carbon is released during the humification process. The use of partially composted materials as a layered feedstock is permissible. Such material would have a lower C:N ratio and thus would act as an inoculate of nitrogen to reduce the C:N ratio of brown waste feedstocks.

The chemical property pH is the measure of acidity/alkalinity. The correct pH balance plays an important role in the composting process. The pH balance affects the quantity of nutrients available to support the microbial activity. The closer the compost mixture is to neutral (pH = 7), the more efficient the composting process will be, thus a pH in the range of 6 to 8 is desired. If pH falls outside this range (typically below), a liming agent is added to raise the pH, or the mix recipe is adjusted.

The particle size of feedstocks also affects the rate of decomposition. Small particle sizes provide more surface area for microbial activity that results in a rapid decomposition rate. Particle size reduction also results in feedstock volume reduction. Small particle sizes must be balanced by the need to have voids between particles (air space) for oxygen to access the microorganisms. Thus, blending of feedstocks to ensure a good distribution (gradation) of particle sizes is needed to promote oxygen availability and microbial activity.

2. Placement

Three composting methods are used at this facility: open windrows, static piles followed by placement into windrows, and yard waste windrows. Windrow composting is accomplished by placing the mix in long piles that are approximately 14 to 20 feet wide and six (6) feet high. Prior to constructing a windrow, dry sorbent bulking material or finished, unscreened compost is placed in an 8- to 10-inch layer to form a base layer beneath the windrow to absorb excess moisture.

Mixing is conducted on the compost pad adjacent to the newest windrow. A front-end loader is used to measure the volume of bulking agent (carbon source) and nitrogen sources to be added. The front end loader adds bulking agent at a ratio of approximately two parts bulking agent to one part nitrogen source by volume with a target C:N ratio of 30:1 to 35:1. The operator visually examines and manually tests the mix by squeezing it in his hands. If free water drains off, then the mix is too wet and additional bulking agent is added. If the mix crumbles and does not form a ball when squeezed, it is too dry, and additional wet material is added. If the mix forms a ball and is wet to the touch, then the mix is adequate for placing in the windrows.

Mixing is accomplished by either of two methods. In Method No. 1, the material is repeatedly turned using the front-end loader and then placed in the windrow. In Method No. 2, the material is placed in the windrow and then mixed using the windrow turner. After mixing, the front-end loader or turner will create the desired windrow size and shape. Care must be taken not to compact the feedstocks during placement and/or shaping in order to maintain a porous, fluffed pile. After mixing, if any putrescible wastes are exposed on the pile surface, they shall be covered the same day with mature compost or fresh bulking material. If feedstocks are odorous, they are normally allowed to go through one complete heat cycle prior to turning to encourage absorption of odorous gases.

3. Moisture Modification

Control of the amount of water in the composting material is a critical element in achieving optimum aerobic composting results. The microbes (bacteria) responsible for the aerobic decomposition process need appropriate quantities of water, oxygen and nutrients to accomplish humification. The amount of moisture in the windrow (percent moisture) should be maintained between 45 and 60 percent. (Percent moisture = weight of water in moist compost ÷ moist (total) weight of compost) Percents moisture outside these limits will cause a reduction in microbial activity, slowing the composting process. During the initial layering of the feedstocks, it is important to know the relative moisture of the various feedstocks. This enables the proper moisture level to be attained throughout the windrow during its construction. Water plant residue or grease trap pumpings can be added to increase moisture, but only before the pathogen destruction phase begins. Moisture levels are determined using the hand-squeeze method described above (Section 2 – Placement).

If material begins to dry significantly, thereby inhibiting microbial activity and dusty conditions are prevalent, clean water is added to the top of the windrows through the use of a portable water tank equipped with a pump and hose. A VEE shape is cut in the top of the windrow to enhance capture of rainwater as well as capture of water from the water tank. The pile is turned after adding water to thoroughly distribute the moisture. Only clean water, normally taken from a nearby, off-site farm pond, is added to other than new windrows. No leachate from the solidification basin/pad, or drinking water plant residue, or water from the stormwater pond, or any other moisture source known or likely to contain pathogens is added to the windrows after PFRP starts (see Section 4 – Aeration). Typically, no water is added during the final five (5) weeks of composting (stabilization).

The exposed windrows will allow some rain to infiltrate the compost and increase the percent moisture. The facility staff must be aware of current moisture conditions and forecasted weather when determining the need for moisture modification of the windrows. Maintaining a triangular cross-sectional shape of the windrow will help reduce rainfall infiltration when moisture conditions are high or excessive. More frequent turning may be required in such cases to promote drying.

The grade of the composting area must be maintained to promote rapid drainage of stormwater runoff. Ponding of water in the composting area shall not be allowed to occur.

4. Aeration (Turning)

Aeration of the composting materials is necessary for aerobic biological processes. Aeration provides compost oxygenation, helps ensure process stability, and enables temperature control. Insufficient aeration can result in elevated temperatures that retard microbiological activity (slow the decomposition process). In addition, the compost may go anaerobic (lack of oxygen), a condition that causes noxious odors and can produce plant toxins. Excessive aeration, on the other hand, accelerates heat removal and increases evaporation, which can also result in a reduced rate of decomposition. Thus, the proper frequency and extent of aeration (turning) is critical to an efficient composting process, in terms of both temperature control and oxygenation. The physical mixing during turning also breaks up air channels and clumps, blends materials from top to bottom in the windrow, and

provides for uniform microbial activity. Compost temperature can also be controlled by reducing windrow size to lower temperature, or by increasing windrow size to raise temperature.

The windrows are periodically turned to break up clumps to expose more surface area to active microorganisms and to expose all materials to temperatures to ensure pathogen destruction and vector attraction reduction. To ensure pathogen destruction and vector attraction reduction and to qualify the composting process as a "process to further reduce pathogens" (PFRP), the windrow temperatures must be maintained at or above 131°F for at least 15 days. Additionally, during the period that the temperature is above 131°F, the windrow must be turned a minimum of five times. The windrows must also be turned at least once per week during the summer to break the fly reproductive cycle.

Windrows are turned periodically based on temperature measurements. We utilize two mechanical thermometers and one electric thermometer. All three are checked monthly to see if ambient and pile temperature reads the same.

