



North Carolina Department of Environment and Natural Resources

Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

Solid Waste Section

October 17, 2009

Mr. Danny Bagley, Manager
Edgecombe County Solid Waste Management Department
P.O. Box 10
Tarboro, North Carolina 27886

Re: Additional Comments on Permit Application of Edgecombe County Construction and Demolition Debris Landfill (C&DLF), Continued Operations (Application)
Edgecombe County, North Carolina
Permit No. 33-01, Document ID No. (Doc Id) 8765

Dear Mr. Bagley:

The Division of Waste Management (DWM), Solid Waste Section has reviewed the 31 August 2009 letter and attached Application (Doc Id 8529), submitted by S&ME, Inc., on behalf of Edgecombe County, to respond the DWM's comments (Doc Id 6506) dated December 23, 2008. Based on the review Solid Waste Section has additional comments on the new submittal, and your responses to the following comments will expedite the review of the Application:

Section B – Operation and Waste Acceptance Plan

1. For Comment 8 dated December 23, 2008, please provide a copy of the approval letter of the Erosion and Sedimentation Control Plan dated May 22, 2009 issued by the Division of Land Resources, Land Quality Section.
2. (Section 2.1.1 – Waste Acceptance, Page 3) The recently effective Rule 15A NCAC 13B.0532 defines "C&D solid wastes" as solid wastes generated solely from the construction, remodeling, repair, or demolition operations on pavement and buildings or structures. C&D waste does not include municipal and industrial wastes that may be generated by the on-going operations at buildings or structures. The new rule prohibits the disposal of roof shingle waste from manufacturers and waste building materials from mobile home / modular home manufacturers, except under certain circumstances. The industrial waste normally must be disposed in a MSWLF or an industrial landfill, not a C&DLF. Provisions of the C&DLF rules could allow the waste to continue to be disposed of in the landfill if Edgecombe County and the manufacturers agree to adhere to disposal criteria as outlined below:

"Solid waste that is generated by mobile or modular home manufacturers and asphalt shingle manufacturers in Edgecombe County. The waste must be source separated at the manufacturing site and must exclude municipal solid waste, hazardous wastes, and other wastes prohibited from disposal in a C&DLF. It must be transported to the Edgecombe County C&DLF in a shipment or container that consists solely of the separated waste to be disposed. Edgecombe County C&DLF will not accept this waste if it has not been separated and transported as specified."

If Edgecombe County agrees with this suggestion, please replace “C&D like wastes” described in the Section 2.1.1 with the above-referenced description.

3. Because the proposed landfill gas collection and control systems (LFGCCS), which are mentioned in the Section 2.1.3 of the Closure Plan will be operated during the active-live span of the C&DLF, the Operations Plan needs to describe the routine inspection, repair, and maintenance requirements of the LFGCCS and how the installation and presence of the gas collection system will be coordinated with the day-to-day operation of the C&DLF unit. Please revise the Operations Plan accordingly.

Section B, Appendix IV – Manufactured Home Deconstruction Plan (the Plan)

4. Please propose the maximum numbers of manufactured homes will be allowed to stage/store in the working face at any time in the Plan.
5. Will the manufactured home be completely deconstructed at the same day as it delivered to the landfill facility? If not, please describe the maximum duration [please consider the periodical cover requirement stated in Rule .0542(f)(1)] that is required by trained personnel to completely deconstruct a manufactured home at the working face. Please revise the Plan accordingly.
6. Will the recyclable material removed from a manufactured home be transported to the designated stockpile areas such as white good staging area, convenience center, etc in the end of each working day? If not, the Plan needs to describe the maximum duration that recyclable material can be temporarily allowed to store in the working face. Additionally, any removed non-recyclable material must be disposed in the working face in the end of each working day. Please revise the Plan accordingly.
7. The Plan needs to discuss the special deconstruction approaches or methods to protect landfill personnel and environment when a manufactured home containing asbestos material is identified. The disposal asbestos-containing waste needs to be consistent with the proposed approaches described in the Section 2.1.2 in the Operation and Waste Acceptance Plan.

If Edgecombe County wants to conduct mobile home deconstruction activities at a designated area, not in the C&D waste working face but within the permitted landfill property boundaries, the two documents – an example of the operating plan and the operating guidance prepared by the Solid Waste Section are enclosed for your reference to prepare the Manufactured Home Deconstruction Plan.

