

94-01

Washington Co.



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Fac/Perm/Co ID #	Date	Doc ID#
94-01	8/20/12	

Camer Johnson

DRAFT

**CONSTRUCTION PLAN APPLICATION
FOR
PROPOSED LANDFILL**

**WEYERHAEUSER PAPER COMPANY
PLYMOUTH, NORTH CAROLINA**

1991

**DRAFT
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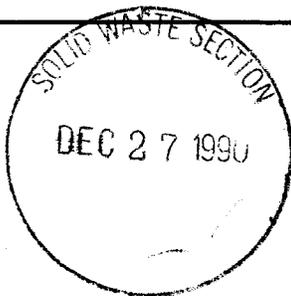
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December 19, 1990

Mr. Gary Ahlberg
North Carolina Department of Environment, Health, and Natural Resources
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687

SUBJECT: Meeting Summary - December 13, 1990

Dear Gary:

Thanks again for meeting with us last Thursday. I feel that we all benefitted from the meeting. You helped clarify for us what steps need to be taken to proceed with the permit process.

My summary of the meeting is attached. Please contact me should you have any revisions or corrections. Beyond that, I will be in touch as soon as we are ready to submit the site data that you requested.

Have a Merry Christmas.

All the best,

RMT, Inc.

Mark Taylor
Project Manager

Enclosure

cc: Richard Gay, Luke Miller
File 467.45(C)

MEETING SUMMARY

THE FOLLOWING REPRESENTS OUR UNDERSTANDING OF MATTERS DISCUSSED AND ACTIONS AGREED UPON. ANY CORRECTIONS OR OMISSIONS OF MERIT SHOULD BE REPORTED PROMPTLY TO THE WRITER.

Project: Weyerhaeuser Plymouth New Landfill

Place of Meeting: Solid Waste Section, NC DEHNR, Raleigh, NC

Date of Meeting: December 13, 1990

Present for:

NC DEHNR:	Gary Ahlberg
Weyerhaeuser:	Richard Gay
	Diane Hardison
RMT:	Chuck Sherron
	Mark Taylor

Purpose of Meeting:

The purpose of the meeting was to gain Solid Waste Section acceptance of the proposed design concepts for the new landfill, and to determine what steps need to be taken to permit the landfill.

DISCUSSION

R. Gay began by reviewing Weyerhaeuser's solid waste program for Ahlberg. The initial driver for changes in the landfill was the requirement by DEM that sludge no longer be placed in earthen lagoons. The mill had originally planned to design and build a new landfill to handle the dewatered sludge by June 1991. At the present time, a sludge dewatering system is under construction, and incineration of the dewatered sludge has been approved by DEM. Weyerhaeuser is still improving its solid waste management program, but is no longer on the fast track to building a new landfill.

Gay stated that construction will begin in January on the first phase of the vertical expansion/closure of the existing landfill. That facility is expected to reach capacity in 1993 or 1994. The mill has reduced its waste stream by some 25 to 30% to date. Weyerhaeuser is investigating alternatives for disposal of its ash, which makes up 60% of the waste stream. NC DOT has been contacted to see if they would use the ash for subgrade in the construction of US 64 near Plymouth.

Ahlberg asked what part of the waste stream had been reduced. Gay replied that it was primarily wood waste that was recovered using a recently-installed Rollins hogger. He added that approximately 10 tpd of ash were being sold to a charcoal manufacturer.

Gay mentioned that the site was been approved for use as a landfill in the 1970s. Ahlberg asked that Gay recap the site approval discussions. Gay pointed out that roughly 300 acres had been approved in the 70's. At that time, the Solid Waste Section was recommending that facilities set aside large tracts of land for future solid waste disposal. At the present, the existing 40-acre solid waste landfill and an 8-acre asbestos landfill occupy the site. A portion of the existing landfill was lined for coal ash disposal, but that section is no longer operated separately. The present construction and operating plan apply to the 40-acre facility. The asbestos landfill does not have an operating plan, but was approved by the Section in letter form. Two acres of that landfill will be used for a sedimentation basin for the vertical expansion, and Weyerhaeuser plans to expand the asbestos landfill 2 acres to the south.

Ahlberg then asked if we were ready to discuss the subsurface work. Gay responded that a substantial number of borings and subsurface investigations had been done to answer engineering design questions. He mentioned that the last time he had met with Ahlberg, the project was on a "fast track" to provide for sludge disposal by June 1991. That schedule has relaxed since the decision to incinerate the sludge. Ahlberg asked where the sludge will go. Gay responded that it will be incinerated, and that the resulting ash will go to the landfill.