If temperatures are measured in excess of 155 °F, the windrow requires turning to cool the composting material. If temperatures during the first three (3) weeks of composting are less than 110°F, the windrow requires turning or adjustment. Low temperatures may indicate a lack of oxygen, C:N ratio or moisture content outside the desired range, or some other external factor. Pile turning will provide the needed oxygen to the microorganisms. Adjusting the mix components or ratios may create the right proportions to initiate or accelerate microbiological activity and decomposition. The temperatures used to determine when the compost pile requires turning are guides and may be adjusted based on long-term pile temperature trends and/or length of time the material is composted.

Caution should also be exercised to not allow mixing of compost materials that have undergone pathogen and weed seed destruction with those that haven't, either in the windrows or in equipment or vehicles used to process or transport the compost.

D. Compost Stabilization

The stabilizing of fresh compost to produce mature compost will be provided for as dictated by market

demands. Stabilization is the gradual reduction of microbial activity in the presence of moisture and aeration, and is accomplished by continuing the aerated windrow composting process under the same controlled conditions as in the first stage. Thus, stabilization will be performed in the original windrows. The degree of stabilization achieved may also depend on demand versus production rates. The stabilization stage may take up to an additional 6 to 8 weeks.

E. Refining and Curing

Material is stored in a static pile for at least two months, preferably longer (12 months) for final curing. Final curing and storage is typically performed together on site. Curing and storage occurs in areas adjacent to the compost pad as shown on the site plan. Curing is accomplished in the final storage area as needed to satisfy market demands.

The compost will be refined by screening to remove oversize particles and foreign material and improve the consistency and quality of the final product. Screening is normally done near the finished product processing area (see Drawing D-2). Screening is conducted after the curing period and just prior to sale. The screen size is 1/2 inch or as required by the market. The compost (<1/2 inch) is stored on site in static piles until marketed. A large, open-side storage building, approximately 120 feet by 50 feet, is available to protect screened blends from heavy rainfall events. Oversize material ("overs") is stored in piles, then run back through the composting process. Foreign matter is disposed of in an appropriate permitted off-site facility.

F. Quality Control

Temperatures are taken in each windrow at 50-foot intervals down the length of the windrow using a probe and Windrow Manager 2.0 software developed by Green Mountain Technologies. This system allows for accurate record keeping and feedstock data storage. Temperatures are taken no less frequently than every two days during the time the PFRP requirements are being met, and then no less frequently than weekly.

Sampling and testing at the composting facility is necessary to:

- Monitor the process efficiency
- Provide data for regulatory agencies
- Provide data for trouble-shooting when problems develop

It is extremely important that all sampling and testing be done at representative points in the process in a consistent manner. The data that results from any sampling and testing program is only as good as the sample that is taken. Sampling should be done in a consistent manner, on a regular basis, and using specific techniques. This section will outline the sampling schedule to be used and the sampling procedures required for a successful sampling and testing program. The operator should make every effort to perform sampling in a consistent routine, according to these guidelines.

1. Sampling and Testing Schedule

Final product sampling is conducted every six months or every 20,000 tons, whichever comes first. The test results shall be reported in the facility's annual report (see Section K.4). The following sections outline sampling types and procedures. Sampling for testing of pathogens is performed with sterile gloves, sterile scoops, and sterile containers.

2. Grab Sample Definition

Grab samples are samples that are collected at one particular time, in one particular location of a certain composting process. Analysis from this type of sample will provide results from a random portion of the process stream being sampled. In order to achieve a more representative analysis of a given process stream, many grab samples can be collected at various times and analyzed individually or these grab samples can be combined into one large sample for a composite sample analysis.

3. Grab Sampling Procedure

Grab samples are collected using a clean, dry sampling jar (one pint glass or plastic bag). The sample

is collected at a point in the material that is between two and six feet into the pile from the outside surface and representative of the compost pile that is being sampled. Each grab sample is approximately the same volume as previous grab samples. Sterile scoops and sterile gloves should be used when taking grab samples to be analyzed for pathogens.

4. Composite Sample Definition

Composite samples are a mixture of grab samples that are collected individually at various times at the same location in a certain process or a mixture of samples that are collected individually at various locations in a certain process. Grab samples are immediately transferred to a composite sample container for storage. These types of samples generally provide a more representative sample for analysis than does a grab type sample because it will reflect variations in the process.

A five-gallon bucket can be utilized to mix all of the grab samples together and take the final composite sample for analysis. This composite sample shall be analyzed for the parameters shown in Table 3-1 and any other specific constituents designated for specific wastes by NC DENR.

5. Composite Sampling Procedure

Composite samples are stored in a clean, dry sampling jar (one gallon or larger) with an airtight, screw-on lid. The sampling container is appropriately marked and stored in a cool, dry place, out of direct sunlight, preferably a refrigerator. At the end of the sampling period, after the last grab sample is added to the composite jar, the composite sample is mixed well and a representative portion placed in a one-pint sampling jar for analysis. The sampling jar is airtight and stored in a refrigerator until it is delivered to the laboratory analysis. Analysis should be performed as quickly as possible, preferably within 24 hours after collection. The sample jar is adequately labeled with sample name, date of collection, and the operator's name.

G. Odor, Dust, Noise and Vector Control

The facility shall be operated utilizing procedures that will minimize odor, dust, noise and vectors.

Off-site odor is alleviated utilizing the following strategies:

- Incoming nitrogenous feedstocks are immediately incorporated into windrows, or are covered with finished compost until they can be incorporated
- Windrows that contain eggshells are allowed to decompose on their own for the first 3-4 weeks before the first turning, and optimal conditions for turning are sought for these windrows, namely:
    - Dry, sunny weather predicted for long periods of time after turning encourages a "crust" to form on the outside of the windrow, keeping odors sealed
    - Wind direction coming from the North or West to allow fowl odors to travel into large wooded and scarcely populated areas to the East and Southeast of the site

Optimal conditions for the first three turnings of the eggshell windrows are attempted, as this is when strong offensive odors are most likely to occur. However, there are times that the weather is not cooperative with our efforts, and we strive to decrease odor as much as possible in these situations.

