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APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

Prepared for:

Coble's Sandrock, Inc.
5833 Foster Store Road
Liberty, North Carolina, 27298

Date 04/29/2011 By Patricia M. Backus
Attachment 1 Part II Document 14
Permit 01-05 Permit DIN 13652

**PERMIT MODIFICATION FOR
ASPHALT SHINGLES RECYCLING**

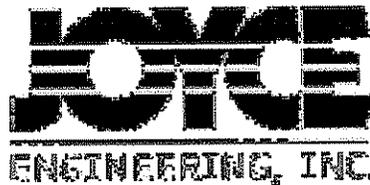
**COBLE'S SANDROCK, INC. C&D LANDFILL
PERMIT NO. 01-05**

ALAMANCE COUNTY, NORTH CAROLINA

FEBRUARY 2011

Revision April 2011

Prepared by:



2211 West Meadowview Road, Suite 101
Greensboro, North Carolina 27407
www.JoyceEngineering.com

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Drawing

No. 1 Shingles Recycling

Appendix A

Supply Specification

Supply Certification

Applicant Signature Page

1.0 General information

The owner and operator of the facility is:

Brenda and Kent Coble
Coble's Sandrock Construction and Demolition Landfill
5833 Foster Store Road, Liberty, NC 27298
Telephone: 336-565-4750, Fax: 336-565-4752
Email: Brendalcoble@bellsouth.net

The engineer for the facility is:

Joyce Engineering, Inc.
2211 West Meadowview Road, Suite 101, Greensboro, NC 27407

2.0 Operations Plan

The following addresses only the elements of operations plan concerning the management of asphalt roofing shingle scrap.

2.1 Strategies for clean and secure supply of scrap shingles.

Restrict supply to tear-off shingles from private residential buildings having four or fewer dwelling units. These residential buildings are not "regulated facilities" as defined by U.S. EPA NESHAP rules.

- a. Source Separated – The roofing contractor or hauler must separate out tear-off shingles and other roofing debris at the job site. Ideally, the shingles are loaded to a dedicated trailer or roll-off box, and the other roofing demolition/construction debris to another trailer or roll-off box. The source separated material will be unloaded at the facility to maintain the scrap shingles separate from other waste.
- b. Mixed Roofing Material – The roofing contractor may be instructed to load the tear-off shingles first at the bottom of the trailer or roll-off box, and then load the other roofing debris (wood, plastic, paper, metal, etc.) on top of the shingles. If tipped without mixing at the landfill, the debris should remain on top of the pile and is relatively easy to remove from the pile of shingles. Wood, plastic, paper, metal, etc. can be further separated for recycling and beneficial use.

Mixed loads containing demolition/construction debris will be disposed of in the C&D landfill without recycling the shingles.

- c. Marketing Plan – The facility should develop a comprehensive marketing plan based on multiple outlets and not just one buyer for the final recycled asphalt shingle (RAS) product. A diverse list of end users will help stabilize and sustain a shingle recycling business. The hot mix asphalt (HMA) is currently most mature and developed market

for the RAS products. Other markets, not as developed, include cement kilns as a fuel and mineral supplement, coal-fired fuel supplement in the production of electricity, supplement material for road base and subbase on road and parking area construction, light weight pavement for parking lots and driveways, cold patch for pavement pothole repairs, and for dust control on gravel roads by mixing with traditional gravel aggregates to cover rural unpaved roads. Other markets may have different requirements; contact the Section before supplying shingles to other markets.

2.2 Flow and management of the scrap shingles.

- a. Material acceptance – Publish a written specification for the type and quality of material acceptable and the criteria for rejecting loads. (Appendix A - an example).
- b. Inspect loads for compliance and acceptance.
- c. Supply certification form to be filled at the gate by hauler before unloading at the facility. (Appendix A - an example).
- d. The area dedicated for the RAS handling will be 100 feet by 100 feet (attached Drawing). A sign will be placed to indicate location for unloading shingles. Jersey barriers will be placed on three side of the area.
- e. Pre-sorted scrap shingles will be piled separate ready for transferring to end user.
- f. The facility will only recycle non-contaminated load of scrap shingles. Mixed loads containing debris will be disposed of in the C&D landfill without recycling the shingles as described in 2.1.b.
- g. When pre-determined quantity (a truck load) of post-consumer roofing shingles has accumulated, the shingles will be loaded and transported to the end user facility.

