

# North Carolina

DEPARTMENT OF HEALTH & HUMAN SERVICES

DIVISION OF PUBLIC HEALTH

## HEALTH HAZARDS CONTROL UNIT

DATE 11/20/97

TO NAME Donna Wilson

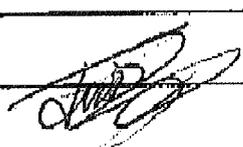
COMPANY DENR - Solid Waste

FAX NUMBER 733 - 4810

FROM Jeff Dellinger

NUMBER OF PAGES (INCLUDING COVER) 3

MESSAGE C & D Guidelines involving Asbestos



PHONE NUMBER - (919)707-5950

FAX NUMBER - (919) 870-4808

ADDRESS -US Postal Service: 1912 MAIL SERVICE CENTER, RALEIGH NC 27699-1912

ADDRESS - FEDEX/UPS: 5505 Six Forks Rd 2<sup>nd</sup> Floor D-1, Raleigh, NC 27609

If you have any problems receiving this fax, or any questions regarding the content please call (919) 707-5950

9-19-05cw

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF PUBLIC HEALTH  
HEALTH HAZARDS CONTROL UNIT

## GUIDELINES FOR HANDLING ASBESTOS-CONTAINING BUILDING MATERIALS AT C & D RECYCLING CENTERS IN NORTH CAROLINA

Asbestos is the name given to a naturally occurring group of minerals composed of tiny, easily inhaled fibers. In the past, asbestos was added to a variety of building materials to provide strength, heat insulation, and fire resistance. Breathing airborne asbestos fibers can lead to an increased risk of serious diseases, including asbestosis, lung cancer, and mesothelioma.

Recycling of asbestos-containing building materials may result in asbestos fibers becoming airborne. For this reason, demolition or construction debris that contains asbestos may not be recycled and must be disposed of in a landfill permitted to accept asbestos-containing materials. By prohibiting asbestos-containing materials from entering the waste streams at recycling centers, exposure to facility employees, downstream recyclers, and the general public who may use the recycled products, can be eliminated.

Guidelines for assuring that asbestos-containing materials do not enter a recycling center's waste streams are discussed below:

1) An On-site Representative, who has successfully completed an approved asbestos Contractor/Supervisor training class, should be present at the facility during all hours of operation.

The National Emission Standards for Hazardous Air Pollutants (NESHAP), specifically 40 CFR 61.145(c)(8), requires that an On-site Representative must be present on any site where regulated asbestos-containing material (RACM) is handled or disturbed. The On-Site Representative—usually a foreman, management-level person, or other authorized representative—must be trained in the provisions of the NESHAP and the means of complying with them. Asbestos Abatement Contractor/Supervisor training, including annual refresher training, meets the training requirements specified in the NESHAP regulation for the On-site Representative.

2) Water should be immediately available throughout the recycling facility, as necessary, to eliminate dust production and migration. There should be a provision for mister units along any shakers, conveyers, or picking lines to provide dust control. In some cases, sprinklers may be installed along the tops of earthen berms surrounding a recycling yard to provide dust control.

3) Loads of mixed waste arriving at the facility should be examined by personnel trained to identify suspect asbestos-containing materials. Any loads which include recognizable suspect asbestos-containing material should not be processed or recycled. Even if wetted, these materials should not be crushed, shredded, or otherwise processed prior to transport for disposal.

4) Suspect materials entering the facility should be separated, wetted and covered until it can be determined whether they are asbestos containing. Sampling of any suspect materials that arrive at the facility must be conducted by a North Carolina accredited asbestos Inspector.

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 DIVISION OF PUBLIC HEALTH  
 HEALTH HAZARDS CONTROL UNIT

If asbestos-containing materials are found to have entered the waste stream, the area around these materials should be properly marked and the materials wetted and covered. North Carolina accredited personnel will be required to clean up the contaminated site in accordance with all applicable regulations and transport the asbestos-containing waste materials to a properly permitted landfill.

*For further information on disposal facilities in North Carolina, contact the NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section at 919-733-0692.*

5) The posted and advertised list of unacceptable items for recycling should include any asbestos or asbestos-containing materials.

Asbestos has been used in more than 3,000 building products and can be found in homes, public, commercial, and industrial facilities. Building products containing asbestos include, but are not limited to, the following:

- insulation on boilers, tanks, steam pipes, water pipes and ducts;
- cement water pipes;
- cementitious siding or roofing shingles;
- ceiling tile (all forms);
- asphalt shingles and asphalt and felt roofing applications;
- wallboard (sheetrock) and mud joint compound;
- sprayed-on or trowelled-on surfacing materials on walls or ceilings;
- insulation on/in walls, ceilings, decks, or beams (including vermiculite);
- floor tiles and sheet vinyl floor coverings;
- and many more.

Many of these products are imported into the United States and may be currently available for sale.

**For additional information on the requirements for handling asbestos-containing materials, including copies of applicable regulations, please contact the Health Hazards Control Unit at 919-733-0820.**

3/20/01; revised 12/31/03

**Subject:** [Fwd: Re: Soundside Recycling Permit # 27-05 information]

**From:** Ed Mussler <Ed.Mussler@ncmail.net>

**Date:** Mon, 19 Nov 2007 10:23:48 -0500

**To:** Paul Crissman <paul.crissman@ncmail.net>, Donna Wilson <donna.wilson@ncmail.net>, Mark Poindexter <mark.poindexter@ncmail.net>

Please see the response attached. Donna, can you make sure we keep the county in the loop where appropriate, as we process this information.

thanks

ed

---

**Subject:** RE: Soundside Recycling Permit # 27-05 information

**From:** "Ben Woody" <bwoody@co.currituck.nc.us>

**Date:** Mon, 19 Nov 2007 09:48:22 -0500

**To:** "Ed Mussler" <Ed.Mussler@ncmail.net>

Mr. Mussler,

Thank you for your prompt response in regard to the Soundside Recycling permitting process. Your initial explanation was informative and has already cleared up some questions our Board of Commissioners have. As a result, the County plans to postpone any further action on our local permit until we have received the technical review letter from the State.

I also want to apologize if we inconvenienced you or your staff in any way. In the future we will certainly avoid putting you or your staff in unreasonable situations. To ensure appropriate communication occurs in the future, I would ask that contact occur directly between your staff and me. Hopefully this will allow our County to stay better informed of your permitting processes, while requesting information in a more efficient and reasonable manner.

Again, thanks for your help with this issue.

Ben E. Woody, AICP  
Planning Director  
Currituck County  
PO Box 70  
Currituck County, NC 27929  
(252) 232.3055 x262  
[www.currituckgovernment.com](http://www.currituckgovernment.com)

-----Original Message-----

From: Ed Mussler [<mailto:Ed.Mussler@ncmail.net>]

Sent: Friday, November 16, 2007 12:31 PM

To: David Webb

Cc: [ben.barnes@ncmail.net](mailto:ben.barnes@ncmail.net); [charles.boyette@ncmail.net](mailto:charles.boyette@ncmail.net); [mark.poindexter@ncmail.net](mailto:mark.poindexter@ncmail.net); [paul.crissman@ncmail.net](mailto:paul.crissman@ncmail.net); Ben Woody; Donna Wilson; Michael Scott; Racy Newbern; Dennis Shackelford  
Subject: Re: Soundside Recycling Permit # 27-05 information

Dear Mr. Webb,

You have requested information on Soundside Recycling- Permit #27-05 in Currituck County. Hopefully this response will enable you to gain an understanding of where the process is and how it got there.

Mr. Newbern was granted a permit in July 2005, for continued operation of his facility until December 2005. On January 13, 2006 he sent us a

fax asking that his permit be extended for another year until December 2006. In August of 2006, Mr. Newbern sent a permit application package. In August of that year compliance action was initiated against the facility and all permitting ceased, pending the compliance action. A consent agreement was entered into with Mr. Newbern in January 2007. In the late summer of 2007, the Section agreed to continue to process the application as long as the terms of the Consent Agreement were being met.