Weather is monitored daily. If an offensive odor is detected, the suspect windrow is covered immediately with finished compost. If an offensive odor crosses the property boundary, it is noted and investigated to determine the potential suspects. All efforts are made to properly identify the odor source and halt further odor emissions.

However, it is more important to make sure that conditions are not favorable for strong offensive odors. When a windrow is turned in unfavorable weather, the odor is immediately emitted during the process and little can be done to correct or cover up the problem. The odor will continue to linger in cloudy or damp conditions, and will not cease in the absence of sunny or dry conditions. With our facility, weather conditions are the most important factor in daily operations, and determine the favorable or unfavorable conditions for odor travel and strength. This in turn determines daily activities, among other monitoring efforts.

Neighbors are encouraged to utilize the finished product, and are often recipients of free compost in

exchange for dealing with the hindrances of a commercial compost facility. The majority of neighbors are very understanding, as the compost site is located near several poultry farms that produce offensive odors on a regular basis. Furthermore, no housing developments are located within a 5-mile radius, and the majority of surrounding land is utilized in farm operations.

Dust will be controlled by the application of water spray, both on the compost in the windrows and on the facility roads during hot, dry weather. The application of make-up water to the compost during turning, to modify (increase) the percent moisture, should alleviate most problems with dust in the active composting area. In the refining process, a water mist may be needed on the screen and/or conveyor to control dust from the finer fraction during agitation. Waste screening and windrow turning may be postponed during periods of high wind to reduce the creation of dust.

Noise is not expected to be a problem given the nature of the proposed operation and the relative isolation of the site.

Regarding vectors, the facility staff shall maintain proper drainage and minimize standing water to reduce the potential for mosquito breeding. Odorous and/or putrescible wastes will be incorporated into windrows as soon as practicable in order to reduce the attraction of flies.

H. Operations in Inclement Weather

Windrow construction and turning may be postponed during prolonged periods of wet and/or very cold weather to avoid disruptions to the composting process. Similarly, waste screening and windrow construction and turning may be postponed during periods of high wind to reduce dusting and maintain site orderliness.

I. On-site Water Usage

All windrows are turned an average of once per week. Non-eggshell windrows can be turned twice per week, as they are recipients of increasing moisture originating from the pond prior to meeting PFRP. These windrows can easily handle double the amount of pond water during the first 2 months.

On average, moisture is applied at least twice/week, more or less depending on the weather. During this time, we are not trying to meet pathogen requirements; we are trying to utilize on-site water. These windrows can handle extra irrigation (applied with a spray truck) due to the feedstocks used. Grease trap waste, sugar water, and PEG water among others all provide excess energy for microbes. This allows the windrows to heat quickly for extended periods of time. Within these windrows, it is necessary to add extra water in order to keep temperatures at an effective level for composting.

J. Leachate Control

The compost windrows are constructed parallel to the existing slope (transverse to contours) to allow water to drain between windrows. Runoff drains southward from the facility into an on-site retention pond via three (3) swales. There is no engineering design documentation or as-built drawing for the facility's stormwater retention pond. The following description of pond planning and construction is provided by the Owner.

Chatham County Soil and Water authorities determined that the pond location was ideal for our purpose, as it was a natural low spot on the site. Therefore, upon a preliminary soil investigation, Chatham County Soil and Water approved the site as suitable for building a containment pond. Little excavation was needed to remove existing topsoil and other unsuitable soil. The dam was installed as well as a clay liner. All labor and equipment was provided by Judy D. Brooks Contractor, Inc. An erosion permit was issued by the State of North Carolina, and an on-site inspection was performed. Dam construction began in 2001. Suitable packing clay was located about 1/3 mile from the permitted area on Brooks' farm, and was suitable for the dam construction. A pan was used to bring the clay soil to the designated site, and a bulldozer was used to grade the clay to 6" layers. A vibratory sheepsfoot roller was used to compact the layers (see pictures). The clay was installed with the proper moisture content. The bottom and sides of the containment pond were also lined with two (2) 6-8" lifts of properly compacted clay. All steep slopes were covered with a layer of 4" or larger flat rock for erosion control.

The natural clay soils that cover the facility site serve as the base, or "pad", on which feedstock mixing, active composting, and curing occur. Heavy traffic routes, such as on-site access roads,

receive a "paved" surface consisting of crushed aggregate to improve trafficability and protect the base from disturbance. Process areas are alternately covered with organic materials and exposed as windrows or stockpiles are removed. Upon removal of an organic layer, the exposed clay is visually inspected for defects such as large cracks (> 1/2"), gouges, or other obvious damage. If no damages are observed, the clay surface is scraped lightly and flat and recompacted with rubber-tired vehicles to maintain a smooth, water-shedding surface. Large cracks, gouges and the like are documented by recording GPS coordinates in Windrow Manager 2.0 software. Repair of damaged clay consists of filling the defect with granular sodium bentonite.

To monitor the water quality of runoff from the site, runoff samples are collected frequently from the retention pond and analyzed in a certified lab. Retention pond water is analyzed approximately once per month for routine monitoring. Ammonia nitrogen, nitrate and nitrite nitrogen, total Kjeldahl nitrogen, biological oxygen demand, total phosphorous, total suspended solids, and arsenic are analyzed regularly.

K. Record Keeping and Reporting

Keeping accurate records is an important part of the operation of any composting facility. Proper records are necessary to monitor the performance of the facility and to make operational decisions. Of great importance is the establishment of a reliable continuing record for proof of performance, thus justifying operational decisions, expenditures, and recommendations. Daily operational records also provide information useful in process adjustments required due to climatic or seasonal changes or other recurring problems of a specific nature. Accurate records also provide the basis for planning future expansion, planning future modifications, establishing and adjusting operating budgets, and providing evidence of performance in compliance with regulatory agencies.

NCDENR Division of Waste Management requires record keeping on a continuing basis, which allows them to determine the facility efficiency and the effectiveness of the treatment in achieving the desired standards. Personnel from the NC DENR Division of Waste Management will make periodic visits to the facility. During these inspections, a review of operational and other records may be requested. Records must be retained for five years. The following sections outline data to be

maintained at the facility.

