

/ Mason Cr. 57-05

2003

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57052003

North Carolina  
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Interim Director

August 8, 2003

Mr. Nelson Bates  
B & B Concrete Products, Inc  
1629 Georgia Highway  
Franklin, North Carolina 28734

Dear Mr. Bates:

Enclosed is the permit for you to operate a Small Type III Compost Facility at 1629 Georgia Highway in Macon County, North Carolina. The permit number is SWC-57-05 and the Facility will be known as B & B Concrete Products, Inc. Facility.

Please carefully read the permit conditions that are attached to the permit. The operation and maintenance information submitted with the application has been incorporated into the permit.

Mr. Jim Patterson, Regional Waste Management Specialist, will be responsible for oversight and inspection of the facility and related activities. Mr. Patterson can be contacted at 828-251-6208.

If you have any questions please feel free to contact me at 919-733-0692, extension 253.

Sincerely,

Ted Lyon, Supervisor  
Composting & Land Application Branch

cc: Jim Patterson, Waste Management Specialist, Asheville Regional Office  
Central Files, Solid Waste Section

h:cl/compost/permits/B&BConcreteSWC-57-05\_Aug-03

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
1646 Mail Service Center RALEIGH, N.C. 27699

**B & B CONCRETE PRODUCTS, INC.**

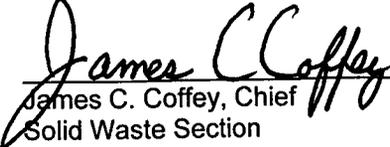
is hereby issued a permit to operate a

**SMALL, TYPE 3 SOLID WASTE COMPOST FACILITY**

at 1629 Georgia Road in Franklin, N.C.

**Permit Number SWC-57-05**

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.

  
James C. Coffey, Chief      8/8/03  
Solid Waste Section      Date

## 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. Failure to comply may result in compliance actions or permit revocation.
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 shall be managed in such a manner that it will not be not allowed to adversely affect ground or surface waters.
3. Only materials specifically listed in the permit application may be managed at this facility without adequate testing and prior approval of the Division of Waste Management.
4. All compost produced at the facility shall meet the requirements of Rule .1407 of the Solid Waste Compost Rules and the permit application.
5. Testing and reporting shall be conducted in accordance with the requirements of Rule .1408 and the permit application. An annual report of facility activities, including test results, for the fiscal year July 1 to June 30 shall be submitted to the Division by August 1 of each year. This report shall include the amount of materials composted in tons.
6. Groundwater monitoring wells may be required if there is indication of the potential for groundwater contamination.
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. **This permit shall expire on August 8, 2008.** Changes in ownership, increase in facility capacity, or receiving additional feedstocks shall require a permit modification.

# B&B CONCRETE PRODUCTS, INC.

1687 GEORGIA ROAD  
FRANKLIN NC 28734

PH. 828-524-6483 FAX 828 524 5194

July 29, 2003

Mr. Ted Lyon  
NC Dept. of Health, Environment & Natural Resources  
PO Box 27687  
Raleigh NC 27611 -7687

**APPROVED**  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION  
DATE 8/8/03 BY TL

Dear Mr. Lyon:

B&B Concrete Products, Inc., owned and operated by Nelson Bates, as per NC Administrative Code, Solid Waste Management Rules, Section .1400 request a permit for a Type 3, small solid waste compost facility. The following information is provided as requested in section .1405 Application Requirements.

1. Aerial photograph enclosed. The portion of Macon County where this facility is located is not zoned.
2. A letter from Macon County concerning zoning is enclosed.
3. The site is not located in a 100 year flood plain.

The nearest property line is the southwest corner of the property and it is at least 100' from the facility.

The nearest residence not owned by the applicant is 250' feet to the south.

There are no wells within 100 feet of the facility.

The nearest perennial stream is the Cartoogechaye which is approximately 1/4 mile away.

The facility is not located over a closed solid waste facility.

The facility is small enough that the fire department can access all parts of the facility.

The facility is designed to control the possibility of run-off entering ground or surface waters. Runoff from normal rainfall events is directed in a 1000 gallon storage tank adjacent to the concrete pad. The concrete pad is at least 5

inches thick. The tank is pumped as needed and the liquid removed is used for moisture in the windrows or transported to the Franklin Wastewater treatment facility.