2.3 Equipment used at facility for material handling and processing.

Coble's Sandrock, Inc. will be using the existing landfill equipment for handling the RAS. The facility equipment currently includes a front loader for handling C&D material. The front loader is planned for the loading of the scrap shingles. With improvements in RAS economy and success in retaining multiple end users, the facility may upgrade the equipment and storage area.

2.4 Changes at the facility to accommodate management of shingles.

The facility will prepare an area dedicated for the RAS processing and handling (attached Drawing). All loads will be inspected before tipping to avoid re-handling of rejected loads. At the scalehouse the hauler will be given supply certification form to fill which identifies the load origin and type of material.

2.5 Facilities receiving transferred shingles.

Coble's Sandrock has contacted approved vendor for recycling the tear-off asphalt shingles for hot mix asphalt (HMA) production. Other end users will be researched for marketing and development of multiple outlets.

A letter of approval from the Health Hazards Control Unit will be required from each vendor for the vendor compliance with asbestos regulations.

2.6 Record keeping of scrap shingles at the facility.

The record keeping at the facility should consist of keeping track of every load of roofing shingles for recycling. Each load received must be signed by the hauler declaring the source of the shingles on the supply certification form. The material leaving the facility to the end user must be recorded. The load destined to recycling record should show the shipping weight, receiving location and date of delivery.

3.0 Financial Assurance

Owners and operators of C&DLF must provide proof of financial assurance to ensure closure of the site and to cover the costs. The Coble's C&D landfill is permitted to receive construction and demolition waste including roofing construction and demolition waste material. The permit modification for recycling of tear-off roofing shingles does not affect the landfill closure cost estimate or closure requirements, therefore; the current financial assurance approved by the Section provides for the financial assurance as required by the Rule .0546.