Taylor and Sherron presented the slides that summarize the work on the new landfill. The following discussion took place during the slide presentation:

- Ahlberg:** Will you be taking leachate back to the WWTP?
- Gay:** We'd like to discuss that. There are obvious problems with transporting leachate across the creek to the WWTP. We would like to know if on-site treatment might be acceptable.
- Ahlberg:** The whole gambit of leachate management will fall within Department of Environmental Management's (DEM) realm. It *will* require a separate permit. DEM is issuing permits for pump and haul, pretreatment for discharge, etc. Any other permits, such as NPDES, must be obtained before Solid Waste will issue the construction permit.
- Gay:** Can we submit the plans for leachate handling for DEM review in the Construction Plan application package, or does it need to be a separate submittal?
- Ahlberg:** A separate application could be filed at the time the construction plan application is filed. DEM will prefer that leachate go back to the WWTP. An NPDES permit will be least palatable. They would require an options assessment and justification prior to issuing one.
- Gay:** Will the storm water permit need to be separate or part of the Construction Plan Application. [No answer provided]

Sherron discussed the proposed conceptual design using the poster board graphics. When he pointed out that the design included a minimum of 4' separation between waste and ground water, Ahlberg mentioned that Solid Waste was using the bottom of the leachate collection piping as the reference point for "bottom of waste." He asked if the design included internal leachate sumps. He said that these seemed to have many advantages over external ones, but that either internal or

external sumps could be approved. Sherron replied that the design had not reached that level of detail yet.

Sherron asked if it might be possible to reduce the 300' property line buffer to the 50' stated in the Rules for a small area on the east side of the property. He noted that the restriction reduced airspace and complicated the design on the east side. Gay mentioned that Weyerhaeuser was looking into purchase of the property, but could not be certain that it is available. Ahlberg responded that the 300' could be reduced with the proper justification.

Sherron asked what needs to be done to obtain that clearance. Ahlberg responded that he could provide a path of action. He said that he understands the situation, and that Weyerhaeuser has clearly "done the full nine yards." Solid Waste now issues a site-specific construction plan application letter following review of the Site Plan Application. They have also added a third permit to the list. After the construction plan is approved, an operating permit is required. A 5-year review cycle applies to the operating permit. For this reason, Solid Waste like to see something close to 5-year phases in new landfill designs.

Hardison asked if Weyerhaeuser can expect to see the letter described by Ahlberg. Ahlberg responded that it would be best to solicit his response by submitting the investigative results and the design concepts for review. The major objective of that review will be to resolve what the liner design requirements should be. He said that the buffer zone issue could be addressed at that time as well.

Taylor asked if DEM needs to be involved now? Ahlberg responded that there was no need to contact DEM until after the preliminary review by Solid Waste. Don Saffert will be a good contact there. He did indicate that RMT might want to contact DEM about ground water control because they have indicated that they will require NPDES permits for ground water diversion discharges.

The discussion shifted to final capping for the landfill. Ahlberg noted that 10⁶ caps had been approved. Solid Waste is looking at liners on the tops of landfills, but not the side-slopes. He said that we might want to evaluate performance and address actual design later.

Gay asked if Solid Waste had any experience with de-inking sludge. He said that the mill is looking at 100-250 tpd of production, with 20-25% of that being waste. He pointed out that waste might become a part of the waste stream. Ahlberg replied that he was not familiar with the material. Gay replied that he understood that it does not dewater easily, and that it might contain metals. Ahlberg responded that from the landfill perspective, it might be feasible to designate a portion of the landfill for the sludge. Gay mentioned that methane might also become an issue with this sludge.

SUMMARY

Weyerhaeuser and RMT need to submit an interim communication containing the background information, design concepts, and proposed solutions for the liner, leachate handling, and the property buffer on the east boundary. Solid Waste Section would then prepare a letter outlining requirements for a Construction Plan Application for the proposed design.

WEYERHAEUSER PAPER COMPANY

PLYMOUTH MILL

PROPOSED DESIGN FOR NEW LANDFILL

**North Carolina Department of Environment,
Health and Natural Resources
Solid Waste Branch**

December 13, 1990

Objective: To gain Solid Waste Section acceptance of the design concepts proposed for the new landfill.

Agenda: Introduction and Background

Review of Solid Waste Master Plan

Site Characterization

Waste Characterization

New Landfill Design Concepts

Discussion

Summarize

- Submit as a preliminary proposal
conceptual design site plan requirements performed
→ review & issue S.S.L.F.D permit type letter

line design
- (a) • monitorability
• waste character
• SW

possible future
de-inking waste
discrete nonfill w/in permitted area

- operational permit
- leachate
5 yr. plan
temp. methods w/
contingencies

Weyerhaeuser
Paper
Company 

P.O. BOX 787
PLYMOUTH, NORTH CAROLINA 27962
(919) 793-8111

April 6, 1990

Mr. Fred Wood
NCDHR
Solid and Hazardous Waste Management Branch
404 St. Andrews Street
Greenville, NC 27834

Dear Fred,

After a recent conversation with Richard, Terry Dover had requested that we submit to you a revised Asbestos Disposal site plan. Therefore, please find attached the revised site plan, including an updated map highlighting the proposed changes.