4. The following wastes will be composted at the facility.

Grease trap pumpings                      50 to 150 yards of solids per year  
Domestic septage                              10 to 20 yards of solids per year  
Ground yard waste from the MC. Landfill    200- 300 yards per year  
Ground pallets from the MC Landfill  
Saw dust from log home production business  
Source separated paper.

A concrete pad is used for this facility.

5. Site plan is attached.

6. (A) The person responsible for the operation of the facility is:

Nelson W. Bates  
1687 Georgia Road  
Franklin NC 28734

- (B) Facility is operated by the owner and the yard foreman. Each one will as necessary perform any of the duties required in the operation of the facility.

- (C) Operation plan for the facility.

Grease trap pumpings and domestic septage are discharged into a permitted septage detention and treatment facility located adjacent to the compost pad. Every 6 weeks to 3 months, solids are removed from the large separated tank and moved by truck and backhoe to the compost pad. The solids are mixed with the bulking material on the compost pad used the backhoe. The blended material is then shaped into windrows approximately 8 to 12' wide and 5 to 7' high. Domestic septage is screened and filtered through bulking material to remove the solids at the Septage Facility. The blended material is then mixed with the grease and bulking material in the windrows.

Windrows remain in place for 30 to 90 days depending on the need for space. Temperatures are maintained at or above 131 degrees for at least 15 days. Windrows are turned at least five times while the temperatures are above 130 degrees. Temperatures are monitored almost every workday with a three foot temperature probe.

Finished product is removed from the facility and stored off site.

- (D) The facility is sheltered from high winds by surrounding topography and can be moistened if necessary to prevent blowing. Surface water run-on is

controlled and windrows will be turned more often to provide aeration if heavy rains cause wetness. Snow and freezing conditions have not hindered operation of the facility. All operations can be delayed for a few days if necessary to wait for snow to melt.

(E) Noise will be controlled by only operating equipment during regular working days. Odor will be controlled by coverings windrows with bulking materials. Dust will be controlled by maintaining proper moisture levels. The facility is not located near a dense residential development.

(F) Finished product will be sold or given to the public. Finished product is removed from the facility by backhoe and dump truck. Un-useable compost will be re-blended and composted again or transported to the Macon County Landfill for disposal.

7.

(A) Design capacity is approximately 500 yards year. There is room for expansion noted on the site plan.

(B) See attached

(C) No shredding is done at the facility. Mixing and proportioning are done with the backhoe bucket.

(D) Process duration from blending until distribution is 60 days to 6 months.

(E) Temperatures are measured almost every working day and are recorded 2 to 3 places in each windrow. Temperatures are taken from the center portion of the windrows.

(F) Temperatures will be maintained at or above 131 F for at least 15 days and turned at least 5 times during that period to meet pathogen reduction and vector attraction requirements. Temperature readings will be maintained to demonstrate that temperatures requirement have been met.

(G) Aeration will be through turning with a backhoe. The windrows can be 5 times per day if needed.

(H) Run-on is controlled by the topography around the facility and the elevation of the pad. Runoff from normal rainfall events is directed into the tank next to the facility.

8

Label will indicate.

Compost meets class A standards of the NC Solid Waste Compost Rules. Finished product is recommended for use as a mulch.

**Application rates are 1/2 to 1 inch as a mulch. No restrictions unless dictated by the NC Solid Waste Rules. Do not recommend applying directly over vegetable plants immediately before harvest.**

- 9. There is no manufactured compost equipment at this facility.**
- 10. Operation and Maintenance Manual is attached.**

## **OPERATION AND MAINTENANCE INSTRUCTIONS**

**Grease trap pumpings or bulking agents that domestic septage has been filtered through are moved from the septage detention and treatment facility to the compost pad when ready to make windrows. A base of bulking material at least 12 inches thick with a berm of bulking material around it is laid out on the pad to begin forming the windrow. The grease trap pumpings are placed on the bulking material and the combination is mixed with the backhoe. After the material is well mixed, it is placed in a windrow with the backhoe. One backhoe bucket of grease is normally mixed with two buckets of bulking material.**

**Any foreign material found in the bulking material, septage or grease trap pumpings are removed during mixing. Foreign material is placed in a trash can for removal as necessary to the Macon County Landfill.**

**Windrows are formed eight to ten feet wide the bottom and five to seven feet high. The windrows run from the front of the pad to the back. The completed windrow should contain enough moisture that the blend will feel moist but water cannot be squeezed out of the blend.**