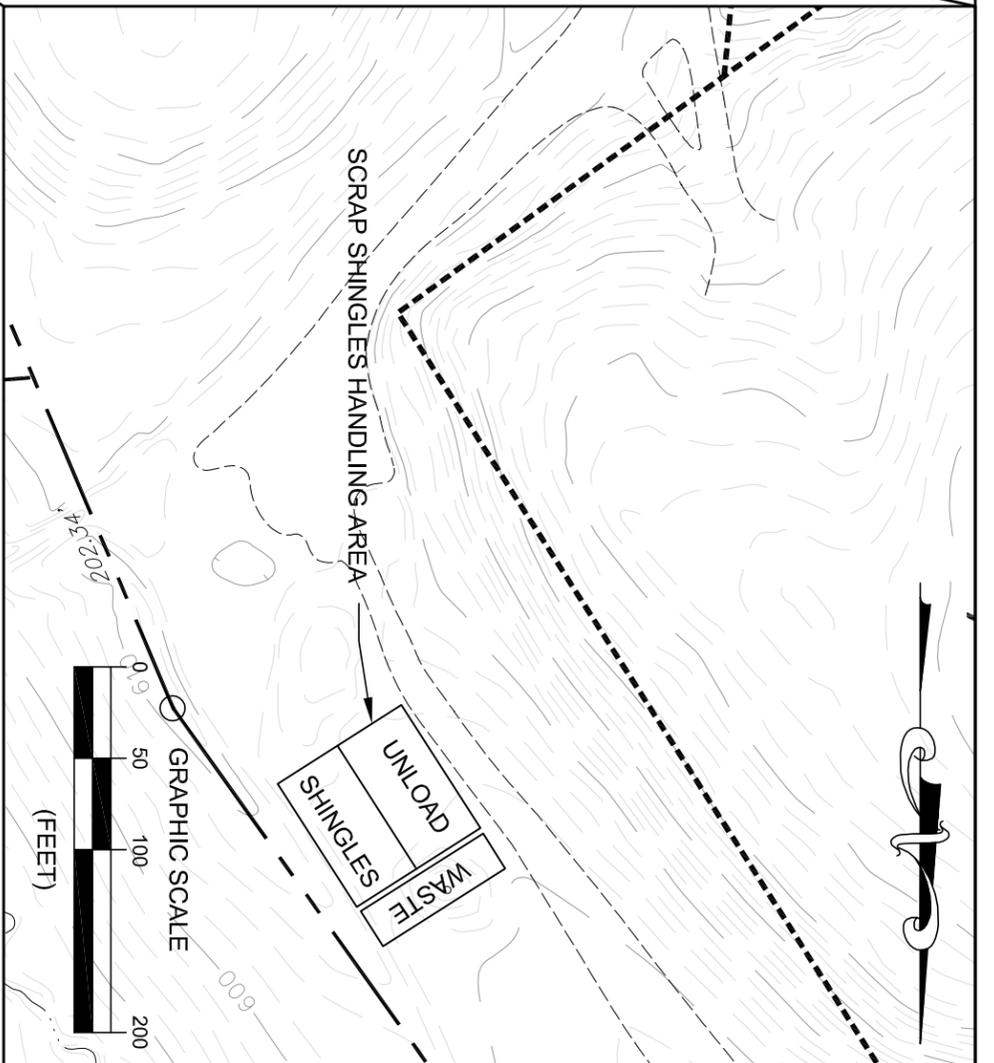
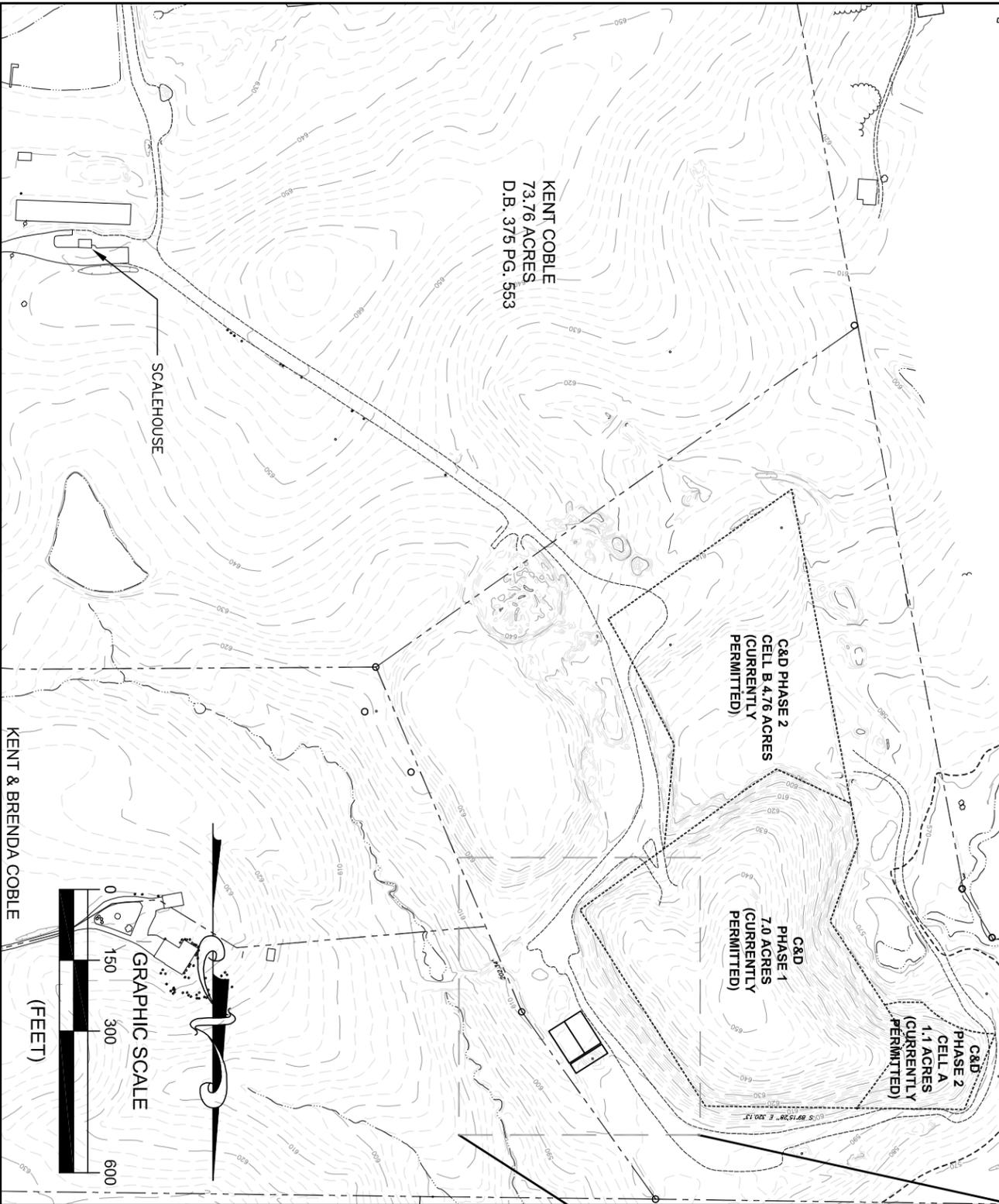
4.0 Applicant Signature Page

Applicant signature page is included in Appendix A.