1. Monthly Data Reports

Monthly data reports are produced using Windrow Manager 2.0 software developed by Green Mountain Technologies. This software is used to evaluate the overall operation and for ease of tracking materials quantities on site. In addition, if any material does not meet the temperature requirements, fails pathogen or metal testing, or is unmarketable, it is identified on the monthly data report and appropriately segregated on the site. This report can be modified for use as required to facilitate maintaining data required by the NCDENR and to monitor the process.

2. Laboratory Sheets

Laboratory sheets are filed with monthly data reports and indicate bacteriological, heavy metal, and nutrient concentrations. Compost samples are taken every six months or every 20,000 tons (whichever comes first) as outlined in Section 3.1. These samples are used to verify that the product meets the requirements listed in Table 3-1.

Table 3-1

Brooks Farm Compost Facility

Semi-Annual Monitoring for Grade A Compost Requirements*

Parameter	Unit	Limit
Foreign Matter	%	< 6%
Cadmium	Mg/kg dry wt.	39
Copper	Mg/kg dry wt	1500
Lead	Mg/kg dry wt	300
Nickel	Mg/kg dry wt	420
Zinc	Mg/kg dry wt.	2800
Fecal Coliform	MPN/g dry wt.	< 1000
Total N	%	None
Phosphorus	%	None
Potassium	%	None
Calcium	%	None

*NC DENR Solid Waste Compost Rules

NOTE: Receipt of engineered wood products will require baseline monitoring for formaldehyde.

3. Annual Report

An annual report will be prepared and submitted to the Division of Waste Management for the period July 1 to June 30 each year, on or before August 1. The report will document the total quantity and types of waste received, including waste received from local governments, and the quantities of compost produced and sold. It will also document temperature monitoring results to demonstrate compliance with pathogen destruction criteria. For reporting on a weight basis, processed volumes will be converted using a factor of 500 pounds per cubic yard (0.25 tons/CY). Incoming feedstocks

will be reported based on scale tickets (e.g., food waste, iron humus), weights provided by the source (e.g., eggshells), and waste-specific volume: weight conversion factors. Conversion factors and formulae for deriving the reported quantities will be kept on file at the facility office. Yearly totals of solid waste received and composted shall be reported back to the local government of origin for annual recycling reporting.

The annual report will follow the following general outline:

(1) Facility name, address, and permit number;
(2) Total quantity, in tons, and type(s) of waste received at the facility, including waste received from local governments;
(3) Total quantity, in tons, and type(s) of waste processed into compost;
(4) Total quantity, in tons, and type(s) of compost produced at the facility, by product classification;
(5) Total quantity, in tons, and type(s) of compost removed for use or disposal from the facility, by product classification, along with a general description of the market;
(6) Summary of temperature monitoring, by month; and
(7) Results of any analytical tests performed.

IV. Equipment

Equipment used on site is as follows:

- Rice Lake Survivor Scales
- Volvo 110E rubber-tired loader
- Volvo 120D rubber-tired loader
- One (1) finished product loader bucket
- Two (2) buckets for mixing/ screening of finished product
- Two (2) raw material loader buckets
- One (1) Allu grinder bucket for coarse wood materials
- Scarab Model 20BA turner
- Powerscreen Warrior 1800 screen with stacking conveyors

- Volvo 210 Excavator
- Volvo 240C Excavator
- Komatsu D-65 Bulldozer
- Bell large capacity off-road truck
- Spray truck for windrows
- Spray truck for roadways
- Kubota RTV
- Green Mountain Technologies software and thermometer for recordkeeping

One loader is designated for mixing manure, food waste, etc. to avoid cross-contamination of finished products. Separate buckets for mixing and loading are sometimes used to minimize cross-contamination, backed by cleaning the buckets as needed.

Regular equipment maintenance is required to ensure a marketable product is produced. Maintenance on all diesel powered equipment is conducted every 250 hours. Major overhaul is conducted as the specific equipment manual requires. Typical length of time that such an overhaul takes is 2-3 days. The windrow turner requires hammer (flail) replacement approximately every 200 hours, and will be out of service for a period of 1-3 days. Maintenance takes on average about an hour. Volvo performs all services, and is responsible for hauling all fluids to an off-site location. Equipment operators inspect equipment at the start of each work day, and all concerns are noted and addressed. All equipment is lubricated daily. Petroleum products and other hazardous material such as diesel fuel, used and new motor oil, hydraulic fluid, lubricants, and antifreeze are stored and used on site.

The facility maintains a good relationship with local equipment mechanics and dealers. If an unanticipated occurrence threatens the daily operations of the facility, Brooks Farm has the ability to quickly obtain rental or demo equipment to use until equipment is repaired. Protocol is as follows: If a piece of equipment necessary for daily operations and well-being of the facility shall need repairs and be out of commission for more than (1) day, and Brooks does not have another fully operating piece of equipment that can perform the required task, Brooks shall lease a comparable piece of equipment for as long as necessary to fully repair Brooks' existing equipment.

V. Security, Safety and Fire

A. Security

Uncontrolled public access is not allowed. An operator is on duty at the site while the facility is open for public use. The road to the site is maintained to allow all-weather access. A sign stating, "No hazardous waste, asbestos containing waste, or medical waste is allowed on site" is posted at the site entrance. The same sign or other signs posted at the site entrance provide information on wastes that are acceptable, hours of operation, and emergency contact information. An example of the sign content is included in Appendix B.

B. Safety

The safety of personnel and users of the facility shall be a high priority. Site personnel are required to attend all scheduled safety meetings. Safety practices shall encompass all people working, delivering materials, or receiving finished product at the facility. The operation shall be conducted in compliance with all applicable state and federal OSHA standards. Telephone numbers of emergency agencies shall be prominently displayed, and all staff shall be familiar with those numbers and the location of telephones. In the event of injury, OSHA guidelines shall be followed to ensure the proper response and reporting of incidents.

Equipment shall be used in the manner described in the owner's manual, with special attention to safety features and safe operating guidelines. The facility staff shall maintain equipment in safe operating condition. The staff will be familiar with and follow the equipment manufacturers' recommendations for the safe use and maintenance of the equipment.