**Temperature recorded normally begins the day after the windrow is formed. Readings are normally taken in the morning. A three foot temperature probe is used to monitor temperatures. The probe is kept in the B&B Concrete office, adjacent to the facility. Temperatures are normally checked in 2-4 places in the windrows depending on the length of the windrow. Temperatures are recorded and records are maintained in the office. The probe is normally inserted into the middle portion of the windrow.**

**The initial windrow turning normally occurs approximately two weeks after formation when the windrow temperature rises above 131F. Windrows may be turned sooner if temperatures do not rise. Windrows will be turned every 3 to 7 days while temperatures are above 131F. At least five turnings are made while the temperature is above 131F.**

**Curing is primarily allowed to occur in the windrows. Finished compost that has met the pathogen reduction and vector attraction reduction requirements and appears to be stable is moved to an off site storage area. Some curing may occur at the storage area.**

**Samples of the compost are collected from each windrows and maintained until six months of window samples have been collected. The material is then sent to the NCDA Waste Analysis lab to be analyzed for metals, nutrients, soluble salts and carbon nitrogen ration. A separate sample is taken every six months from a finished windrow and sent to a private lab for analysis for fecal coliform. Sterile techniques are used when pathogen samples are taken. Samples are put in a cooler and transported directly to the lab.**

Compost that does not meet the NC Solid Waste Compost Rule standards as class A will be re-composted or will be taken to the Macon County Landfill.

An annual report is submitted to the NC Division of Waste Management by August 1 of each year for the previous July 1 - June 30. The report will contain the information required in .1408 of the Solid Waste Compost Rules.

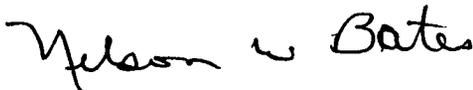
A front end loader is available for use if the backhoe is not available for turning or blending. All waste is brought to the facility by Company employees so non conforming waste should not be a problem. Any foreign material will be removed before or after composting. Vectors and odors are controlled by covering the windrows with bulking material, as necessary. Fires can be controlled with equipment at the facility and by calling the local fire department.

An annual report will be prepared every year and submitted to the Solid Waste Section. The report will be submitted by August 1<sup>st</sup> of each year for the prior July 1 to June 30. Each annual report will include at a minimum:

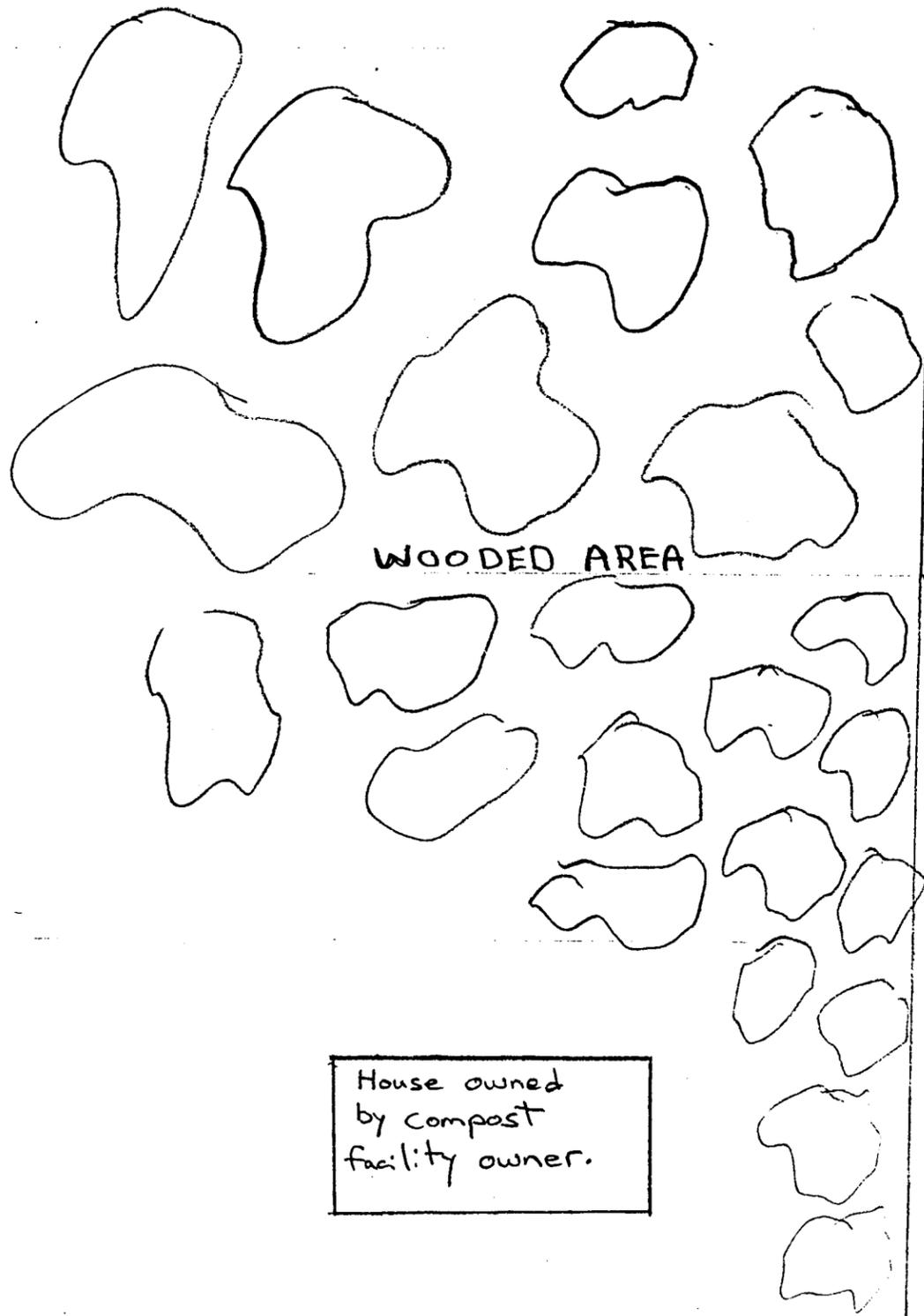
1. The facility name, address and permit number.
2. The total quantity in tons of waste received at the facility.
3. The total quantity in tons of waste processed into compost during the year.
4. The total quantity in tons and type of compost produced at the facility.
5. The total quantity in tons of compost removed from the facility by product classification.
6. Monthly temperature monitoring.
7. Results of testing for pathogens, metals and man made inerts.

Sincerely,

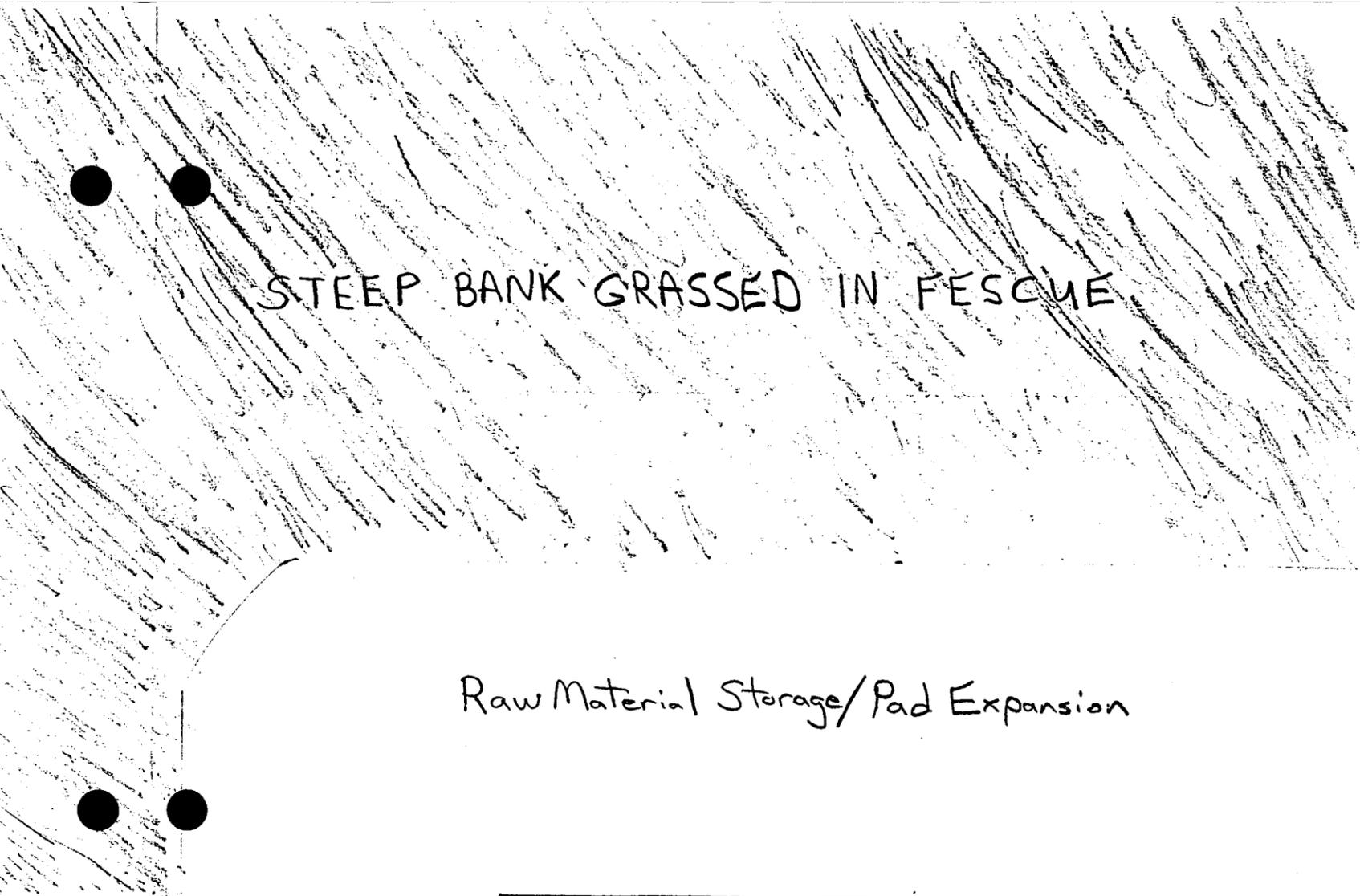
B&B CONCRETE PRODUCTS, INC.



