

96011995

WAYNE Co. 1995

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



November 15, 1995

Mr. Wayne Sullivan
Municipal Engineering Services
P.O. Box 97
Garner, N.C. 27529

RE: Hydrogeologic Review Of The Revised Transition Plan For The
Wayne County Landfill, # 96-01

Dear Mr. Sullivan,

The Solid Waste Section Hydrogeologic Unit has reviewed the revisions to the Transition Plan for the Wayne County Landfill. There are still a few items that need additional clarification or changes. Please address the following questions and comments:

For the Summary Report and Local Area Study, there has been no substantive response to the March 14, 1995 Memo from Jim Bateson to Ed Mussler regarding the initial Hydrogeologic Review Of The Transition Plan For The Wayne County Landfill, which was attached to the May 15, 1995 letter to Mr. Lloyd Cook.

SUMMARY REPORT

- For any water supply wells located within 500 feet of the waste boundary, additional information is needed on the exact location and construction details of those wells.

LOCAL AREA STUDY

- The "Property Boundary & 2000' Perimeter" Topographic Map and the Aerial Photo have no legends or North arrows.
- If the Aerial Photo is being used to illustrate most of the information required for the Local Area Study, then the 2000 foot perimeter line needs to be indicated on the Photo. A legend and North Arrow should also be indicated on the Photo.
- Are there any surface water intakes within the study area?

- If the Operation Drawings are being used to show current topographic information, limits of disposal areas, benchmarks, etc., they must be provided or clearly cross-referenced in the Local Area Study section of the Transition Plan. Which Operation Drawings are being used to provide this information? Which Operation Drawing shows the survey control benchmarks?

WATER QUALITY MONITORING

GAI's August, 1995, responses to review comments - Addendum A, Ground And Surface Water Monitoring System (February 11, 1994) - appear generally satisfactory.

GAI's August, 1995, responses to review comments - Addendum A, Water Quality Monitoring System Modifications (October 4, 1994) - appear generally satisfactory.

- Wayne County should ensure that trip blanks are reported in future sampling events.
- Wayne County or one of their consultants need to address Jim Bateson's final comment requesting "in detail, the limits and dates of fill on the site map", especially in the vicinity of well MW-7.

SAMPLING AND ANALYSIS PLAN (SAP)

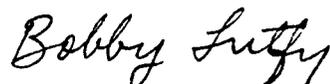
- The Revised Sampling And Analysis Plan (SAP), dated April 1995 appears generally okay. At the bottom of page 5, specific conductivity should be reported along with the other field test parameters.
- GAI needs to provide a separate copy of the Revised SAP to each County to be included in their copy of the Transition Plan. For the Transition Plans to be retained by the Solid Waste Section, either a sheet referencing the Revised SAP on file should be placed in each County's Transition Plan or a separate copy of the Revised SAP needs to be placed in each of the various Counties Transition Plans.

Mr. Wayne Sullivan
Wayne Transition Plan
Page 3

The April 1995 Baseline Sampling Report for the October, January, and March sampling events did not include 1) a comparison of the analytical data to the N.C. Groundwater Standards or 2) a statistical evaluation of the data (with a comparison of the data from each downgradient well to the data for the background well). The Solid Waste Management Rules require, for each sampling event, that the analytical data be evaluated by these two methods.

Please provide the additional revisions to the Transition Plan as soon as possible so the Solid Waste Section can complete our technical review. If you have any questions regarding this letter, please contact me at (919) 733-0692, extension 258.

Sincerely,



Bobby Lutfy
Hydrogeologist
Solid Waste Section

cc: Greg Eades, Solid Waste Section
Lloyd Cook, Wayne County
Wendell Parker, GAI NC - Inc.

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



October 6, 1995

Mr. Lloyd S. Cook
Wayne County Landfill
460 B Landfill Road
Dudley, N.C. 28333

RE: Ground-water Monitoring at the Wayne County Landfill (Permit # 96-01)

Dear Mr. Cook,

The Solid Waste Section has not received the statistical analysis of the data from the baseline ground-water monitoring episode at the Wayne County Landfill (N.C. Solid Waste Management Rule, .1633). A review of the data indicates N.C. Ground-water Standards have been exceeded by some monitoring parameters, and consequently Wayne County should be conducting assessment monitoring by sampling the landfill monitoring wells for the Appendix II constituent list (Rule .1634). The first assessment monitoring event should have been on or before July 9, 1995. The data from the last sampling episode on September 14, 1995 was for the Appendix I constituent list that is part of the detection monitoring program.