In June of 2006, the North Carolina General Assembly passed a moratorium on the permitting of new landfills and directed the Division of Waste Management to study landfills, make a report, and subsequently assist in development of new statutes governing solid waste management in North Carolina. As you can imagine this was a considerable undertaking, exacerbated by staff changes, and an extended legislative session. When the bill was finally signed into law by Governor Easley, the Solid Waste Section had a backlog of over 130 permit applications, of which the Soundside application is but one small one.

Currently the permit is awaiting processing, and I have asked staff to begin looking at it and generating a technical review letter. That should be accomplished in the next two weeks. It is anticipated that additional information will need to be provided by the applicant, and his time frame to submit complete and acceptable additional information is unknown. The new information would have to be then reviewed.

Among the issues that we know will have to be addressed are the ownership of the property and what parcel will be used, and who owns it and what if any responsibility or listing on the permit will be required of any third party. Financial assurance for cleanup of the site will have to be determined and provided, a permit fee will have to be paid, and the compliance issues resolved, prior to any issuance of a permit. The Section must also assess the financial qualifications of Soundside.

Please let us know if there are any additional questions you may have  
Sincerely,  
Ed Mussler  
Permitting Branch Supervisor

David Webb wrote:

To All,

I need the following information on Soundside Recycling-Permit # 27-05

(owner Horatio Newbern, IV) in Currituck County.

Our Board of Commissioners has a public hearing Monday November 19th and my efforts to receive current information has been frustrated by staff

not being available in the Washington Regional Office. I have been attempting to speak with someone via phone since last Thursday and have not been successful.

Currituck County is reviewing the zoning permits for this site and considering if we will allow the continuation of the operation. In December 2005 the owner, Horatio Newbern IV agreed to relocate his operations to the rear of the property. Our interest is to gain an understanding on why this move has not been permitted to date and why

2  
years later there is no decision on the permit.

1. Dates of application to move the site to another part of the property.

2. The status of the application to move the site with an anticipated

permit decision date.

3. Current and past violations from Solid Waste since Soundside Recycling began operations in 2000.

Please let me know today if this information can be provided prior to the end of business Friday.

Thanks,

David Webb, AICP

Chief Planner

Currituck County

PO Box 70, Currituck, NC 27929

252-232-3055 x 256

FAX: 252-232-3026

**Re: Soundside Recycling Permit # 27-05 information**

**Content-Type:** message/rfc822

**Content-Encoding:** 7bit

**SOLID WASTE SECTION PERMIT APPLICANT COMPLIANCE REVIEW**

Instructions: Complete upper portion and submit this form to the Field Operations Branch Head.

Review Requested by: Donna Wilson Date Requested: 11-16-07

Type of Permit: CID TIP Check One: New Permit  Amendment

Date Application Received: August 29, 2006

Applicant Business Name: Soundside Recycling & Materials, Inc.

Applicant Mailing Address

Contact Name and Title: Horatio D. (Racy) Newbern, IV, President

Company: Soundside Recycling & Materials, Inc.

Street Address: 7565 Caratoke Hwy

City/State/Zip: Jarvisburg NC 279

Parent Company/Known Subsidiaries/Other known names business has operated under:

Composting demonstration

Known Counties of Operation: Currituck

Does the applicant have a past or current solid waste permit? Yes  No

If yes, write facility type: CID TIP, and permit #: 2705

Does the applicant have other DENR permits? Yes  No  Unknown

If yes, please specify DENR Division, permit type and permit #:

---

---

---



**Subject:** [Fwd: Soundside Recycling]  
**From:** Ed Mussler <Ed.Mussler@ncmail.net>  
**Date:** Fri, 16 Nov 2007 11:07:34 -0500  
**To:** Donna Wilson <donna.wilson@ncmail.net>

Comments from Chuck

---

**Subject:** Soundside Recycling  
**From:** "CHARLES.BOYETTE@ncmail.net" <CHARLES.BOYETTE@ncmail.net>  
**Date:** Fri, 16 Nov 2007 10:41:06 -0500 (EST)  
**To:** Ed.Mussler@ncmail.net  
**CC:** Dennis.Shackelford@ncmail.net

Ed:

I do not have time to do a good job of reviewing and commenting on the Soundside ops plan between now and noon. I spoke with the Chairman of the Currituck Co. Comm. this morning and he told me he had removed this item from the program of the meeting on the 19 TH.

However, here are a few comments--

1. engineered wood- He plans to handle this by composting but I have heard that the composting is not workng- please check with Mike Scott.

2.By pass material should be hauled off weekly- his plan states monthly.

3. Gypsum board- no time for processing this material is stated, in the old plan it was to be processed daily.

4.Leachate- I did not see any plan to handle this.

5. Drainage/Storm Water runoff- not addressed

6. Plans- do we have a layout showing all areas ?

7. Tipping floor- several of the specialists/supervisor have talked and we feel if the tipping floor had to be cleared each day it would go a long way toward preventing problems. In fact, I would like to see a requirement that they stop receiving waste if their operation is stopped/broke down so they do not get behind on processing.

Thanks for asking for our input on this matter.

Chuck

P.S. FYI- David Webb has not called me, or if he did he did not leave a message. He e-mailed me and asked the status of the permit and I e-mailed him back on Nov. 12. In that e-mail I asked if there was anything the County of Currituck wanted to see addressed and I have not received anything back from him.

|                            |                                     |
|----------------------------|-------------------------------------|
| <b>Soundside Recycling</b> | <b>Content-Type:</b> message/rfc822 |
|                            | <b>Content-Encoding:</b> 7bit       |

**Subject:** Soundside Recycling Permit # 27-05 information

**From:** "David Webb" <dwebb@co.currituck.nc.us>

**Date:** Thu, 15 Nov 2007 11:32:20 -0500

**To:** <ben.barnes@ncmail.net>, <charles.boyette@ncmail.net>, <ed.mussler@ncmail.net>, <mark.poindexter@ncmail.net>, <paul.crissman@ncmail.net>

**CC:** "Ben Woody" <bwoody@co.currituck.nc.us>

To All,

I need the following information on Soundside Recycling-Permit # 27-05 (owner Horatio Newbern, IV) in Currituck County.

Our Board of Commissioners has a public hearing Monday November 19th and my efforts to receive current information has been frustrated by staff not being available in the Washington Regional Office. I have been attempting to speak with someone via phone since last Thursday and have not been successful.

Currituck County is reviewing the zoning permits for this site and considering if we will allow the continuation of the operation. In December 2005 the owner, Horatio Newbern IV agreed to relocate his operations to the rear of the property. Our interest is to gain an understanding on why this move has not been permitted to date and why 2 years later there is no decision on the permit.

1. Dates of application to move the site to another part of the property.
2. The status of the application to move the site with an anticipated permit decision date.
3. Current and past violations from Solid Waste since Soundside Recycling began operations in 2000.

Please let me know today if this information can be provided prior to the end of business Friday.

Thanks,

David Webb, AICP  
Chief Planner  
Currituck County  
PO Box 70, Currituck, NC 27929  
252-232-3055 x 256  
FAX: 252-232-3026

**Subject:** Re:Soundside permit application

**From:** Ed Mussler <Ed.Mussler@ncmail.net>

**Date:** Tue, 23 Oct 2007 14:18:21 -0400

**To:** Racy Newbern <racysoundside@mchsi.com>

**CC:** Donna Wilson <donna.wilson@ncmail.net>, Ellen Lorscheider <ellen.lorscheider@ncmail.net>, mark.poindexter@ncmail.net, Dennis Shackelford <Dennis.Shackelford@ncmail.net>, CHARLES BOYETTE <CHARLES.BOYETTE@ncmail.net>, Sara Terranova <Sara.Terranova@ncmail.net>, Paul Crissman <paul.crissman@ncmail.net>, Michael Scott <Michael.Scott@ncmail.net>

Mr. Newbern,

Below are some answers to your questions.

We believe the activity that you are applying for is a substantial change to the approved permit, thus justifying the charge for a new permit and not a modification. A modification is where we change some small aspect of an already approved plan, not redesign or repermit a new activity essentially from the start, regardless of the location. The staff time is extensive.