Nelson W. Bates, President  
1687 Georgia Road  
Franklin NC 28734

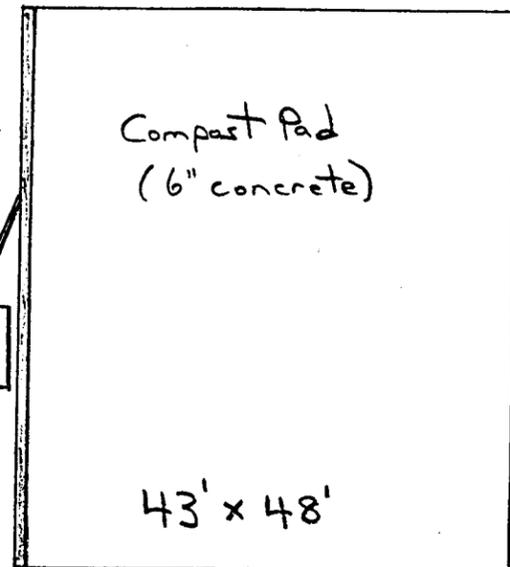


Road



Raw Material Storage/Pad Expansion

Pad graded to gutter on south side. Leachate piped to Tank.



1" = 16'

**MACON COUNTY**  
**PROJECTS & DEVELOPMENT**  
**CODE ENFORCEMENT DIVISION**

Macon County Human Services Building  
1834 Lakeside Drive  
Franklin, NC 28734  
Phone 828.349.2072 or 349.2073 Fax 828.524.2653



July 23, 2003

B&B Concrete Products  
c/o Nelse Bates  
via hand delivery

Mr. Bates:

Per your request, I am writing this letter to confirm the points of our discussion earlier today concerning land use controls as they relate to your business property. As I mentioned earlier, there is currently no zoning in the unincorporated areas of Macon County.

Only the municipal areas of Franklin and Highlands currently possess zoning ordinances. As you mentioned, B&B Concrete Products property is located outside of these incorporated jurisdictions.