C. Fire

The aerobic composting process is exothermic, i.e., heat is generated by the high-rate decomposition process. If excessive heat develops in the presence of flammable feedstocks during the active composting phase, the potential exists for occasional fires from spontaneous combustion. This

potential can be reduced by maintaining pile sizes at or below the limits outlined in Section III.C.2. The facility personnel shall be trained in basic on-site fire response procedures and shall have access to heavy equipment (see Section IV above), water and extinguishers to aid in the early suppression of fire. Emergency (911) and fire station telephone numbers shall be posted by all on-site telephones. Fire suppression may include isolating and spreading burning material, application of water or chemical suppressant, and/or covering with soil.

VI. Health and Safety

The following are some general recommendations for the health and safety of workers at Brooks Farm Compost Facility.

A. Personal Hygiene

The following personal hygiene recommendations should be stressed as common practices to all operators.

- Wash hands before eating, drinking, or smoking.
- If heavily contacted with manures, spoiled food, or pathogenic or putrescible wastes, immediately take a hot shower and put on clean clothing.
- Wash, disinfect, and bandage any cut, no matter how small. Any break in the skin can become a source of infection. Change bandages frequently and wear protective clothing or equipment over the wound.
- Keep fingernails closely trimmed and clean (dirty nails can harbor pathogens).

Individuals who are highly debilitated or have severe allergies or asthma should not be employed to work around compost equipment.

B. Personal Protective Equipment

Personal Protective Equipment (PPE) must be evaluated as to the level of protection necessary for particular operating conditions and then made available to facility employees. The list below includes

the PPE typically used and/or required in a compost facility workplace:

- Safety shoes with steel toes;
- Hearing protection, used in areas where extended exposure to continuous high decibel levels is expected;
- Disposable rubber, latex or chemical resistant gloves for handling and/or sampling waste materials; and
- Dust filter masks.

Following use, PPE's should be disposed of or adequately cleaned, dried, and readied for reuse.

C. Mechanical Equipment Hazard Prevention

The loaders and windrow turner should be operated with care and caution. All safety equipment such as horns and lights should be functional.

D. Employee Health and Safety

Some general safety rules are:

- Use the safest method to get a job done, including using the proper equipment and tools. Review equipment O&M manuals prior to attempting repairs/changes.
- Use the buddy system in case of repairs to mechanical equipment (have a co-worker stand guard).
- Keep a diligent attitude towards safety. Lack of awareness or a careless attitude can lead to accidents.
- Know where first aid kits and fire extinguishers are located. If unsure, get training in their proper use. In emergencies, dial 911 to activate EMS.
- Equipment operators and truck drivers are required to submit to random drug screening tests.

1. Fire Extinguisher

Potential fire hazards at a compost facility are created from the build-up of fine dry dust particles on and around operational motors and control panels. The presence of these build-ups can cause overheating and potential fire if periodic equipment cleaning and maintenance are not practiced. Portable fire extinguishers should be maintained in a state of readiness at the screen location and on each piece of moving equipment.

2. Physical Exposure

Facility personnel who may come in contact with physical exposures on the job should be kept aware of the health aspects associated with the fluids, solids, and airborne constituents found at composting facilities. Training concerning safe work practices around these potential exposures should use equipment and proper disposal procedures.

2.1 Bioaerosols

Like physical contact with pathogen-containing wastes, bioaerosols are airborne microorganisms that can enter the body in similar locations. Bioaerosols can become airborne during mixing, turning, and screening of composted materials. Once airborne, bioaerosols may be inhaled or contact the eyes or other mucous membranes. Dirty hands may also result in inadvertent transmission to the mouth or eyes. Refer to Sections VI.1 Personal Hygiene and VI.2 Personal Protective Equipment for reminder information on personal health and safety.

2.2 Dust

Excessive dust can be a health hazard as a result of its irritating effect on eyes and mucous membranes if proper PPE, such as protective goggles and dust filter masks, are not worn by all personnel in the affected areas. During periods of dry weather, excessive dust can be controlled by sprinkling water in the screening area and on access roads. Goggles and dust masks should be worn regardless in "dusty" conditions.

APPENDIX A

SITE PLANS

APPENDIX B

EXAMPLE SIGN

EXAMPLE OF SIGN(S) AT ENTRANCE

BROOKS FARM COMPOST FACILITY

Dean Brooks, Owner/Operator (919) 842-0006

Emergency Contact (24 Hours) (919) 837-5914

Hours of Operation:

Monday - Friday	7:30 am - 5:00 pm
Saturday	7:30 am - 1:00 pm
Sunday	Closed

NO HAZARDOUS WASTE, ASBESTOS CONTAINING WASTE, OR MEDICAL WASTE IS ALLOWED ON SITE

YES Acceptable Wastes (with prior approval):

Pre-ground land clearing debris
Agriculture waste and manures
Food waste and food processing byproducts
Grease trap pumpings
Shredded mixed paper, cardboard
Untreated, unpainted wood and pallets
Yard and garden waste (leaves, grass, etc.)
Silviculture waste

NO Unacceptable Wastes:

Municipal solid waste (household garbage)
Industrial solid waste
Construction and demolition debris
Hazardous waste
Asbestos-containing waste
Medical waste
Treated or painted wood
Anything else we don't want

Permit # SWC-19-05

Issued by the NC Dept. of Environment and Natural Resources, Div. of Waste Management, Raleigh, NC (919) 733-0692

APPENDIX C

COMPOST INFORMATION SHEET (EXAMPLE)

BROOKS FARM COMPOST FACILITY

COMPOST PRODUCT INFORMATION SHEET

GRADE: The compost you have purchased is **GRADE A COMPOST** derived from *recycled* yard waste, land-clearing debris (trees, brush and stumps), and other biodegradable organic wastes approved by the North Carolina Department of the Environment and Natural Resources, Division of Waste Management.

RECOMMENDED USES: Use as a *SOIL AMENDMENT* to add humic (organic) matter, improve soil texture and drainage, increase rainfall infiltration and water retention, increase biological activity, and encourage seedling emergence and root growth. Can also be used as a *MULCH* to reduce soil erosion and moisture evaporation, moderate soil temperatures, encourage seed germination, and suppress weed growth.