Transfer stations must ship out the waste at the end of each business day. Some transfer stations have operation plans that allow them to remove some clean recyclables like metal and cardboard. The biggest issue with a transfer station is that the activity must be on an impervious surface in a building or protected from the weather.

Financial assurance is required for all solid waste activities, and there is no magic formula, it is case dependent. It is a function of the financial qualifications of the applicant, the nature of the potential problems and the type of waste. In general we look at the permitted rate of waste acceptance, take a weeks worth and then the cost for disposal at the nearest MSW or transfer station. For example if you were permitted for 100 tons per day, we would start with  $5X100X\$75=37500$ , with \$75 being the tip fee, hauling and loading. It could be higher, particularly if the nearest facility is a transfer station.

We are happy to take documents by email, in fact we are asking that applicants supply a pdf version of their documents for us since we are putting all our files on line.

It is our understanding that you are also conducting a compost demonstration on a separate piece of property. There would also be a permit fee associated with this activity when the demo period is over.

Ed Mussler

Racy Newbern wrote:

Mr. Mussler,

Thank you for responding to me yesterday. I have a few questions. Why do we have to have a new permit to move on the same site and not just a modification?

If we were to change to a transfer station could we pull out cardboard and metal? Would this change the financial assurance? Is a bond satisfactory for financial assurance? What is the formula for calculating this? Can I send the updated operations plan by e-mail?

\*SOUNDSIDE RECYCLING & MATERIALS, INC.\*

MULCH IT !!!

\*Racy Newbern\*  
/VP/Sec./

\*Soundside Recycling & Materials, Inc.\*  
7565 Caratoke Hwy  
Jarvisburg, NC 27947

<<http://maps.yahoo.com/py/maps.py?Pyt=Tmap&addr=7565+Caratoke+Hwy&csz=Jarvisburg%2C+NC+27947&country=us>>

[racysoundside@mchsi.com](mailto:racysoundside@mchsi.com) <<mailto:racysoundside@mchsi.com>>

tel:  
fax:  
mobile:

252-491-8666

<[http://www.plaxo.com/click\\_to\\_call?src=jj\\_signature&To=252-491-8666&Email=racysoundside@mchsi.com](http://www.plaxo.com/click_to_call?src=jj_signature&To=252-491-8666&Email=racysoundside@mchsi.com)>

252-491-5454

252-202-5247

<[http://www.plaxo.com/click\\_to\\_call?src=jj\\_signature&To=252-202-5247&Email=racysoundside@mchsi.com](http://www.plaxo.com/click_to_call?src=jj_signature&To=252-202-5247&Email=racysoundside@mchsi.com)>

/Add me to your address book.../ <[https://www.plaxo.com/add\\_me?u=47244687336&v0=90919&k0=52439262](https://www.plaxo.com/add_me?u=47244687336&v0=90919&k0=52439262)>

/Want a signature like this?/ <<http://www.plaxo.com/signature>>



*[Handwritten signature]*

## North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

May 23, 2007

Mr. H.D. (Racy) Newbern, IV  
Soundside Recycling, Inc  
7565 Caratoke Highway  
Jarvisburg, North Carolina 27947

Dear Mr. Newbern:

The Division of Waste Management, Solid Waste Section, has reviewed your request for approval of a Solid Waste Pilot Composting Permit south of Buster Newbern Road and east of US 158 in Currituck County. The site is on the same tract of land as a Septage Land Application Site, permit number 27-02. Your request is considered approved in accordance with the N.C. Solid Waste Management Rules, 15A NCAC 13B .1409 and subject to the following conditions:

- (1) The approval period is from receipt of this letter to June 1, 2008. If an extension is needed it must be requested by May 1, 2008 with a justification for the extension.
- (2) All compost operations; including windrows, waste receiving and storage areas, curing areas, product storage, and equipment operation; shall be maintained within the area reviewed by Ted Lyon and Michael Scott on May 16, 2007.
- (3) Composting at this site shall be limited to the materials specified in the application. Written approval must be received from the Solid Waste Section prior to the receipt of any other materials.
- (4) The site shall be prepared to control run-off and run-on. Best management practices shall be utilized for this purpose. All run-off from the site and any leachate generated shall be managed to prevent any impact to ground or surface waters. A full Solid Waste Compost facility permit will not be issued for this facility until the Division of Water Quality has issued a permit to manage the runoff from this facility or we have received a written Documentation from DWQ indicating that a permit is not necessary
- (5) This approval is subject to immediate revocation if activities on site result in a direct or potential threat to the public health or the environment or if significant odor problems are created. The Division of Waste Management reserves the right to apply any other requirements of 15A NCAC 13B Section .1400 as the Division deems necessary during the above approval period.
- (6) Operation of the facility and compost monitoring activities shall be in accordance with the approved application and Section .1406 of the Solid Waste Management Rules. Records of temperatures shall be maintained to show pathogen reduction and vector attraction reduction requirements have been met and shall be available to representatives of the Section upon request.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646

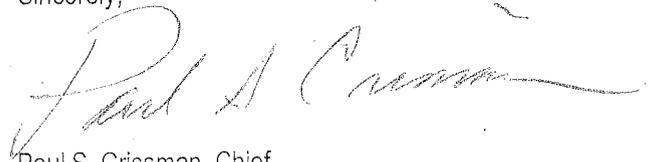
Phone 919-508-8400 \ FAX 919-715-3605 \ Internet <http://wastenotnc.org>

An Equal Opportunity / Affirmative Action Employer - Printed on Dual Purpose Recycled Paper

- (7) Compost testing, frequency of testing, and reporting of test results shall be in accordance with the approved application and Section .1408 of the Solid Waste Management Rules. Classification and distribution of compost shall be in accordance with Section .1407 of the Solid Waste Management Rules.
- (8) A written, monthly progress report shall be submitted to Mr. Chuck Boyette, Environmental Senior Specialist, indicating how much wood waste has been received at the facility, processed into compost, and distributed.
- (9) All compost shall be tested and the results approved by the Solid Waste Section prior to removal from the compost facility for any use.
- (10) Compost may not be land applied on the existing adjacent septage land application site, permit # SLAS-19-02 without approval from the Solid Waste Section.
- (11) Any changes or additions to this facility, subsequent to receipt of this letter shall be approved prior to the start of construction.
- (12) This approval is not transferable.
- (13) Composting may not begin until a pre-operation meeting has been held at the facility to review facility boundaries and operation. Facility boundaries will need to be marked during that visit.
- (14) Mr. Chuck Boyette, Regional Environmental Senior Specialist, will be responsible for oversight and inspection of the facility and related activities. Mr. Boyette can be contacted at 252-948-3913.

If you have questions concerning this approval please contact us at (919) 508-8400.

Sincerely,



Paul S. Crissman, Chief  
Solid Waste Section

cc: Chuck Boyette, Environmental Senior Specialist, Washington Regional Office  
Craig Coker, Coker Composting and Consulting

h:cla/compost/demo/approval/27-Currituck/Soundside Recycling\_05-07

Application for  
Solid Waste Composting Demonstration Permit  
Wood Wastes Composting Facility

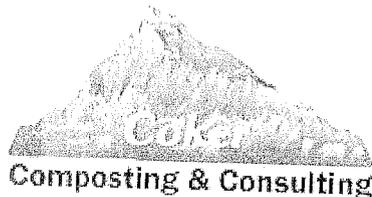
Submitted to:

Mr. Ted Lyon  
N.C. Dept. of Env. & Natural Resources  
Division of Waste Management  
Solid Waste Section  
401 Oberlin Rd.  
Ste. 150  
Raleigh, NC 27611

Submitted by:

Soundside Recycling, Inc.  
7565 Caratoke Highway  
Jarvisburg, NC 27947

Prepared by:



Coker Composting and Consulting  
3331 Glade Creek Blvd., Ste. 7  
Roanoke, VA 24012  
[www.cokercompost.com](http://www.cokercompost.com)

May, 2007

## **Introduction**

The purpose of this application is to request a Solid Waste Composting Demonstration Permit for a twelve (12) month period to compost a mix of ground engineered wood products (approximately 2,000 tons), nitrogen additive (liquid urea-ammonium nitrate [UAN] fertilizer, approximately 80 tons), marginally stable (but immature) compost (approximately 400 tons), and water.