The former Site Plan encompassed approximately 8.3 acres. The proposed change would mean extending the Southern boundary, while contracting the Northern boundary. This would result in a new area encompassing approximately 9.5 acres.

The revision is necessary to make room for the sedimentation pond that will service the vertical expansion of the landfill. As shown on the enclosed map, the sedimentation pond will be located near the Northeast corner of the landfill.

I hope this information meets with your approval. Please contact Richard Gay at (919)793-8693 if you have any questions or comments.

Sincerely,

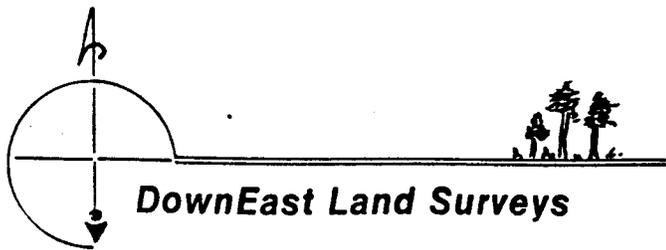


John Somers,
Environmental Engineer

JS:dmc

Attachments

xc: John S. Pritchard
Richard L. Gay
Diane R. Hardison
Jerry Foster
Luke Miller
Tommy Hardison
Jerry Coker

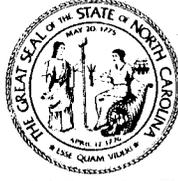


Clifton L. Brown
Registered Land Surveyor

P.O. Box 711
Plymouth N.C. 27962
Office (919) 793-4355 Res. 793-4690

SITE DESCRIPTION
WEYERHAEUSER PAPER COMPANY'S
ASBESTOS FILL AREA

Beginning at a concrete Control Monument which is located on the West side of a small building at the fuel facility; the monument has a five inch square top with a two inch metal disc stamped Sta. K. The monument is located on the grid N 768316.726 and E 2657673.958 of the NAD 27 coordinate system: thence N17°33' 44.8"W - 274.87 ft. to well MW5; thence N 14°04'47.8"W - 34.44 ft. to the beginning point for the description of the Asbestos Fill Site, said point being marked by a 4" post (S2 on map) standing approximately five to six feet above ground with the top painted blue; thence, continuing on a N 14°04'47.8"W bearing 181.555 feet to a 4" post (S1); thence N 21°35'27.8"W - 443.90 ft. to a 4" post (S20); thence N 09°30'12.2"E - 325.15 ft. to a 4" post (S20A); thence S 81°11'04.1"E - 355.557 ft. to a 4" post (S24A); thence S 43°18'36.2"E - 141.287 ft. to a 4" post (S25); thence S 03°37'48.8"W - 310.49 ft. to a 4" post (S8); thence S 6°21'36.1"E - 371.02 ft. to a 4" post (S7); thence S 08°51'24.9"W - 321.597 ft. to a 4" post (S6); thence N 89°38'25.8"W - 78.87 ft. to a 4" post (S5); thence N 59°16'26.3" W - 135.62 ft. to a 4" post (S4); thence N 15°29'48"W - 186.17 ft. to a 4" post (S3); thence S 76°34'29.6"W - 21.80 ft. back to station 2 (S2) and the beginning point for the Site description. The area within the Site contains 9.471 acres. Precision for the survey is 1:108M. The survey was performed on March 3, 1990 by Clifton L. Brown, RLS 1270.



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

January 15, 1992

William L. Meyer
Director

Mr. Mark Taylor
RMT Inc.
P.O. Box 16778
Greenville, SC 29606

RE: Comments On Proposed Facility
 Weyerhaeuser Paper Company
 Plymouth Mill Landfill Reports

Dear Mr. Taylor:

The Section has completed a cursory review of the referenced reports. Due to our current staff limitations and work load, a complete evaluation of the hydrogeologic and geotechnical report was not performed. However, based on the concepts presented, we were able to better define the issues which are integral to preparing an amendment to the existing permit. These issues were discussed with Richard Gay and Diane Hardison in December. Accordingly, the Section has the following preliminary comments for proposed facility.