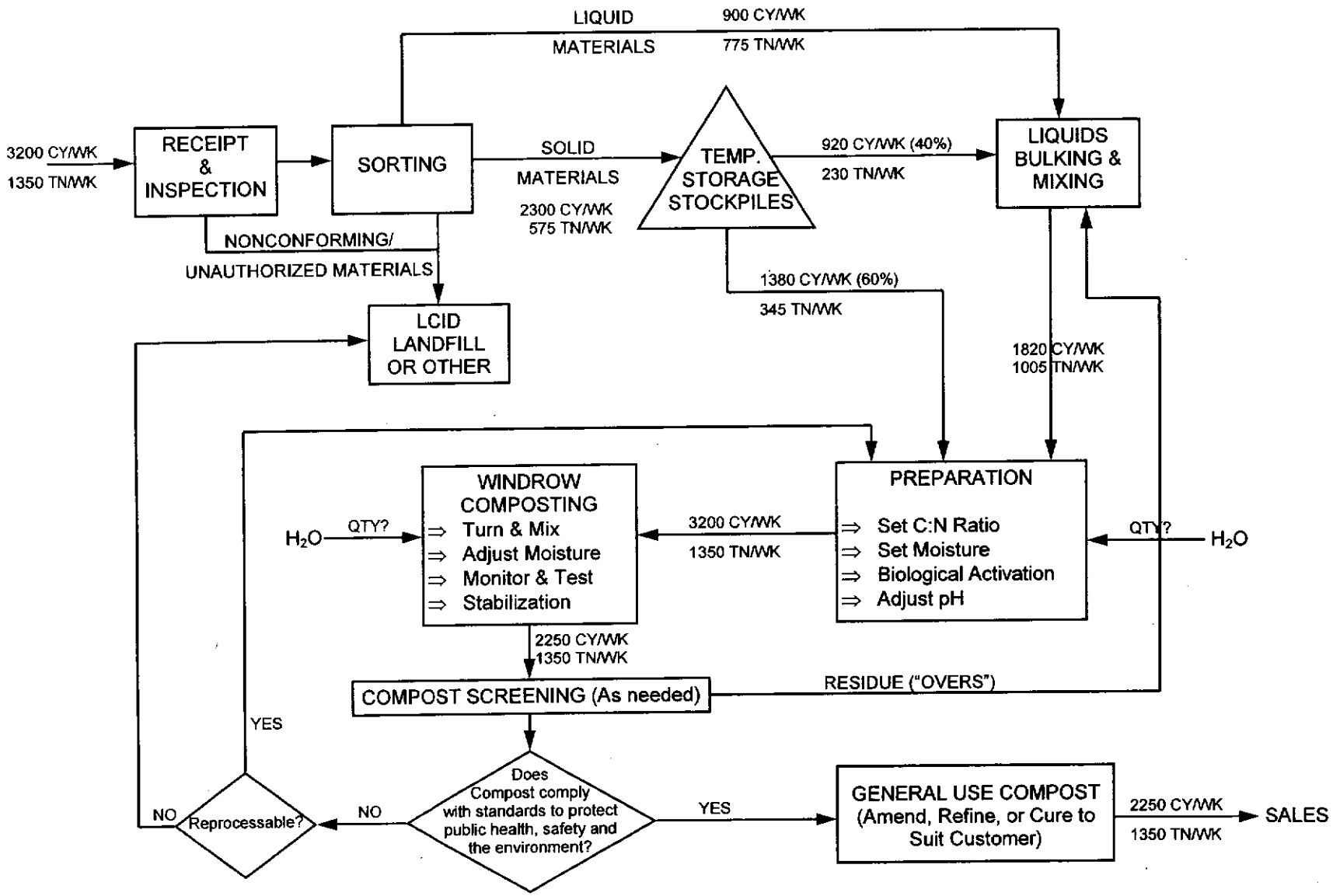
APPLICATION RATES: As a soil amendment, spread to no more than 3 inches depth at a time prior to mixing and repeat until the desired organic content is attained. As mulch, spread to desired thickness (3 inches minimum recommended); secure if necessary with netting, roving or pegs and twine.

THERE ARE NO RESTRICTIONS ON THE USE OF THIS PRODUCT.

Brooks Farm Compost Facility
1195 Beal Road
Goldston, NC 27252

APPENDIX D

PROCESS FLOW DIAGRAM



September 2009

BROOKS FARM COMPOST FACILITY
PROCESS FLOW DIAGRAM

EcoLogic Associates, P.C.

Soil, Water, & Environment Group

Soil, Water, & Environment Group, LLC
Research Building I, Centennial Campus
1001 Capability Drive, Suite 312 • Raleigh, NC 27606
Ph# (919) 831-1234 • Fax# (919) 831-1121 • http://www.swegrp.com

October 15, 2009

Mark Taylor, PE, CPESC
EcoLogic Associates, PC
3808 Clifton Rd.
Greensboro, NC 27407

RECEIVED
JAN 14 2010
SOLID WASTE SECTION

Re: Brooks Farm Composting Facility Soils Investigation

Dear Mr. Taylor:

Soil, Water, and Environment Group (SWE) personnel visited the Brooks Farm Composting Facility ("Facility") to investigate the existing composting area soils to confirm County soil survey mapping, depth to seasonal high water, and soil characteristics. The Facility is located in Chatham County near the town of Goldston off Beal Road (SR 1195) and specializes in composting a wide variety of organic materials for distribution to end-users. The Brooks Farm property consists of the Facility as well as a cattle operation with a mixture of pasture, mature hardwood timber, and regenerating mixed pine hardwood forest.

Between August and October, 2009 SWE personnel visited the Facility to confirm soils and Natural Resources Conservation Service (NRCS) Chatham County Soil Survey mapping units using hand augers in the vicinity of the existing composting operations. Soil descriptions or soil borings (SBs) were produced in the vicinity of windrows and active composting areas.

Soils within the vicinity of the composting area are typical of some slate belt series soils with a high volume of channers at or near the surface, a mixture of non-expansive and expansive clays, and moderate to shallow depth to bedrock on steeper slopes. Topography is rolling across the composting site with slopes ranging from 2 to 6 percent.