Wayne County should have the monitoring wells at the landfill sampled for the Appendix II constituents within the next 30 days. The resulting data and the statistical analysis from the baseline sampling should be submitted to the Solid Waste Section as soon as possible. In addition, ground-water flow rate and direction at the landfill must be determined each time the wells are sampled and the information submitted as part of the report package.

Thank you for your cooperation. If you have any questions, please call this office at (919) 733-0692.

Sincerely,

Larry Rose
Hydrogeological Technician
Solid Waste Section

c: Terry Dover
Bill Morris

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

96-01



July 3, 1995

E. Norman Ricks, III
Finance Director
Post Office Box 227
Goldsboro, North Carolina 27533-0227

RE: Financial Assurance for the Wayne County Landfill
Local Government Financial Test Update

Dear Mr. Ricks:

This is a reminder that, as specified in 15A NCAC 13B .1628(e)(1)(F)(vi), annual updates of the financial test must be submitted 120 days after the close of the fiscal year. Tests previously submitted expired on July 1, 1995, and updated tests must be submitted to me by November 1, 1995.

Please note that the updated test must use figures from the local government Annual Financial Information Report dated **June 30, 1995**. The correct inflation rate to use in updating closure and post-closure costs is **1.015**. Prior to submitting your updated test, please call me at (919) 733-0692 ext. 270 so that we can discuss the status of the previously submitted test. Upon completion, please mail your updated test to my attention at the address printed below.

Sincerely,

Lee Capasso Flynn
Compliance Officer
Solid Waste Section

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



May 15, 1995

Mr. Lloyd Cook
Wayne County Solid Waste Director
460B South Landfill Road
Dudley, NC 28333

Re: Technical Review Wayne County Transition Plan Revision Permit No. 96-01

Dear Mr. Cook:

The NC Division of Solid Waste Management, Solid Waste Section (Section) has completed its review of the revised Transition Plan for the above referenced site. Based upon our review, several items remain unresolved. Please address the following concerns.

Section I- Summary Report

1. Has Wayne County made any decisions on management of their solid waste? Has a timetable been set?

Section IV- Local Area Study

1. See the attached memo from the Section hydrogeologist

Section VI- Operation Plan

1. The first sentence of the operation plan still needs to be modified to state that the current permit expires in 1995. The fact that the existing landfill will operate until 1997 pending approval by the Section for a vertical expansion should also be included at the beginning of the plan.
2. 5.c Air Criteria- Fire fighting arrangements, available equipment and the "hot load" policy" is mentioned in Municipal Engineering's response of December 15, 1994. These facts, however, still need to be addressed in the written plan
3. 9.c Liquids Restriction- Even though another contractor may conduct the "Paint Filter Test", the test, including the procedure and interpretation of the results, still needs to be included in the plan, to ensure that the test is performed correctly and consistently.
4. 11. Spreading and Compacting- Please address the issues of the necessity of temporary berms and the provisions for inclement weather.
5. Appendix I- The landfill's industrial users and potentially problem wastes need to be written into the plan. Additionally, include the hazardous waste training of landfill personnel, the random inspection criteria and the names and phone numbers of personnel to contact upon receipt of suspect waste. The plan should state the County's policy on payment for any testing or potential cleanup of suspect loads.

6. Synthetic Cover- With respect to the alternate daily cover, please include the frequency of soil applied as a firebreak.
7. Methane Gas- Please develop and include a sampling form for the County's use. Refer to the November 15, 1994 technical review letter for specific form requirements.

Section VIII- Closure Plan

1. Permeability Testing- The Section still needs to know the number and frequency of perm tests run and the quality control to be performed on the stockpiled materials prior to cap placement.