The purpose of this demonstration is to investigate whether composting in turned open-air windrows is a viable recycling method for engineered wood products (EWP). Unlike clean dimensional lumber, this EWP fraction of the overall woody waste stream is not suitable for boiler fuel use. As it is a significant fraction of the construction debris wastestream, and as it is to be banned from MSW landfills in North Carolina in 2009, composting may offer a viable recycling outlet for EWP.

## **Who Is Involved?**

The landowners are:

Mr. Finley Newbern  
P.O. Box 24  
Powell's Point, NC 27966  
(252) 491-8424

Mr. H.D. Newbern III  
P.O. Box 189  
Powell's Point, NC 27966  
(252) 491-5744

The operator of the composting facility will be:

Soundside Recycling, Inc.  
7565 Caratoke Highway  
Jarvisburg, NC 27947  
(252) 491-8666

The Affidavits between both Messrs. Newbern and Soundside Recycling, Inc. authorizing Soundside Recycling, Inc. to operate the proposed composting facility on their property is included in Appendix A.

## **Location**

The site is located on Buster Newbern Rd., between Jarvisburg and Powell's Point, NC, approximately one-half (1/2) mile west of Caratoke Highway (U.S. Rt. 158). The location is shown on the Vicinity Map in Figure 1, and the Aerial photograph in Figure 2. The site is adjacent to the back corner of property used by Soundside Recycling for its construction debris recycling activities.

The site measures approximately 200 ft. wide by 1400 ft. long. The northernmost 500 ft. of the site is currently a sod farm, so will not be used for composting. In addition, a residence not owned or occupied by the permittee exists on the north side of the property (across Buster Newbern Rd.), so this exclusion will also comply with 15A NCAC 13B.1404(a)(3) for Type 1 (wood waste) facilities. As the site's property owner





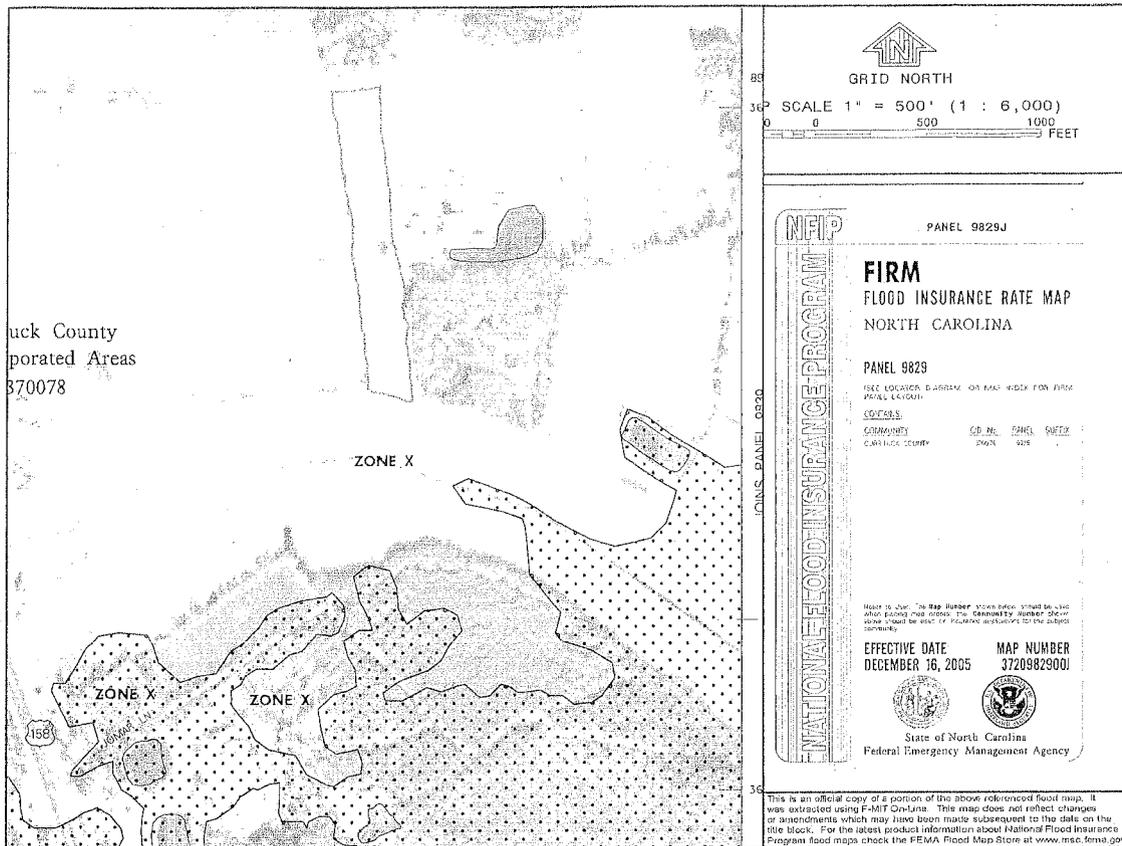


Figure 4 – Site Floodplains

### Wetlands

There are no wetlands on the site, as shown in Figure 5. There are wetland areas in the wooded tract adjacent to the site, but these wetlands will not be disturbed by composting project activities. The Currituck County GIS mapping used to create Figure 5 indicates that these wetland areas may extend onto the southern edge of this site, but this type of generic mapping is only generally accurate at larger scales. Composting operations will maintain a 50' buffer from these possible wetland areas.



Figure 5 – Site Wetlands

## Ingredients

The ingredients to be used in this demonstration project are EWP, fresh compost, urea-ammonium nitrate (UAN) liquid fertilizer and water.

The EWP is generated by Soundside's construction recycling activities and consists of an estimated 2,000 tons of a combination of plywood (approx. 45% of the total), oriented strand board (approx. 52% of the total), and laminated veneer lumber (approximately 3% of the total). These are generally high-carbon materials, although EWP made with urea-formaldehyde glue resins can have lower C:N ratios (the other type of widely-used EWP glue resin is phenol-formaldehyde, which does not depress C:N ratios). Samples of this material have been analyzed by the NC Dept. of Agriculture and Consumer Services and the resulting Waste Analysis Reports are included in Appendix C.

The fresh compost will be Leprechaun Row Crop compost, as made by McGill Environmental Systems in Harrells, NC. This is an industrial-biosolids compost that has met Process to Further Reduce Pathogens (PFRP) time-temperature requirements but is only marginally stable and is still immature. This "fresh" compost is needed to both inoculate the pile with beneficial microbes as well as to provide energy (derived from volatile solids) to the composting process. A copy of a recent compost quality analysis from McGill is included in Appendix C.

UAN fertilizer is a widely-available agricultural commodity that has a fertilizer rating of 32-0-0. This high-nitrogen material is needed to offset the high-carbon of the EWP.

The estimated quantities of each ingredient and the proposed mix ratios are presented in Table 1.