Section D – Closure and Post-Closure Plan

8. (Section 2.1.3 Landfill Gas Collection System) This office understands the proposing LFGCCS will be subjected to change meeting the landfilling sequences; however, the Plan needs to provide the following information [please also see **Comment 3**]:
 - a. A brief description of the 3-phased LFGCCS as shown on Drawing 3 of 9 or provide a reference to the Section 4.5 of the Facility Plan.
 - b. Pursuant to Rule .1626(9)(a)(ii), gas condensate derived from a unlined MSWLF unit can not be placed in the unit; therefore, a plan needs to address, in a minimum, temporary on-site storage the condensate/leachate, spill prevention measures, and proper disposal of gas condensate including state and/or local permit approval and the information of a waste transporter and the waste water treatment plant.
 - c. Personnel training of operation and maintenance the LFGCCS. (for example, operating personnel completes the SWANA’s “Landfill Gas System Operations and Maintenance” training course). The training records must be placed in the on-site operating record.
 - d. Local zoning approval document for installation of LFG flare system.

- e. On Drawing 3 of 9, many existing gas vents are proposing to be capped. Will the capping be a temporary or permanent approach? If the vent is determined to be abandoned and/or un-functional and buried into the C&D wastes, the Plan needs to propose the abandonment in accordance with 15A NCAC 2C .0114(b). The well abandonment record (GW-30 form) which must be certified by a Licensed Geologist needs to be submitted to the DWM within thirty (30) days or a duration established by a mutual agreement after the task is completed.
- f. A plan defining the steps necessary to decommission the wells at the end of their useful life.
- g. All necessary approvals and permits from the Division of Air Quality, if applicable.
- h. Since the landfill unit is receiving or has accepted asbestos containing material or wastes for disposal, the Permittee needs to submit a work plan to the Health Hazards Control Unit of the Division of Public Health, Department of Health & Human Services for a review and approval prior to conducting new gas well installation (Phase II of the LFGCCS expansion). For preparing the work plan, please contact Mr. Jeff Dellinger, at phone 919-707-5950, or jeff.dellinger@ncmail.net for the details and requirements. A copy of correspondence/approval document issued by the Health Hazards Control Unit of the Division of Public Health needs to append to the construction completion documentations.
- i. Within thirty (30) days or a duration established by a mutual agreement between the County and DWM upon completion of the construction of each of the three (3) phases of LFGCCS, Edgecombe County must submit DWM the construction completion report which is certified by a professional engineer or geologist registered in the State of North Carolina. The report includes, but not limited to, brief description of the construction activities, as-built drawings, a set of color photos of major phases of construction, gas vent data (survey data, well construction record [GW-1b form] and/or abandonment record [GW-30 form], approval letters/permits from other state and local government, and QA/QC testing results.

Section D – Appendix VI Construction Quality Assurance (CQA) Plan

9. (Section 3.4.1 and Part 3.5.C of the Technical Specifications in Appendix VII) Please specify the minimum testing frequency of the permeability test (ASTM Method D5084) on the constructed (in-placed) low permeability layer.

Section D – Appendix VII Technical Specifications

10. Please provide the specifications of the air and condensation lines in Appendix VII. If HDPE piping will be used for air and condensation lines, the Section 02500 needs to clearly describe the purposes and specify the methods or approaches for pipe flushing/cleaning and hydrostatic pressure testing on the installed fluid conveyance system (including piping, fittings, valves, etc). To pursuant Rule .1626(9)(a)(ii), gas condensate derived from a landfill unit may not be placed in the unit unless the unit is designed with a composite liner. Therefore, to prevent leachate spillage from the conveyance system, no leachate/ condensation lines shall be used for LFGCCS until successful pressure testing is completed. The testing results shall be a portion of the CQA report in Appendix VI or of the construction completion report for each incremental phase development of LFGCCS.
11. (Section 02611, Part 3) Please add the specifications associated with gas well installation as part of Phase II of LFGCCS which include, but not limited to, drilling method, health and safety requirement, wastes disposal, decontamination of drilling equipment, criteria to terminate boring advancement (e.g. encounter groundwater, liquid/leachate, obstructions, etc)

Section F - Facility Plan

12. (Section 1.2) Please provide the property deed information of the landfill facility which can be appended to the Facility Plan.