5.0 Engineering Drawings

Attached site plan drawing indicates the recycled shingles waste unloading area, sorting area, and storage area. The sorted shingles may be stockpiled or placed in containers ready for transfer to the end user.

Drawing



PROJECT NO.
419.11.01.12

SCALE
AS SHOWN

DRAWING NO.
1

COBLE'S SANDROCK, INC
KIMESVILLE, NORTH CAROLINA

SHINGLES RECYCLING

JPE
ENGINEERING, INC.
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092
NO CORP LIC: C-0782

DESIGNED _____
DRAWN CADD/
CHECKED _____
APPROVED _____
DATE _____

DATE	REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

Appendix A

SUPPLY SPECIFICATION (Example)

**Source Separated Tear – Off Shingles
List of Acceptable / Unacceptable Items**

ROOFING WASTE ITEMS FOR RECYCLING

ACCEPTABLE MATERIAL

Scrap Shingles

Felt attached to shingles

UNACCEPTABLE MATERIAL

Wood

Paper

Plastic

Metal flashings, gutters, etc.

Nails (best effort)

Other Trash

SUPPLY CERTIFICATION (Example)

Roofing Company or Other Supplier of Tear-off Shingles

Delivery Company Name: _____

Address: _____

Contact: _____

Telephone: _____

Email: _____

The undersigned certifies that:

1. All tear-off scrap shingles came from residential buildings having four or fewer dwelling units.
2. These residential buildings are not “regulated facilities” according to state and federal NESHAP rules, and
3. The roofing waste material delivered consists of asphalt shingles and normal roofing construction debris only and contains no known hazardous material e.g. asbestos.

Residential roofing project address where tear-off shingles originated:

Address: _____

Company where the scrap shingles were delivered for processing:

Company: _____

Address: _____

Applicant Signature Page

Name of facility COBLE'S SANDROCK, INC. C&D LANDFILL

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that the information provided in this application is true, accurate, and complete to the best of my knowledge.

I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.

Hannu Kemppinen
Signature

Hannu Kemppinen
Print Name

FEB 11, 2011
Date

Senior Project Consultant
Title

Jayce Engineering, Inc.
Business or organization name



Waste Industry Experts

Joyce Engineering, Inc.
2211 West Meadowview Rd
Suite 101
Greensboro, NC 27407

tel: 336/323-0092
fax: 336/323-0093

www.JoyceEngineering.com

April 13, 2011

Pat Backus, P.E.
Permitting Engineer
Solid Waste Section
NC Department of Environment and Natural Resources
1646 Mail Service Center
Raleigh, NC 17699-1646

RE: **Coble's Sandrock, Inc. C&D Landfill
Application review – Asphalt Shingles Recycling
Response to Comments, Doc. ID No. 13312
JEI PROJECT NO. 419.1101.12, Task 02**

Dear Pat,

Joyce Engineering, Inc. has prepared responses below to your comments on behalf of the Coble's Sandrock, Inc. The responses address your comments of the letter dated March 17, 2011. The Section comments are repeated as they appear in the letter and the responses are in **bold font**.

1. Please include a statement at the beginning of item 2.0 to indicate that only tear-off scrap shingles from residential buildings having four or fewer dwelling units will be sorting for recycling as stated in the supply certification form. These building are not "regulated facilities" under NESHAP. This is a requirement in the Department of Health and Human Service, Health Hazards Control Unit (HHCU) approved plan that a shingle grinder must obtain.

Requested statement has been amended to the beginning of Section 2.0. The Coble's C&D LF has no plans to grind the shingles. The application is for transferring scrap shingles.

2. The application is being reviewed based on what is current practice for the hot mix asphalt market. There may be different requirements for other markets. Contact the Section before supplying shingles for other markets.

Requested statement regarding requirements and contacting the Section has been amended to item 2.1.c Marketing Plan.

3. Please remove "approximately" from item 2.2.d. as it is subjective and could be misinterpreted.

Correction has been made.

4. Please provide a drawing for the shingles area. Indicate the areas for unload, sorting, and storage. Also indicate how the areas will be designated. For example, some facilities are using signs to designate locations and "Jersey" barriers to allow flexibility on separating piles. Please also insure that it is not encroaching on the LCID limits. I cannot determine that from the drawing submitted.

April 13, 2011

Page 2

The drawing has been revised to address requested comments. Jersey barriers will be placed around the work areas. The RAS area has been relocated away from the LCID. The new location is adjacent to the access road to Phase 3A.