Table 1  
Demonstration Project Material Quantities and Mix Ratio

| INGREDIENTS               | <u>UAN Liquid Fertilizer</u> | <u>Water</u> | <u>McGill-Leprechaun Row Crop Compost</u> | <u>Plywood</u> | <u>OSB</u> | <u>LVL</u> | <u>TOTAL MIX</u> |
|---------------------------|------------------------------|--------------|---|----------------|------------|------------|------------------|
| C (% AS IS)               | 0.1                          | 0            | 32  | 50.4           | 50         | 48.9       |                  |
| N (% AS IS)               | 32                           | 0            | 2.73                                      | 0.2            | 0.1        | 0.3        |                  |
| MOISTURE%                 | 98                           | 100          | 46.37                                     | 11             | 15         | 14.7       |                  |
| UNITS IN MIX BY WGT (LB)  | 120,000                      | 3,000,000    | 800,000                                   | 1,800,000      | 2,080,000  | 120,000    | 7,920,000        |
| UNITS IN MIX BY WGT (T)   | 60                           | 1,500        | 400                                       | 900            | 1,040      | 60         | 3960             |
| UNITS IN MIX BY VOL (CY)  |                              |              | 800                                       | 4719           | 5454       | 315        | 11288            |
| UNITS IN MIX BY VOL (GAL) | 14,388                       | 359,712      |   |                |            |            |                  |
| DENSITY (LBS/CY)          | 2223                         | 1684         | 1000                                      | 381.4          | 381.4      | 381.4      |                  |
| RELATIVE DENSITY          | 1.00                         | 0.76         | 0.45                                      | 0.17           | 0.17       | 0.17       |                  |
| TOTAL POUNDS              | 0                            | 0            | 800,000                                   | 1,800,000      | 2,080,000  | 120,000    |                  |
| POUNDS OF CARBON          | 120                          | 0            | 256,000                                   | 907,200        | 1,040,000  | 58,680     | 2,262,000        |
| POUNDS OF NITROGEN        | 38,400                       | 0            | 21,840                                    | 3,600          | 2,080      | 360        | 66,280           |
| C:N RATIO                 | 0.00                         | #DIV/0!      | 11.72                                     | 252.00         | 500.00     | 163.00     | <b>34.13</b>     |
| POUNDS OF MOISTURE        | 117,600                      | 3,000,000    | 370,960                                   | 198,000        | 312,000    | 17,640     | 4,016,200        |
| NUMBER OF UNITS           | 120,000                      | 3,000,000    | 800,000                                   | 1,800,000      | 2,080,000  | 120,000    | 7,920,000        |
| PERCENT MOISTURE          |                              |              |   |                |            |            | <b>50.71</b>     |
| Amendment unit costs      | \$296                        |              | \$16.50                                   |                |            |            |                  |
| Amendment total costs     | \$17,760                     |              | \$13,200                                  |                |            |            |                  |

**Notes:**

1. Assumed 2,000 tons on-site, 45% ply, 52% OSB, 3% LVL
2. Moisture of wood based on cleanly cut sample, not on field sample
  - . Actual wood wastes in field likely to be wetter, reducing amount of water needed

**Facility Sizing**

1. Assumptions
  - a. Only the accumulated wood waste to be processed (2,000 tons) included
  - b. Mixing of fresh compost, urea and wood waste assumed to be done with mixer
  - c. Windrows to be turned with rubber-tired front end loader
  - d. Spacing between windrows 15' to allow FEL to pick up & move windrow
2. Composting Pad Area needed

|   |        |          |
|---|--------|----------|
| a. Total volume of material to be mixed and composted     | 11288  | CY       |
| b. Assume each windrow is 14' wide x 8' high              |        |          |
| c. Volume in each windrow per linear foot =               | 2.77   | CY/LF    |
| d. Total linear footage of windrows needed =              | 4075   | LF       |
| e. Assume each windrow is 150' long                       | 150    | LF       |
| f. Total number of windrows needed =                      | 27     | windrows |
| g. Area of windrows = (27 windrows)(14' wide x 150' long) | 57050  | SF       |
| h. Area of aisles = (26 aisles)(15' wide x 150' long)     | 58500  | SF       |
| j. Total processing area needed                           | 115550 | SF       |
|   | 2.65   | acres    |

## Methodology

The data presented in Table 1 is based on processing all of the estimated 2,000 ton stockpile of ground-up EWP. Due to site constraints, composting all of this material will have to be done in two (2) "batches". This will allow Soundside to adjust mix ratios or other operating parameters as needed between batches. All of the ground-up EWP can be processed within the twelve-month demonstration permit life cycle. The procedures described below will be used for each batch.

The EWP currently in inventory at Soundside Recycling has been processed by the company's horizontal grinder, equipped with a 4" x 5" screen. This stockpile, which contains some pieces too large for composting, will be screened with the company's trommel screen; with the fines going to composting and the "overs" going back for regrinding with the horizontal grinder. Soundside may retrofit the horizontal grinder with a 2" x 2" screen, thus allowing them to bypass the initial screening step.

The ground EWP, the compost and the liquid UAN will be mixed using a mechanical mixer such as a mulch colorizer or an agricultural feed mixer. Water will be added during the mixing process to ensure initial moisture content of 55%. The mixed material will be moved by truck to the designated windrow area and a rubber-tired loader will form fourteen (14) windrows, each 14' wide by 8' tall by 150' long. Each windrow will be oriented perpendicular to the long axis of the site and have a 15-ft. aisle between windrows to allow for equipment movement.

Aeration will be provided by the natural "chimney effect" of a porous compost windrow. Windrows will be turned with a loader to mix and homogenize the material. An empty windrow "space" will be provided at one end of the row of windrows. Soundside will turn the windrows by moving and remixing each windrow into the empty space adjacent to it; then will repeat the process in the other direction at the next turning. During windrow turnings, moisture content will be monitored with a "squeeze test", and, if needed, additional moisture will be added from a 9,000-gal. water tanker-trailer used in the construction debris recycling activities.

Windrows will be composted for 120 – 150 days, or until compost pile temperatures decrease to ambient air temperatures and stay at that level after two (2) consecutive turnings. Compost will be screened using the Soundside trommel screen. Screened

compost will be tested for regulatory parameters and formaldehyde (see Recordkeeping below) and if acceptable, authorization to distribute the compost will be sought from DENR's Division of Waste Management. The "overs" from the screening process will be sold as "enhanced mulch".

**Monitoring and Recordkeeping**

Temperatures of the windrows will be monitored daily during weekdays for the first 30 days (or until the PFRP requirement of 15 consecutive days above 131 deg. F. is achieved), and then every three days thereafter, using a Reotemp 36" windrow thermometer. The windrow temperature monitoring log included in Table 2 will be kept up to date. Temperature readings will be taken every twenty-five (25) feet along each side for the length of the windrow, and at a depth corresponding to the approximate middle of the windrow.

Table 2  
Windrow Temperature Monitoring Log

| Windrow No. ____ |             |             | Windrow No. ____ |             |             | Windrow No. ____ |             |             |
|------------------|-------------|-------------|------------------|-------------|-------------|------------------|-------------|-------------|
| Distance (ft)    | Temp. (°F.) | Temp. (°F.) | Distance (ft)    | Temp. (°F.) | Temp. (°F.) | Distance (ft)    | Temp. (°F.) | Temp. (°F.) |
|                  | (left)      | (right)     |                  | (left)      | (right)     |                  | (left)      | (right)     |
| 0                |             |             | 0                |             |             | 0                |             |             |
| 25               |             |             | 25               |             |             | 25               |             |             |
| 50               |             |             | 50               |             |             | 50               |             |             |
| 75               |             |             | 75               |             |             | 75               |             |             |
| 100              |             |             | 100              |             |             | 100              |             |             |
| 125              |             |             | 125              |             |             | 125              |             |             |
| 150              |             |             | 150              |             |             | 150              |             |             |
| 175              |             |             | 175              |             |             | 175              |             |             |
| 200              |             |             | 200              |             |             | 200              |             |             |
| 225              |             |             | 225              |             |             | 225              |             |             |
| 250              |             |             | 250              |             |             | 250              |             |             |
| 275              |             |             | 275              |             |             | 275              |             |             |
| 300              |             |             | 300              |             |             | 300              |             |             |
| 325              |             |             | 325              |             |             | 325              |             |             |
| 350              |             |             | 350              |             |             | 350              |             |             |

Moisture content will be tested with a "squeeze test". Estimates will be done on the initial material to be composted and every week in the actively composting windrows. If moisture levels drop below approximately 40-45%, water will be added to the windrows before turning from a water tanker-trailer.

Finished compost will be tested at the completion of each windrow. Samples will be sent to NCDA for a Waste Analysis Report (including regulated heavy metals) and separate samples will be sent to Research Triangle Park Laboratories, Inc. (8109 Ebenezer Church Road, Raleigh, NC 27612-7307) for analysis of metals not available from NCDA and for formaldehyde analysis using EPA Method 8315A, Determination of

Carbonyl Compounds by High Pressure Liquid Chromatography, which has a detection limit of 23.2 micrograms per liter.