13. (Section 2.1.1) Please replace the description of the “C&D like wastes” in the acceptable waste stream by the description below [Please also see **Comment 2**]:
“Solid waste that is generated by mobile or modular home manufacturers and asphalt shingle manufacturers in Edgecombe County. The waste must be source separated at the manufacturing site and must exclude municipal solid waste, hazardous wastes, and other wastes prohibited from disposal in a C&DLF. It must be transported to the Edgecombe County C&DLF in a shipment or container that consists solely of the separated waste to be disposed. Edgecombe County C&DLF will not accept this waste if it has not been separated and transported as specified.”
14. (Section 3.2) Rule .0537(c)(1) defines a phase is an area constructed that provides no more than approximately 5 years of operating capacity. The nomenclature for incremental phase development is usually identified by an Arabic number (such as Phase 1, 2, 3, ...) or a Roman numeral (Phase I, II, III,...) rather than number of year (A non-official way but adopted by the waste industry in North Carolina). In Table 1, please adding an Arabic number or a Roman numeral in a separate column next to the number of year.
15. (Section 3.4) The remaining operational life of the C&D unit is calculated by taking the remaining gross capacity (1,094,500 cy) of C&D unit minus the total soil required for landfill operation (final soil cover plus periodic soil cover = 300,000 cy as shown in Section 3.3 on Page 11), not the final soil cover volume alone, and multiplying that by the waste density. The remaining net air space of the landfill in tons is likely calculated as below:
- $$(1,094,500 \text{ cy} - 300,000 \text{ cy}) * 0.55 \text{ tons/cy} = \underline{436,975 \text{ tons}}$$
- Then, the remaining operational life of the C&D unit is
 $436,975 \text{ tons} / 12,600 \text{ ton/year} = \underline{34.7 \text{ year}}$
- If County agrees the approach to calculate operational life, please revise related figures, tables, Appendix IX, and texts in the application document.
16. (Section 4.1) This section needs to describe the Leachate Management System related to LFGCCS such as condensate tanks and sumps as shown on Drawing 6 of 7. The descriptions include, but not limited to, sizes of sump and tank, the second containment system, spill prevention measures, waste liquid disposal approach (the transporter and the disposal/treatment facility), and permit requirements. [Also see **Comment 8b**.]

Please timely respond the above-referenced comments and submit the Solid Waste Section a revised portions of the Application (one hard copy and an electronic copy), which incorporates the requested information. Additionally, the Solid Waste Section approves the cost estimates for groundwater corrective action, closure, and post-closure care of the Edgecombe County Landfill. The approved costs, in year 2009 dollar values, are \$2,342,000.00 for the 30-year groundwater corrective action program, \$905,587.00 for the closure of 21.7-acre landfill unit, the estimated largest area of the C&DLF unit requiring the specific cover system at any time during the five-year permitted period, and \$2,350,069.00 for the 30-year post-closure cares at 68-acre landfill unit. Pursuant to Rule .0547(4), within 30 days upon receiving this letter, Edgecombe County must submit the DWM a financial assurance document in accordance with Rule .1628.

In accordance with the NCGS 130A-295.2(h), effective August 1, 2009, Edgecombe County must also provide financial assurance sufficient to cover a minimum required amount of three million dollars (\$3,000,000.00) for potential assessment and corrective action at the facility. This financial assurance requirement is in addition to the financial responsibility requirements for site closure, post-closure cares,

and corrective actions. Please submit the requested financial assurance document within 30 days upon receiving this letter. Within the next 12 months, Edgecombe County will be required to evaluate the solid waste management facility to determine the estimated costs of potential assessment and corrective action based on the criteria established in the above-reference statute. Depending on this determination, the required financial assurance amount in the future may be higher than the minimum amount of three million dollars

The Solid Waste Section appreciates your efforts and cooperation in this matter. If you have any permitting questions, please contact me at (919) 508- 8507; and any questions associated with financial responsibility please contact Donald Herndon at (919) 508-8502.