Sincerely,

Byron L. McClure

County Planner

6.28615 (451 A)  
9860

(1027)  
1.5  
621

A)

4763

(28)

(271)

(42)

1.16 A  
3359

(216)

(173)

(633)

(1091)

25 A

(236)

28 A

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(420)

(164)

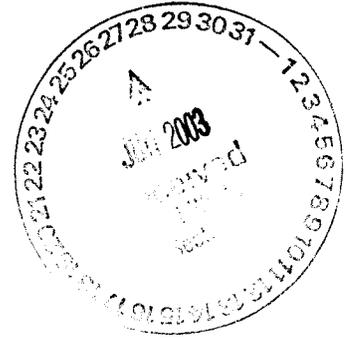




**B&B CONCRETE PRODUCTS, INC.**

1687 GEORGIA ROAD  
FRANKLIN NC 28734

PH. 828-524-6483 FAX 828 524 5194



June 23, 2003

Mr. Ted Lyons  
Division of Solid Waste Management  
401 Oberlin Road - Suite 150  
Raleigh NC 27605

Dear Mr. Lyons:

The results of the man made inerts test as of June 20, 2003 are as follows:

5 gallon bucket- 18.5 lbs. - 2.5 lbs for bucket - 16 lbs.

Found 1 individual coffee creamer container

Sincerely,

B&B CONCRETE PRODUCTS, INC.

*Nelson Bates*

Nelson W. Bates, President

NWB/wv

cc: Jim Patterson  
NC Solid Waste Section  
852 Merrimon Avenue  
Asheville NC 28804

# B&B CONCRETE PRODUCTS, INC.

1687 GEORGIA ROAD  
FRANKLIN NC 28734

JUNE 23, 2003

PH. 828-524-6483 FAX 828 524 5194

Mr. Ted Lyons  
Division of Solid Waste Management  
401 Oberlin Road - Suite 150  
Raleigh NC 27605



Dear Mr. Lyons:

We are listing below information on composting project.

May 7, 2002	30 yds wood waste 12 yds rest. grease	142 degree ave. temp. Pile turned 5 times.
July 3, 2002	24 yds wood waste 12 yds. rest. grease	135 degree ave. temp. Pile turned 5 times.
Aug. 23, 2002	30 yds wood waste 15 yds. rest grease	137 degree ave. temp. Pile turned 5 times.
Sept. 4, 2002	24 yds. wood waste 12 yds. rest. grease	139 degree ave. temp. Pile turned 5 times.
Dec. 6, 2002	24 yds. wood waste 12 yds. rest. grease	140 degree ave. temp. Pile turned 5 times.
Jan. 3, 2003	12 yds. wood waste 6 yds. rest. grease	134 degree ave. temp. Pile turned 5 times.
Mar. 7, 2003	24 yds. wood waste 12 yds. rest. grease	135 degree ave. temp. Pile turned 5 times.
April 24, 2003	24 yds. wood waste 12 yds. rest. grease	135 degree ave. temp. Pile turned 5 times.

Sincerely,

B&B CONCRETE PRODUCTS, INC.

*Nelson Bates*  
Nelson W. Bates, President  
NWB/wv

(Enclosing copy of Pace Analytical report.)

CC: Mr. Jim Patterson, 852 Merrimon Ave., Asheville NC 28804

June 17, 2003

Mr. Nelson Bates  
B & B Concrete  
1629 Georgia Road  
Franklin, NC 28734

RE: Lab Project Number: 9245087  
Client Project ID: Compost sample

Dear Mr. Bates:

Enclosed are the analytical results for sample(s) received by the laboratory on June 4, 2003. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,



Tom Williams  
Tom.Williams@pacelabs.com  
Project Manager

Enclosures

Laboratory Certification IDs  
NC Wastewater 40  
NC Drinking Water 37712

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

Laboratory Certification IDs  
TN Drinking Water 02980  
SC Environmental 99030



Lab Project Number: 9245087  
Client Project ID: Compost sample

Solid results are reported on a dry weight basis

Lab Sample No: 923019855      Project Sample Number: 9245087-001      Date Collected: 06/03/03 09:00  
Client Sample ID: COMPOST      Matrix: Soil      Date Received: 06/04/03 13:30