Operational logs will be maintained for the composting project. These logs will include: quantities of feedstocks used (in cubic yards), temperature readings, moisture content determinations, and quantities of compost produced (in cubic yards).

### **Final Report**

At the conclusion of the composting project, a final report will be prepared and submitted to the Division of Waste Management. The report will include: all operational details of the composting project, all monitoring data, laboratory test results on the finished compost, and a narrative on the overall success of the project.

**APPENDIX A**

**Site Usage Approval Affidavits**

# **SOUNDSIDE**

## **RECYCLING & MATERIALS, INC.**

*Recycling New Construction Waste in Currituck County*

I grant permission for Soundside Recycling & Materials, Inc. to operate a composting operation on land that I own located at 117 Buster Newbern Rd. and surrounding land for setbacks. I understand that if Soundside Recycling & Materials, Inc. does not clean up the site it will become my responsibility.

H.D. Newbern



date

4-19-07

7565 Caratoke Highway • Jarvisburg, NC 27947

252-491-8666 Phone • 252-491-5454 Fax

# **SOUNDSIDE**

## **RECYCLING & MATERIALS, INC.**

*Recycling New Construction Waste in Currituck County*

I grant permission for Soundside Recycling & Materials, Inc. to operate a composting operation on land that I own located at 117 Buster Newbern Rd. and surrounding land for setbacks. I understand that if Soundside Recycling & Materials, Inc. does not clean up the site it will become my responsibility.

  
Finley Newbern

Date 4-20-07

7565 Caratoke Highway • Jarvisburg, NC 27947

252-491-8666 Phone • 252-491-5454 Fax

**APPENDIX B**  
**Site Soils Report**

*Ralph L. Hollowell, Jr.  
150 Doll Harrell Road  
Hertford, NC 27944*

Soundside Recycling & Materials, Inc.  
Racy Newbern  
7565 Caratoke Hwy.  
Jarvisburg, NC 27947

Re: Property located in Jarvisburg, NC, Currituck County, PIN# 0110-000-0004-0000,  
Composting facility

Mr. Newbern:

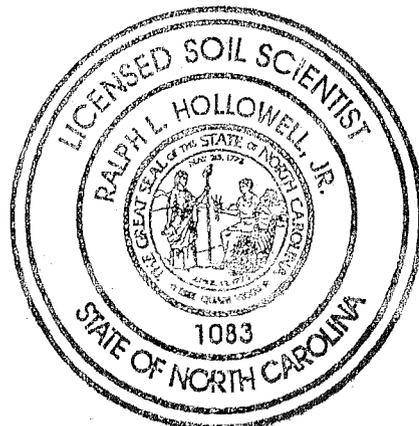
A single tract of land containing approximately 5+/- acres was examined to determine the potential of the site to host a composting operation. The soils on-site has been investigated and found acceptable; however, the Division of Waste Management must make the final decision.

The site is characteristically flat and level in the upland area. This topography is typical of the Coastal Plain. The slope appears to be less than 2% throughout. There is a shallow depressed area located on the westerly side. The soils information necessary to develop design criteria for any land based composting facility must address the agronomic and engineering properties of the soil material. This information is gathered by literature and by examining the soil resources onsite. In support of this evaluation, soil profiles were examined by evaluating soil materials from a hand auger and to a depth of 42 inches.

The soil profiles indicate that there is a seasonal soil wetness ranging from 36-42 inches with predominantly a sandy loam texture. The seasonal wetness was indicated by soil color patterns prevalent in the boring. The bright iron (red) stains on the soil materials and the gray colors prevalent throughout the profile suggest the presence of seasonal saturation. This seasonal saturation is especially common during the winter months when rainfall is high and evapotranspiration is low. These conditions encourage the retention of liquid in the soil. The soil material encountered presents no major limitations for composting.

Thank you.

  
Ralph L. Hollowell, Jr., R.S., L.S.S.  
Registered Sanitarian  
Licensed Soil Scientist



Racy Newbern



Racy Newbern



## APPENDIX C

### NCDA Waste Analysis Reports

#### Soundside Samples

- S1 Plywood
- S2 Oriented Strand Board
- S3 Laminated Veneer Lumber



# Waste Analysis Report

3/14/2007

Grower: **Newbern, Horatio**  
7565 Caratoke Hwy  
Jarvisburg, NC 27947

Copies To:

Farm:

**Currituck County**

| Sample Information        |                                    | Laboratory Results (parts per million unless otherwise noted) |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
|---------------------------|------------------------------------|---|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|------------|-------------|------------------|-----------|-----------|-----------|-----------|-----------|----------------------------|--|--|
| <b>Sample ID:</b>         | <i>N</i>                           | <i>P</i>  | <i>K</i>              | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>C</i>         |           |           |           |           |           |                            |  |  |
| S1                        | Total 1946                         | 308   | 1156                  | 1837      | 386       | 428       | 113       | 48.2      | 31.5      | 10.2      | 42.9                       |            |             | 503839           |           |           |           |           |           |                            |  |  |
| <b>Waste Code:</b>        | <i>IN-N</i>                        |   |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
| NBS                       | -NH <sub>4</sub>                   | <i>Na</i>   | <i>Ni</i>             | <i>Cd</i> | <i>Pb</i> | <i>Al</i> | <i>Se</i> | <i>Li</i> | <i>pH</i> | <i>SS</i> | <i>C:N</i>                 | <i>DM%</i> | <i>CCE%</i> | <i>AlE(tons)</i> |           |           |           |           |           |                            |  |  |
| <b>Description:</b>       | <i>OR-N</i>                        | 2635  |                       |           |           |           |           |           |           | 5.59      | 68                         | 258.91     | 89.00       |                  |           |           |           |           |           |                            |  |  |
| Non-Composted             | <i>Urea</i>                        |   |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
| <b>Recommendations:</b>   | Nutrients Available for First Crop |   |                       |           |           |           |           |           |           |           | <i>lbs/ton (wet basis)</i> |            |             | Other Elements   |           |           |           |           |           | <i>lbs/ton (wet basis)</i> |  |  |
| <i>Application Method</i> | <i>N</i>                           | <i>P<sub>2</sub>O<sub>5</sub></i>                             | <i>K<sub>2</sub>O</i> | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>Na</i>        | <i>Ni</i> | <i>Cd</i> | <i>Pb</i> | <i>Al</i> | <i>Se</i> | <i>Li</i>                  |  |  |
| Broadcast                 | 0.69                               | 0.38  | 2.0                   | 0.98      | 0.21      | 0.23      | 0.06      | 0.03      | 0.02      | 0.01      | 0.02                       |            |             | 4.7              |           |           |           |           |           |                            |  |  |
| Soil Incorp               | 1.4                                | 0.63  | 2.2                   | 1.6       | 0.34      | 0.38      | 0.10      | 0.04      | 0.03      | 0.01      | 0.04                       |            |             | 4.7              |           |           |           |           |           |                            |  |  |