Sincerely,



Ming-Tai Chao, P.E.
Environmental Engineer II
Permitting Branch, Solid Waste Section

Enclosures

cc:

John A. Moody, P.E., S&ME, Inc.
Donna Wilson, DWM
Dennis Shackelford, DWM
Donald Herndon, DWM

Ed Mussler, Permitting Branch Supervisor
Ervin Lane, DWM
Ben Barnes, DWM
Central Files

(Example) **MOBILE HOME DECONSTRUCTION
OPERATIONS MANUAL
ABC COUNTY C&D LANDFILL**

1.1 OVERVIEW

This Operations Manual was prepared for Mobile Home Deconstruction Area located adjacent to the ABC County Construction and Demolition Debris (C&D) Landfill. The Mobile Home Deconstruction Area is strictly for the deconstruction of mobile homes in order to recycle materials from the mobile homes. ABC County plans to recycle as many varieties of materials as possible as end users are available. Initially, scrap metal recycling will be conducted. Once an end-user of another material (i.e. glass) is located, these other materials may be recycled. Any non-recyclable material will be disposed of appropriately by the County upon completion of the deconstruction process.

The information contained herein was prepared to provide landfill personnel with a clear understanding of how the facility would be operated. While deviations from the operations outlined here may be acceptable, they should be reviewed and approved by the Design Engineer and the ABC County Solid Waste Manager.

1.2 CONTACT INFORMATION

All correspondence and questions concerning the operation of the ABC County Mobile Home Deconstruction Area should be directed to the appropriate County and State personnel listed below. For fire or police emergencies dial 911.

1.2.1 ABC County

ABC County Solid Waste Management Department
220 ABC County Landfill Road
Anytown, NC 21000
Phone: (311) 555-2122
Fax: (311) 555-7555

County Solid Waste Director: John Doe

1.2.2 North Carolina Department of Environment and Natural Resources

North Carolina Department of Environment and Natural Resources
[Regional office address, phone and contact person here]
[Raleigh office address, phone and contact person here]

Western Area Supervisor:
Waste Management Specialist:

Division of Land Resources - Land Quality Section:

[Name of contact here]

2.0 MOBILE HOME DECONSTRUCTION PROCESS

Mobile homes will be deconstructed using the following processes.

2.1 Access

Mobile home owners seeking disposal will contact the Landfill and be placed on a waiting list. No more than TWO (2) mobile homes will be allowed on-site for deconstruction at one time. Once space is available for a mobile home, the scale operator at the landfill will contact the next owner on the waiting list. The owner will have a 48 hour window in which to contact the Landfill with information regarding the delivery date and hauler. If owner can not arrange delivery within this initial 48 hour period, the owner may make alternate arrangements for delivery and must notify the Landfill a minimum of 48 hours prior to planned delivery. The delivered mobile home will not be weighed on the scales at time of delivery, but the owner will be charged based upon the size and dimensions of the mobile home.

If delivery is not made within 48 hours of the scheduled delivery date, the owners name will be placed on the waiting list and the owner will be notified. If an owner has more than one mobile home, they will be rotated with others on the waiting list.

2.2 Waste Disposal

All mobile homes must be free of garbage, household hazardous waste, and all other non-construction and demolition waste prior to acceptance by the landfill.

2.3 White Goods

White goods will be accepted with the mobile home. White goods will be removed using a track-hoe and handled in accordance with all State and Federal regulations. Any white goods containing CFC's will have them managed properly prior to removal of the white goods, and deconstruction of the mobile home.

2.4 Asbestos

Since asbestos may be located in the building materials of mobile homes constructed prior to 1983, all mobile homes built before 1/1/1983 will be thoroughly sprayed with water (both interior and exterior) to minimize dust. Upon demolition of a mobile home constructed prior to 1983, the waste generated will be placed in the C&D landfill and covered with six inches of soil or approved alternate daily cover.

2.5 Deconstruction of Mobile Homes

Once accepted, the mobile home will be placed in the mobile home deconstruction area. Mobile home deconstruction will be dependant upon weather conditions and manpower availability and will ONLY take place in the deconstruction area. Prior to deconstruction, mobile homes constructed before 1983 will be thoroughly sprayed with water to minimize dust (as noted above). The home will then be deconstructed using a track-hoe. The track-hoe will tear the trailer apart and lay the pieces on the ground to be separated by landfill personnel. The

personnel will separate the non-recyclable materials from the recyclable materials. Initially, scrap metal is planned for recycling. As other end-users for other materials are available, other materials may be separated for recycling. All material not planned for recycling will be placed in the C&D landfill before the end of the day in which the deconstruction takes place. Material from mobile homes constructed prior to 1983 will be covered prior to the end of the day. All recyclable materials will be stockpiled in the deconstruction area for future recycling. **NO OPEN FLAMES OR CUTTING WITH TORCHES WILL BE ALLOWED WITHIN 100 FEET OF THE C&D LANDFILL.**