The composting area was examined to provide information regarding the underlying soil series and composition below active compost piles. Soils were investigated in the vicinity of the piles to determine the depth to seasonal high water and confirm NRCS soils mapping units. Soils were examined using a hand auger to depths up to four (4) feet or to a limiting layer preventing further hand augering. Soils descriptions representing and confirming NRCS soil mapping units were recorded (See Soils Descriptions SB-5 and SB-6). The depth to seasonal high water is greater than three (3) feet in the vicinity of the active composting piles. And soils present are most similar to mapping units shown according to the NRCS Soil Survey for Chatham County (NRCS, 2009). Soils

found are most similar to the Badin-Tarrus complex with silty clay to clay horizons within 30 inches of the soil surface.

Please let us know if you have any questions or comments about the site investigation and soils data provided. We look forward to working with you on this project.

Sincerely,

Scott J. Frederick, EI, NCLSS
Environmental Scientist
President

Soil, Water, & Environment Group

Research Building I, Centennial Campus
1001 Capability Dr., Suite 312
Raleigh, NC 27606
Ph (919) 831-1234
Fax (919) 831-1121
Cell (919) 368-2029
sjfrederick@swegrp.com
www.swegrp.com

CC: Mr. Dean Brooks (Brooks Farm)

Soil, Water, & Environment Group

Soil Investigation Data Sheet

Soil Boring:	SB-5		
Location:	Brooks Farm compost rows vicinity	Date:	10/2/2009
County:	Chatham	Investigator(s):	SJF
Lat./Long.:	35-32-44.65 N, 79-22-11.22 W	Elev.:	355 ft.
Parent Material:	fine-grained metavolcanic rocks	Drainage (Wetness) Class:	well drained
Moisture Status:	moist	Slope (%):	2%
Classification:	Fine, kaolinitic, thermic Typic Kanhapludults (Badin/Tarrus Complex)	Vegetative Cover:	regen veg.
Aspect:	SW	Water Table:	>3'
Landscape Position:	Ridge		

					Structure						
Horiz.	Depth (in.)	Main Colors (moist)	Mottles	Texture	Grade	Class	Type	Moist & Wet Consist.	Ped Coatings	Horizon Boundary	Other Remarks
A	0-1	5YR 3/2 dark reddish brown	-	loam	weak	fine	subangular blocky	friable, ns, np	-	-	fine roots
B1	1-20	10YR 4/6 red	10YR 7/6 yellow few	silty clay	moderate	medium	subangular blocky	friable, ss, sp	-	-	few fine and medium roots
B2	20-32	7.5YR 5/6 strong brown	-	silty clay	moderate	medium	subangular blocky	friable, ss, sp	-	-	
B3	32-42	2.5Y 7/6 yellow	2.5Y 8/4 pale yellow	sandy clay loam	moderate	medium	subangular blocky	friable, ns, np	-	-	some fine roots, evidence of water movement ~38-40"
BC	42-48+	multicolored	2.5Y 5/8 yellowish red, 10YR 1/8 yellow, 7.5YR 6/4 light brown	sandy loam	moderate	medium	subangular blocky	friable	-	-	mottling, evidence of water movement

Soil, Water, & Environment Group

Soil Investigation Data Sheet

Soil Boring:	SB-6		
Location:	Brooks Farm compost rows vicinity	Date:	10/2/2009
County:	Chatham	Investigator(s):	SJF
Lat./Long.:	35-32-38.24N,79-22-17.80W	Elev.:	346 ft.
Parent Material:	fine-grained metavolcanic rocks	Drainage (Wetness) Class:	Well drained; medium runoff; moderate permeability
Moisture Status:	moist	Slope (%):	~4%
Classification:	Fine, kaolinitic, thermic Typic Kanhapludults (Badin/Tarrus Complex)	Vegetative Cover:	grass
Aspect:	SW	Water Table:	> 3'
Landscape Position:	Sideslope		

					Structure						
Horiz.	Depth (in.)	Main Colors (moist)	Mottles	Texture	Grade	Class	Type	Moist & Wet Consist.	Ped Coatings	Horizon Boundary	Other Remarks
A	0-2	5YR3/4 reddish brown		sandy loam	weak	fine	sb. blk.	friable, ns,np		clear, smooth	
E	2-4	5YR3/4 reddish brown		sandy clay loam	mod.	med.	sb. blk.	friable, ns,sp		clear, smooth	
B	4-24	2.5YR3/6 dark red		clay	mod.	med.	sb. blk.	friable, ns,sp		clear, smooth	
Bt	24-36+	2.5YR3/6 dark red	few 7.5 YR 4/6,6/8 &7/6	sandy clay	mod.	med.	sb. blk.	friable, ns,sp		clear, smooth	mottles are slate saprolite

Sustainable Communities Development Department
Planning Division
Post Office Box 54
80-A East Street - Dunlap Building
Pittsboro, NC 27312-0054

CHATHAM COUNTY
NORTH CAROLINA

Phone: 919-542-8204
Fax: 919-542-2698
www.chathamnc.org/planning

September 14, 2009

Brooks Construction
1195 Beal Rd.
Goldston, NC 27252

Attn: Mr. William D. Brooks

RE: Chatham County Zoning Regulations

Dear Mr. Brooks,

A request has been made by Mr. Mark Taylor of Ecologic Associates for the zoning classification and compliance status of your compost/landfill business located on Parcel No. 8668 and Parcel No. 8477. This property remains in an unzoned portion of the county where zoning regulations do not apply. There may be, at times, other county or state regulations that may apply to this site should you ever need information on expansions of the existing areas or subdividing of these properties.

At this time we find these properties are in compliance with county regulations. Please feel free to contact us with any questions or concerns you may have.

Respectfully,

Angela Birchett

Angela Birchett, CZO
Zoning Administrator

Cc: file
Mark Taylor, PE, Ecologic Associates, 3808 Clifton Rd., Greensboro, NC, 27407

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

April 14, 2009

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

Subject: Brooks Farm Composting Facility –
Permit Rescission
NPDES Stormwater Permit No. NCS000371
Chatham County

Dear Mr. Brooks:

On March 3, 2009, the Division received a letter from Mr. Mark Taylor of EcoLogic on your behalf reporting the status of a land application system design and permitting application to the Aquifer Protection Section (APS) of DWQ. Because more time was needed to develop a non-discharge system design, that letter indicated the interim solution was authorization to pump and haul wastewater as an alternative to direct discharge.