| Sample Information        |                                    | Laboratory Results (parts per million unless otherwise noted) |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
|---------------------------|------------------------------------|---|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|------------|-------------|------------------|-----------|-----------|-----------|-----------|-----------|----------------------------|--|--|
| <b>Sample ID:</b>         | <i>N</i>                           | <i>P</i>  | <i>K</i>              | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>C</i>         |           |           |           |           |           |                            |  |  |
| S2                        | Total 1186                         | 91.0  | 758                   | 3084      | 374       | 1083      | 148       | 114       | 17.8      | 10.6      | 4.69                       |            |             | 489152           |           |           |           |           |           |                            |  |  |
| <b>Waste Code:</b>        | <i>IN-N</i>                        |   |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
| NBS                       | -NH <sub>4</sub>                   | <i>Na</i>   | <i>Ni</i>             | <i>Cd</i> | <i>Pb</i> | <i>Al</i> | <i>Se</i> | <i>Li</i> | <i>pH</i> | <i>SS</i> | <i>C:N</i>                 | <i>DM%</i> | <i>CCE%</i> | <i>AlE(tons)</i> |           |           |           |           |           |                            |  |  |
| <b>Description:</b>       | <i>OR-N</i>                        | 903   |                       |           |           |           |           |           |           | 5.09      | 67                         | 412.44     | 85.78       |                  |           |           |           |           |           |                            |  |  |
| Non-Composted             | <i>Urea</i>                        |   |                       |           |           |           |           |           |           |           |                            |            |             |                  |           |           |           |           |           |                            |  |  |
| <b>Recommendations:</b>   | Nutrients Available for First Crop |   |                       |           |           |           |           |           |           |           | <i>lbs/ton (wet basis)</i> |            |             | Other Elements   |           |           |           |           |           | <i>lbs/ton (wet basis)</i> |  |  |
| <i>Application Method</i> | <i>N</i>                           | <i>P<sub>2</sub>O<sub>5</sub></i>                             | <i>K<sub>2</sub>O</i> | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>Na</i>        | <i>Ni</i> | <i>Cd</i> | <i>Pb</i> | <i>Al</i> | <i>Se</i> | <i>Li</i>                  |  |  |
| Broadcast                 | 0.41                               | 0.11  | 1.3                   | 1.6       | 0.19      | 0.56      | 0.08      | 0.06      | 0.01      | 0.01      | T                          |            |             | 1.6              |           |           |           |           |           |                            |  |  |
| Soil Incorp               | 0.81                               | 0.18  | 1.4                   | 2.7       | 0.32      | 0.93      | 0.13      | 0.10      | 0.02      | 0.01      | T                          |            |             | 1.6              |           |           |           |           |           |                            |  |  |



# Waste Analysis Report

3/14/2007

Grower: **Newbern, Horatio**  
7565 Caratoke Hwy  
Jarvisburg, NC 27947

Copies To:

Farm:

**Currituck County**

| Sample Information        | Laboratory Results (parts per million unless otherwise noted) |                                   |                       |           |           |           |           |           |           |           |                            |            |             |                       |           |           |                            |           |           |           |
|---------------------------|---|-----------------------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|------------|-------------|-----------------------|-----------|-----------|----------------------------|-----------|-----------|-----------|
| <i>Sample ID:</i>         | <i>N</i>  | <i>P</i>                          | <i>K</i>              | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>C</i>              |           |           |                            |           |           |           |
| S3                        | Total 2811  | 115                               | 620                   | 1711      | 324       | 267       | 95.8      | 50.9      | 10.6      | 6.19      | 41.7                       |            |             | 489509                |           |           |                            |           |           |           |
| <i>Waste Code:</i>        | <i>IN-N</i>   |                                   |                       |           |           |           |           |           |           |           |                            |            |             |                       |           |           |                            |           |           |           |
| NBS                       | -NH <sub>4</sub>  |                                   |                       |           |           |           |           |           |           |           |                            |            |             |                       |           |           |                            |           |           |           |
| <i>Description:</i>       | <i>OR-N</i>   | <i>Na</i>                         | <i>Ni</i>             | <i>Cd</i> | <i>Pb</i> | <i>Al</i> | <i>Se</i> | <i>Li</i> | <i>pH</i> | <i>SS</i> | <i>C:N</i>                 | <i>DM%</i> | <i>CCE%</i> | <i>ALE(tons)</i>      |           |           |                            |           |           |           |
| Non-Composted             | <i>Urea</i>   | 3571                              |                       |           |           |           |           |           | 7.15      | 77        | 174.14                     | 85.29      |             |                       |           |           |                            |           |           |           |
| <b>Recommendations:</b>   | <b>Nutrients Available for First Crop</b>                     |                                   |                       |           |           |           |           |           |           |           | <b>lbs/ton (wet basis)</b> |            |             | <b>Other Elements</b> |           |           | <b>lbs/ton (wet basis)</b> |           |           |           |
| <i>Application Method</i> | <i>N</i>  | <i>P<sub>2</sub>O<sub>5</sub></i> | <i>K<sub>2</sub>O</i> | <i>Ca</i> | <i>Mg</i> | <i>S</i>  | <i>Fe</i> | <i>Mn</i> | <i>Zn</i> | <i>Cu</i> | <i>B</i>                   | <i>Mo</i>  | <i>Cl</i>   | <i>Na</i>             | <i>Ni</i> | <i>Cd</i> | <i>Pb</i>                  | <i>Al</i> | <i>Se</i> | <i>Li</i> |
| Broadcast                 | 0.96  | 0.13                              | 1.0                   | 0.88      | 0.17      | 0.14      | 0.05      | 0.03      | 0.01      | T         | 0.02                       |            |             | 6.1                   |           |           |                            |           |           |           |
| Soil Incorp               | 1.9   | 0.22                              | 1.1                   | 1.5       | 0.28      | 0.23      | 0.08      | 0.04      | 0.01      | 0.01      | 0.04                       |            |             | 6.1                   |           |           |                            |           |           |           |



# Waste Analysis Report

12/4/2006

Grower: **McGill Environmental**  
 PO Box 61  
 Harrells, NC 28444

Copies To: USDA-NRCS-Sampson

Farm:

**Sampson County**

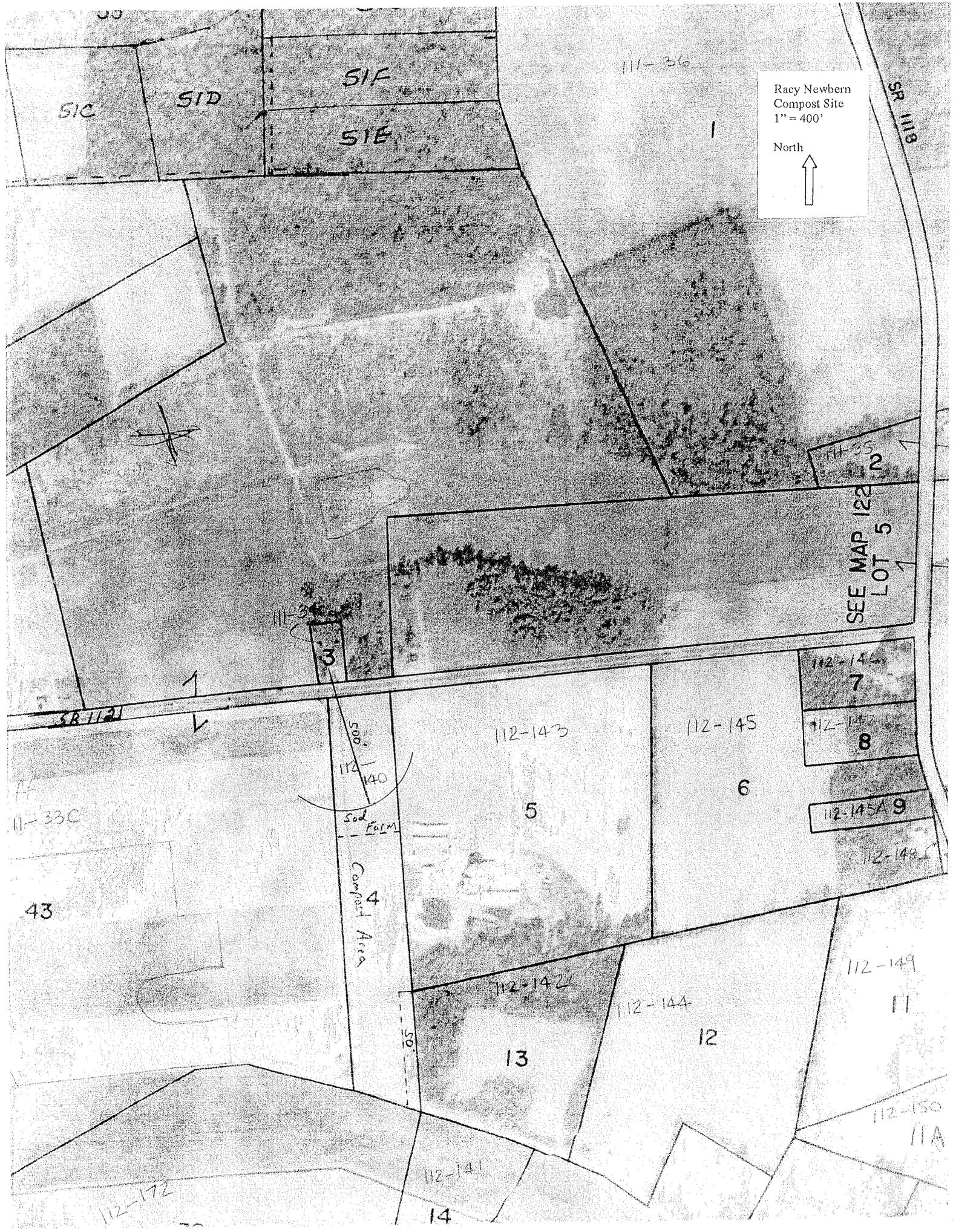
| Sample Information                      | Laboratory Results (parts per million unless otherwise noted) |                               |                  |      |      |       |      |       |      |      |     |                |       |      |           |        |    |    |    |    |
|---|---|-------------------------------|------------------|------|------|-------|------|-------|------|------|-----|----------------|-------|------|-----------|--------|----|----|----|----|
| Sample ID:<br>ROWCRO                    | N   |                               | P                | K    | Ca   | Mg    | S    | Fe    | Mn   | Zn   | Cu  | B              | Mo    | Cl   | C         |        |    |    |    |    |
|   | Total   | 27349                         |                  | 4694 | 5641 | 44908 | 2407 | 15122 | 5217 | 272  | 211 | 115            | 0.05  |      |           | 320638 |    |    |    |    |
| Waste Code:<br>FCP                      | -NH <sub>4</sub><br>-NO <sub>3</sub>                          |                               | Na               | Ni   | Cd   | Pb    | Al   | Se    | Li   | pH   | SS  | C:N            | DM%   | CCE% | ALE(tons) |        |    |    |    |    |
| Description:<br>Composted Poultry Waste | OR-N<br>Urea  |                               | 1755             |      |      |       |      |       |      | 6.6  | 470 | 11.72          | 53.63 |      |           |        |    |    |    |    |
| <b>Recommendations:</b>                 | Nutrients Available for First Crop                            |                               |                  |      |      |       |      |       |      |      |     | Other Elements |       |      |           |        |    |    |    |    |
| Application Method                      | N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | Ca   | Mg   | S     | Fe   | Mn    | Zn   | Cu   | B   | Mo             | Cl    | Na   | Ni        | Cd     | Pb | Al | Se | Li |
| Broadcast                               | 11.7  | 6.9                           | 5.8              | 28.9 | 1.6  | 9.7   | 3.4  | 0.17  | 0.14 | 0.07 | T   |                |       | 1.9  |           |        |    |    |    |    |
| Soil Incorp                             | 14.7  | 8.7                           | 6.5              | 36.1 | 1.9  | 12.2  | 4.2  | 0.22  | 0.17 | 0.09 | T   |                |       | 1.9  |           |        |    |    |    |    |

Nitrogen is very high in relation to carbon (Low C:N Ratio). If the waste product is to be used as a raw material in composting, blend it with another material with a high C:N ratio. The C:N ratio should be 20-30 for ideal composting conditions.

Soluble salt level is very high. The compost cannot be used as a landscape soil or potting media without blending other materials to lower soluble salts to an acceptable level. Very high soluble salts likely indicate very high nutrient availability. Take a matching soil sample to further evaluate pH and nutrient availability.

Compost pH is higher than ideal for plant production. If the compost will be used as a landscape or potting soil, blend other materials or add elemental sulfur to decrease pH to the desired range. As a general rule, add 0.25 lb. of elemental sulfur per cu. yd. of soil to lower pH 0.5-1.0 unit. One month after treatment, take a soil sample to determine if pH is within the desired range.

| Sample Information                      | Laboratory Results (parts per million unless otherwise noted) |                               |                  |      |      |       |      |       |      |      |      |                |       |      |           |        |    |    |    |    |
|---|---|-------------------------------|------------------|------|------|-------|------|-------|------|------|------|----------------|-------|------|-----------|--------|----|----|----|----|
| Sample ID:<br>PRODUC                    | N   |                               | P                | K    | Ca   | Mg    | S    | Fe    | Mn   | Zn   | Cu   | B              | Mo    | Cl   | C         |        |    |    |    |    |
|   | Total   | 21958                         |                  | 6238 | 2901 | 52640 | 2766 | 11957 | 5843 | 291  | 289  | 128            | 0.00  |      |           | 290145 |    |    |    |    |
| Waste Code:<br>FCP                      | -NH <sub>4</sub><br>-NO <sub>3</sub>                          |                               | Na               | Ni   | Cd   | Pb    | Al   | Se    | Li   | pH   | SS   | C:N            | DM%   | CCE% | ALE(tons) |        |    |    |    |    |
| Description:<br>Composted Poultry Waste | OR-N<br>Urea  |                               | 1172             |      |      |       |      |       |      | 7.06 | 192  | 13.21          | 43.96 |      |           |        |    |    |    |    |
| <b>Recommendations:</b>                 | Nutrients Available for First Crop                            |                               |                  |      |      |       |      |       |      |      |      | Other Elements |       |      |           |        |    |    |    |    |
| Application Method                      | N   | P <sub>2</sub> O <sub>5</sub> | K <sub>2</sub> O | Ca   | Mg   | S     | Fe   | Mn    | Zn   | Cu   | B    | Mo             | Cl    | Na   | Ni        | Cd     | Pb | Al | Se | Li |
| Broadcast                               | 7.7   | 7.5                           | 2.5              | 27.8 | 1.5  | 6.3   | 3.1  | 0.15  | 0.15 | 0.07 | 0.00 |                |       | 1.0  |           |        |    |    |    |    |
| Soil Incorp                             | 9.7   | 9.4                           | 2.8              | 34.7 | 1.8  | 7.9   | 3.9  | 0.19  | 0.19 | 0.08 | 0.00 |                |       | 1.0  |           |        |    |    |    |    |



Racy Newbern  
Compost Site  
1" = 400'  
North  
↑

SIC

SID

SIF

SIE

111-36

SR 118

111-35

SEE MAP 122  
LOT 5

112-146

7

112-147

8

112-148A

9

112-148

112-149

11

112-150

11A

SR 112a

11-33C

43

500'

112-140

Sod Farm

Compost Area

4

50'

112-143

5

112-145

6

112-142

13

112-144

12

112-141

14

112-172

**Subject:** Soundside Recycling

**From:** Mark Poindexter <Mark.Poindexter@ncmail.net>

**Date:** Mon, 08 Jan 2007 17:27:14 -0500

**To:** Toni Wyche Jones <Toni.Wyche.Jones@ncmail.net>

**CC:** ED MUSSLER <ED.MUSSLER@ncmail.net>, amy.annechino@ncmail.net

Toni,

In response to the compliance history request you submitted, Soundside Recycling was issued a notice of violation 11/8/2006. The violations noted in the NOV are unresolved.

--

Mark Poindexter  
Field Operations Supervisor  
NC DENR/DWM/SWS  
919-508-8513 (Office)  
919-733-4810 (Fax)

**SOLID WASTE SECTION PERMIT APPLICANT COMPLIANCE REVIEW**

Instructions: Complete upper portion and submit this form to the Field Operations Branch Compliance Officer.

Review Requested by: Toni Wyche Jones Date Requested: 01/05/07

Type of Permit: T&P Check One: New Permit \_\_\_\_\_ Amendment X

Applicant Contact and Business Name: Racey Newbern, Soundside Recycling

Parent Company/Known Subsidiaries/Other known names business has operated under:

Known Counties of Operation: Currituck

Does the applicant have a past or current solid waste permit? Yes X No \_\_\_\_\_

If yes, write facility type: T&P, and permit #: 27-05

*Toni,  
Is the email response I sent you sufficient?  
(M)*