2.6 Holding Time for Mobile Homes

All mobile homes must be deconstructed within 45 days from acceptance into the deconstruction area. Upon receipt at the landfill, the date shall be painted on the side or end of the mobile home, or on the frame, for identification purposes for Solid Waste Section personnel.

2.7 Holding Time for Recyclables

Once a recyclable material is removed from a mobile home, it may be stockpiled in the mobile home deconstruction area for up to 45 days. No materials shall be kept in this area for more than 45 days, nor shall they be stockpiled in other areas awaiting recycling.

3.0 RECORD KEEPING PROGRAM

The County shall maintain the following records related to the Mobile Home Deconstruction in an operating record at the landfill:

1. Mobile Home Acceptance records including dates and description;
2. Owner and hauler information for each mobile home;
3. Date of deconstruction for each mobile home and materials to be recycled;
4. Date and disposal information for all recycled materials to include location and vendor of recipient of recycled materials; and
5. Date and certification of CFC's removed.

The operating record will be kept up to date by the Solid Waste Director or his designee. It will be presented upon request to DWM for inspection. A copy of this Operations Manual will be kept at the landfill and will be available for use at all times.

NC DENR – DWM – SWS Field Operations and Compliance Branch

Operating Guidelines 1 | Page *Development History Note:* *Guidance was revised from an original undated document This Operating Guideline revised by FOG Team August 16, 2009* **Subject: Solid Waste Considerations for Disposal of Mobile**

Homes.

Mobile Homes may be deconstructed and disposed at permitted Construction and Demolition (C&D) or Municipal Solid Waste (MSW) landfill if approved in the facility operational plans. The county must submit a permit modification in order to change the approved permit to include Mobile Home Deconstruction. The following guidance should be adhered to for deconstruction and disposal:

Prior to deconstruction, white goods should be removed from the mobile home unit if the mobile home is safe to enter and taken to a white goods collection site. Should the mobile home be severely damaged, or if there are inherent health risks to entering the unit, the white goods may be disposed with the mobile home.

Efforts should be made to remove any putrescible waste prior to deconstruction of the mobile home.

Household Hazardous Waste (HHW) should be removed for separate disposal. If the mobile home is not safe to enter, incidental quantities may be disposed with the mobile home.

The metal frame, tires, and axles are to be salvaged for recycling before disposal.

As asbestos may be present in building materials of mobile homes constructed prior to 1983, all mobile homes built prior to 1983 should be thoroughly sprayed with water (interior and exterior) to minimize dust.

A county wishing to perform mobile home deconstruction must provide a set time timetable from acceptance of the mobile home to demolition. For example, a county may propose that the mobile home will be deconstructed within 45 days of acceptance at the facility.

A county wishing to perform mobile home deconstruction must also designate an area within the landfill that will be used for deconstruction purposes.

A Permit from NCDOT {[NCDOT Oversize/Overweight Permits Unit](#) at (888) LRG-MOVE (574-6683} and approval from the Division of Motor Vehicles must be obtained before moving a mobile home on a state highway.

NC DENR – DWM – SWS Field Operations and Compliance

Branch Operating Guidelines 2 | Page *Development History Note:*

Guidance was revised from an original undated document This Operating Guideline revised by FOG Team August 16, 2009

In 2008, House Bill 1134 was enacted to protect public health and the environment by encouraging counties to develop plans providing for the deconstruction of abandoned manufactured homes and the removal of reusable or recyclable components, by providing for the abatement of abandoned manufactured homes that are determined to be a nuisance, and to designate that a portion of the Solid Waste Management Trust Fund be used to fund the deconstruction and removal of the abandoned manufactured homes. A copy of House Bill 1134 and additional guidance on the Abandoned Manufactured Homes Grant Program can be found on the Division of Pollution Prevention and Environmental Assistance web page at the following link: <http://p2pays.org/localgov/AbandonedManuHomes.asp>.