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
<b>Microbiology</b>								
Fecal Coliform MPN Solid	Method: SM 9221B/E							
Coliform, Fecal	ND		1	06/06/03	ACL			
<b>Metals</b>								
Metals, Trace ICP	Prep/Method: EPA 3050 / EPA 6010							
Arsenic	1.6	mg/kg	0.84	06/10/03 16:43	LBG	7440-38-2		
Cadmium	ND	mg/kg	0.17	06/10/03 16:43	LBG	7440-43-9		
Chromium	7.4	mg/kg	0.33	06/10/03 16:43	LBG	7440-47-3		
Copper	35.	mg/kg	0.33	06/10/03 16:43	LBG	7440-50-8		
Lead	5.2	mg/kg	0.84	06/10/03 16:43	LBG	7439-92-1		
Nickel	4.9	mg/kg	0.84	06/10/03 16:43	LBG	7440-02-0		
Selenium	1.5	mg/kg	0.84	06/10/03 16:43	LBG	7782-49-2		
Zinc	66.	mg/kg	1.7	06/10/03 16:43	LBG	7440-66-6		
Date Digested	06/06/03			06/06/03				
<b>Mercury, CVAAS, in Soil</b>								
Mercury	Method: EPA 7471							
	0.031	mg/kg	0.0084	06/09/03	LBG	7439-97-6		
<b>Wet Chemistry</b>								
Percent Moisture	Method: % Moisture							
Percent Moisture	40.3	%		06/06/03 11:17	CBJ			

Date: 06/17/03

Page: 1 of 8

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NC Drinking Water 37712

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SC Environmental 99030



Lab Project Number: 9245087  
Client Project ID: Compost sample

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**PARAMETER FOOTNOTES**

Inorganic Wet Chemistry Analyses were performed at our Pace Asheville laboratory and Organic and Metals testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit

Date: 06/17/03

Page: 2 of 8

Laboratory Certification IDs  
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**QUALITY CONTROL DATA**

Lab Project Number: 9245087  
Client Project ID: Compost sample

QC Batch: 75459  
QC Batch Method: EPA 3050  
Associated Lab Samples: 923019855

Analysis Method: EPA 6010  
Analysis Description: Metals, Trace ICP

METHOD BLANK: 923025936  
Associated Lab Samples: 923019855

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Arsenic	mg/kg	ND	0.50	
Cadmium	mg/kg	ND	0.10	
Chromium	mg/kg	ND	0.20	
Copper	mg/kg	ND	0.20	
Lead	mg/kg	ND	0.50	
Nickel	mg/kg	ND	0.50	
Selenium	mg/kg	ND	0.50	
Zinc	mg/kg	ND	1.0	

LABORATORY CONTROL SAMPLE: 923025944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Arsenic	mg/kg	25.00	26.90	108	
Cadmium	mg/kg	25.00	26.70	107	
Chromium	mg/kg	25.00	26.80	107	
Copper	mg/kg	25.00	26.70	107	
Lead	mg/kg	25.00	26.70	107	
Nickel	mg/kg	25.00	26.50	106	
Selenium	mg/kg	25.00	26.80	107	
Zinc	mg/kg	25.00	27.10	108	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 923025951 923025969

Parameter	Units	923019855 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Arsenic	mg/kg	1.631	41.03	43.17	34.10	101	106	23	2
Cadmium	mg/kg	0.1560	41.03	42.02	31.51	102	102	29	2
Chromium	mg/kg	7.366	41.03	49.08	41.86	102	112	16	

Date: 06/17/03

Page: 4 of 8

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SC Environmental 99030



**QUALITY CONTROL DATA**

Lab Project Number: 9245087  
Client Project ID: Compost sample

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 923025951 923025969

Parameter	Units	923019855	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Copper	mg/kg	35.16	41.03	90.28	71.89	134	119	23	1
Lead	mg/kg	5.190	41.03	46.78	37.55	101	105	22	2
Nickel	mg/kg	4.939	41.03	45.96	37.05	100	104	21	2
Selenium	mg/kg	1.534	41.03	44.81	34.84	106	108	25	2
Zinc	mg/kg	66.30	41.03	116.9	111.0	123	145	5	1

SAMPLE DUPLICATE: 923025977

Parameter	Units	923017727	DUP	RPD	Footnotes
		Result	Result		
Arsenic	mg/kg	3.000	2.700	10	
Cadmium	mg/kg	ND	ND	NC	
Chromium	mg/kg	4.300	4.000	7	
Copper	mg/kg	4.800	5.500	14	
Lead	mg/kg	2.500	1.800	31	1
Nickel	mg/kg	5.200	4.700	9	
Selenium	mg/kg	ND	ND	NC	
Zinc	mg/kg	16.00	15.00	6	

Date: 06/17/03

Page: 5 of 8

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SC Environmental 99030







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**QUALITY CONTROL DATA PARAMETER FOOTNOTES**

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS(D) Laboratory Control Sample (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit
- RPD Relative Percent Difference
- [1] The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- [2] The calculated RPD was outside QC acceptance limits.

**REPORT OF LABORATORY ANALYSIS**

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