5. Item 2.1.a. indicates that mixed loads containing demolition/construction debris will be disposed in the C&D landfill without recycling the shingles, yet in item 2.2.f. , it is stated that the "mixed load will be sorted". Please clarify. Sorting of demolition debris would require meeting the requirements of a solid waste processing facility and an approved plan from the HHCUC.

Item 2.2.f has been modified to state that the mixed loads are placed in the landfill. The facility plans to do minimal sorting of C&D from the shingles. Only good loads will be recycled, mixed loads landfilled.

6. The plan does not include details on the sorting process. When will it occur (as the loads are received, daily, etc.)? Will an employee be at the area when shingles are unloaded? Will a container or dumpster be at the area to collect unacceptable material when sorting or will this be done differently? Please address this in the plan.

Item 2.2 Flow and management of the scrap shingles has been modified to address materials handling. The facility will do minimal sorting by removing C&D waste from the shingles. If the scrap load is acceptable the shingle material gets transferred, if not it gets landfilled.

7. All shingles have to be sorted, even what is described as pre-sorted shingle loads. Experience has shown that even though the suppliers are instructed, unacceptable material can be present. As noted in comment 5, the plan does not indicate oversight when materials are unloaded which might allow immediate detection. Please change item 2.2.e.

The facility is not poised to sorting the loads. Material handling and flow management are described in Item 2.2.

8. Item 2.2 g. indicates that sorted scrap shingles will be collected and stored in a pile for up to 90 days. The plan does not indicate an estimated daily volume nor will that piles be based on a date. I do not understand how the 90-day limit will be managed. Also, the plan does not indicate what will be done after 90 days. Also, what will be done if there is not enough room to store that amount in the designated area?

Item 2.2.g has been modified to address volume and storage time issue.

9. The Section is working with other departments and with paving industry representatives to better coordinate our efforts. I anticipate that the requirement to obtain the letter of HCCU approval from your customers will be eliminated. I will notify you if this occurs. However, your customers may require something from you indicating that shingles were from a residential "non-regulated" facility under NESHAPS as noted in comment 1.

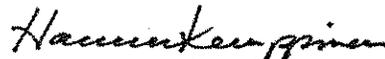
The comment regarding residential "non-regulated" facility has been included in the beginning of section 2.

April 13, 2011
Page 3

The above comments concentrate much on sorting and handling of the scrap shingles and the related health hazard to employees. The facility plans to recycle scrap shingles that are acceptable for recycling without sorting and handling of the loads. Thus asbestos related health hazard is not a concern. In accordance with the Guidance Document provided by the Section, the Coble's C&D LF is applying for permit to transfer asphalt shingle scrap to a facility permitted for grinding which has been approved by the Department of Health and Human Services, health Hazards Control Unit.

If you have further questions concerning this letter, please call me at your convenience.

Sincerely,
JOYCE ENGINEERING, INC.


Hannu Kemppinen, P.G.
Senior Project Consultant

Attachments

C: Brenda and Kent Coble
Ed Mussler, Geoff Little, SWS

Scanned By	Date	DOC ID	Permit
Backus	02/23/2011	13014	01-05



Waste Industry Experts

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February 11, 2011

Geoff Little, P.E
Engineer, SW Permitting Branch
Department of Environment and Natural Resources
Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1646



RE: **Coble's Sandrock C&D Landfill**
Application for Permit Modification for Roofing Shingles Recycling
JEI PROJECT NO. 4191101.12 Task 02

Dear Geof,

On behalf of Coble's Sandrock, Inc. we are submitting the enclosed application for Permit Modification to include roofing shingles recycling at the referenced facility. The Permit Modification application is intended to provide the information outlined in the application guidance document for solid waste facilities transferring asphalt shingle scrap to issue the permit that includes the shingles recycling.

In your review of the Phase 3 construction quality assurance report and the revised financial assurance information submitted last fall, please consider combining all three submittals into the permit modification.

If you have questions or comments concerning the enclosed application, please contact me at your convenience. I will be glad to assist you in your review to expedite the permit approval process.

Sincerely,
JOYCE ENGINEERING, INC.

A handwritten signature in cursive script that reads "Hannu Kemppinen".

Hannu Kemppinen, P.G.
Senior Project Consultant

Enclosure

C: Ed Mussler, Permitting Branch Supervisor, SWS, NCDENR
Brenda and Kent Coble, Coble's Sandrock, Inc.