We received a copy of the letter dated March 10, 2009 from the APS verifying the deemed permitted status of the Pump and Haul system at your facility. Via e-mail communication with Mr. Taylor last week on April 6th, we verified that this is the current arrangement. The Stormwater Permitting Unit (SPU) is therefore returning your original application for renewal under NCS000371 and rescinding that permit, effective today. Please remember that discharging wastewater or stormwater to waters of the State without a valid NPDES permit will subject the responsible party to a civil penalty of up to $25,000 per day.

If have any questions or would like to discuss this letter, please contact Ms. Bethany Georgoulias at (919) 807-6372 or me at (919) 807-6378.

Sincerely,

Bradley Bennett

Bradley Bennett
Stormwater Permitting Unit Supervisor

Attachments

cc: *Myrl Nisely/Raleigh Regional Office*
Jay Zimmerman/APS, RRO
Jon Risgaard/APS – LAU, Central Office
Gil Vinzani/SWPS – NPDES East Unit
John Hennessy/NPSA&CO Unit
Mr. Mark Taylor, Consultant – EcoLogic
Michael Scott/DWM
Stormwater Permitting Unit Files
Central Files

Wetlands and Stormwater Branch
1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Location: 512 N. Salisbury St. Raleigh, North Carolina 27604
Phone: 919-807-6300 \ FAX: 919-807-6494 \ Customer Service: 1-877-623-6748
Internet: www.ncwaterquality.org

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One NorthCarolina Naturally

NCDENR

North Carolina Department of Environment and Natural Resources
Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

March 10, 2009

RECEIVED
MAR 11 2009
DENR - WATER QUALITY
Wetlands & Stormwater Branch

Dean Brooks
Brooks Contractor
1195 Beal Road
Goldston, North Carolina 27252

Subject: Brooks Contractor
Deemed Permitted Pump and Haul
Chatham County

Dear Mr. Brooks,

The Division of Water Quality has reviewed the application request made by Brooks Contractor on February 26, 2009 for the subject Pump and Haul System. In accordance with NC State Administrative Code 15A NCAC 02T, effective September 1, 2006, the 50,000 gallon per day Pump and Haul system at Brooks Contractor consisting of a retention pond to collect overland flow meets the requirements of 15A NCAC 02T .0203(a)(2) for systems to be deemed permitted. The Pump and Haul system at Brooks Contractor is not required to maintain an active Water Quality Permit provided that the facility continues to comply with the requirements of 15A NCAC 02T .0200.

The Pump and Haul facilities shall be effectively maintained and operated at all times so that there is no discharge to the surface waters, nor any contravention of groundwater or surface water standards. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the facilities to adequately contain the wastewater, the Permittee shall take immediate corrective actions including those actions that may be required by the Division, such as the construction of additional or replacement wastewater collection and / or storage facilities.

Please be advised that the deemed permitted classification from the Division of Water Quality does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state, and federal) that have jurisdiction. Of particular concern to the Division are applicable river buffer rules in 15A NCAC 02B .0200, erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 02B .0200 and 02H .0500. In addition, the deemed permitted classification from the Division of Water Quality is effective only with respect to the nature and volume of wastes described in the application and other supporting data. No variances to applicable rules governing the construction and / or operation of the permitted facilities are granted unless specifically requested and granted in writing from the Division of Water Quality.

Failure to abide by the conditions and limitations contained in the requirements of 15A NCAC 02T .0200 may subject the subject facility to an enforcement action by the Division in accordance with North Carolina General Statute 143-215.6A to 143-215.6C.

Aquifer Protection Section
1628 Mail Service Center, Raleigh, North Carolina 27699-1628
Location: 3800 Barrett Dr., Raleigh, North Carolina 27609
Phone: 919-791-4200 \ FAX: 919-571-4718 \ Customer Service: 1-877-623-6748
Internet: www.ncwaterquality.org

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One NorthCarolina Naturally

If you have any questions please feel free to contact me or Matthew Fleahman or at (919) 791-4200.

Sincerely,

S. Jay Zimmerman, L.G.
Environmental Program Supervisor

Attachment

cc: RRO-APS Files
Jon Risgaard – APS LAU
Bryan Green P.E., McKim & Creed, P.A. 1730 Varsity Drive Raleigh, NC 27606
Bradley Bennett – DWQ SWS
Aquifer Protection Section Central Files

Town of Siler City

SILER CITY, NORTH CAROLINA 27344-0769

P. O. BOX 769
311 N. SECOND AVE.

PHONE: (919) 742-4731
FAX: (919) 663-3874

January 30, 2009

Mr. Dean Brooks
Brooks Compost and Contracting
1195 Beal Road
Goldston, NC 27252

Dear Mr. Brooks:

In response to your request, this letter shall serve as the formal flow acceptance for the wastewater generated from Brooks Compost, 1195 Beal Road, Goldston, N.C. Based on our conversation and our plant's ability to handle wastewater, (NPDES NC0026441) we can accept this flow with the following provisions:

1. The Weekly maximum flow that can be received at the Siler City Wastewater Treatment Plant shall be 50,000 gallons per week. Any increase in this permitted amount shall be requested and approved in writing prior to any increase.

2. The starting date shall be January 30, 2009 and the ending date will last until permanent permitting is obtained and construction of the wastewater system is complete.

3. All wastewater received must be in compliance with the Town of Siler City Sewer Use Ordinance.

4. The cost will be $10.00 per thousand gallons.

5. The Town reserves the right to cease all acceptance at anytime if the receipt of the waste is proven to be a causal factor in any detrimental treatment plant performance.

6. This approval does not affect the legal requirement to obtain other permits or judgments, which may be required by County, State, or Federal government agencies.

If you should have any questions following the receipt of my letter, please do not hesitate to call.

Sincerely,

TOWN OF SILER CITY
Curtis Brown/kca

Curtis Brown
Siler City Waste Treatment Plant Superintendent, ORC

cc: Joel Brower, Town Manager
Terry Green, Director of Public Works & Utilities
Mr. Dean Brooks
Robert Rubin, Professor Emeritus