1. **General:** All changes to the approved plan should be addressed in the application. This would include construction, operation, and closure of all landfill units and other facilities within the permitted facility boundaries. Type and quantity of waste(s) and procedures for receiving and weighing wastes must be defined.
2. **Hydrogeology:** A complete hydrogeologic report should evaluate groundwater movement on the site. The report must substantiate that monitoring the performance of the individual landfill units on the site is attainable; establishing adequate buffer distances and determining site monitoring requirements must be included in this demonstration. The effects of the existing fill areas on local hydrogeology should be considered. The "At-grade Design Option" will be used to demonstrate separation from the seasonal high water table, relative to the elevation of the synthetic liner. The potentiometric map and appropriate drawings should reflect this design criteria.
3. **Design Concepts:** The proposed composite liner shall be designed to prevent leachate migration towards the ground water. The leachate collection and removal system shall be designed to drain

liquids accumulating on the liner system, maintain less than one (1) foot of head on the liner, and remove leachate from the landfill unit efficiently. The proposed cap shall be designed to minimize liquids infiltration. Generally, we agree with the proposed concepts.

4. **Supporting information:** The performance requirements of the landfill systems shall be established. Stability of the subgrade, waste, and constructed embankments shall be evaluated. Design calculations shall substantiate that the systems are designed to perform under anticipated conditions, and shall identify the critical performance limits of the system components. The materials specified for construction shall be compatible with the design.
5. **Construction Quality Assurance:** A CQA plan shall be submitted to insure that that construction of the facility is adequately monitored and documented. A CQA Report and document drawings are pre-requisites to issuance of a Permit to Operate.
6. **Leachate Management Plan:** Plans shall address and describe leachate/stormwater management within the constructed phase. An estimate of leachate generation rates, calculations for stormwater control, and capacity of the LCRS shall be incorporated in the design. Any leachate storage, treatment, or disposal on the site must be approved by the Section. Other necessary local, State, or Federal permits and/or approvals shall be incorporated in the leachate management plan.
7. **Closure/Post-closure:** A plan shall be prepared to gauge the long-term performance of the facilities.
8. **Waste Boundaries:** Based on the design assumptions, the proposed buffers to the property lines, wells, and streams appears acceptable. Actual buffers shall be illustrated on site drawings and shall incorporate the previously discussed hydrogeologic considerations. Wetlands and floodplains shall be delineated and managed according to the appropriate regulations. The construction plan should be developed in five-year phases, illustrating the progression of development; detailed design drawings shall be limited to the first phase of construction.

Please be advised that these are preliminary comments based on current technology and rules. In addition to Rule .0504, these comments should be useful to the applicant in preparing application documents. The Section anticipates that 15A NCAC 13B will be revised within the next two years. Rule .0201 describes the new procedure for permit issuance. The first part of the two part Solid Waste Permit is the Permit to Construct. Requirements for the Permit to Operate will be included in the Conditions of the Permit to Construct.

If you have additional questions, please call me at (919) 733-0692.

Sincerely,

A handwritten signature in cursive script that reads "Gary W. Ahlberg". The signature is written in dark ink and is positioned above the typed name.

Gary W. Ahlberg
Environmental Engineer
Permitting Branch, SWS

cc: Jim Coffey
Chuck Boyette
Diane Hardison, Weyerhaeuser

→ will installation
of ~~the~~ Sed pond
disturb previously
buried Asbestos?

→ are there any existing
records designating
this area for A. disposal

11/14/91

Discuss Weyerhaeuser of Jim

RE:

1. Conceptual 24" composite
10-7 on site
2. ~~2~~[±] ~~3~~ years remaining cap.
3. 300' buffer w/
variance to 50' in one locale
4. perched GW analysis
- shallow w/ seasonal control
- deep w/ active system

→ financing

shallow design
w/ 50" buffer



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March 15, 1991

Mr. Gary Ahlberg
North Carolina Department of Environment, Health, and Natural Resources
Solid Waste Section
P.O. Box 27687
Raleigh, NC 27611-7687



SUBJECT: Weyerhaeuser Paper Company
Plymouth Mill Landfill Reports

Dear Gary:

Two copies of the following RMT reports are enclosed, as you requested:

- Waste Characterization and Analysis,
- Phase 2 Hydrogeologic and Geotechnical Site Characterization for a Proposed Landfill, and
- Conceptual Design for the New Landfill.

We understand that NC DEHNR Solid Waste Section staff will review these reports, and that you will issue a letter that outlines the information that should be provided in the Construction Plan Application. Weyerhaeuser and RMT look forward to receiving these comments as soon as possible, and to moving forward on the permit submittal.

Thank you for your assistance with this matter.

All the best,

RMT, Inc.

Mark Taylor
Project Manager

Enclosure

cc: Richard Gay, Tommy Hardison, Luke Miller, John Sommers
Stan Duncan
File 467.45(C)