Section IX- Post Closure Plan

1. The Post Closure Plan should include provisions for additional site inspections and maintenance particularly immediately after closure, to help control potential erosion. Seeding does not necessarily prevent erosion until vegetation has been well established. The plan needs to be revised to account for this possibility.

Section X- Cost Analysis and Summary

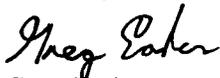
1. It is the Section's opinion that the soil and construction costs do need to be broken down to include the hauling, placement and cost of the soil along with the mobilization of the equipment.
2. Sediment removal costs should be accounted for. Seeding may not prevent significant erosion at the site until vegetation is well established..

Section XII- Water Quality Monitoring Plan

1. See the attached memo from the Section hydrogeologist

Please forward the required information and revisions to the Section as soon as possible. As per the previous revision, two copies of all revisions need to be submitted with the revision date included on each page. We are available by phone or fax to help clarify this letter or answer any additional questions.

Sincerely,



Greg Eades
Environmental Engineer

Attachment:

cc: Bill Morris
Ed Mussler
Terry Dover
D. Wayne Sullivan- Municipal Engineering

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



March 14, 1995

MEMORANDUM

From: Jim Bateson 

To: Ed Mussler

cc: Bobby Lutfy

RE: Hydrogeologic Review of the Transition Plan for the Wayne County Landfill, Permit # 84-01

The Solid Waste Section Hydrogeologic Unit has reviewed the Local Area Study and Water Quality Monitoring Plan portions of the Transition Plan for the Wayne County Landfill. There appear to be several errors and omissions in these portions of the Transition Plan. Please have Wayne County's consultants address the following comments:

SUMMARY REPORT

- In the Summary Report, item 1, it states the closest home with a well is approximately 200 feet from the waste boundary. The aerial photo shows three residences within 500 feet of the edge of waste. The rules require at least 500 feet between drinking water wells and sanitary landfill waste. For any wells located within 500 feet of the waste boundary, additional information is needed on the exact location and construction details of those wells.

LOCAL AREA STUDY

- The 2000 ft. perimeter map does not identify some of the following items, as required by rule .1629(b)(2)(A):
 - (i) Current topographic information for the permitted facility;
 - (ii) Water supply intakes (ground and surface water);

These items should be clearly indicated and labeled on the map. If any item is not present this should be noted on the margin of the map. For example, if there are no water supply intakes within 2000 ft. of the facility boundary, this should be noted in the margin of the map.

- The 2000 ft. perimeter map does not identify some of the following information, requested in the Technical Guidance Document for Transition Plans For Existing MSWLF Units In North Carolina:
 - Location of survey control benchmarks;
 - Existing conditions, (including a current topographic map of the permitted facility);
 - Known limits of old disposal areas;
 - Areal limits of active disposal areas;
 - General topographic features such as floodplains, wetlands, streams, lakes, ponds, watersheds, drainage structures, etc.
 - The scale, legend, North direction, and benchmark(s).

WATER QUALITY MONITORING PLAN (WQMP)

- The monitoring wells must be surveyed for horizontal and vertical control. NCSP coordinates for each well, and for the onsite benchmark, need to be posted on the site map. Elevations for each well need to be shown to the nearest one hundredth of a foot.
- Comments on the proposed monitoring system have already been provided in the Interim Review letter of July 26, 1994.
- Table 4, Planned Groundwater Monitoring Well Installations:
 - The note states "Mounding of soil around the wells will be done to achieve one foot of bentonite and four feet of grout above the sand around the screens". Although the Solid Waste Section prefers that shallow monitoring wells be screened so that the water table falls within the screen, this may not be appropriate for wells with very shallow water tables. It is more important to construct the well so that a proper seal can be established to avoid surface water infiltration. Therefore in order to allow adequate room for a proper bentonite seal and grout, the top of the well screen should never be set shallower than about five feet. Mounding of soil as described should not be necessary if the wells are constructed in the manner described above. Proper grading and rip-rap may be used to divert surface water around a monitoring well.
 - This note also states "The well depth is planned to have approximately one foot of sand pack below and above the screen in the well". The guidelines the Solid Waste Section has made regarding having "the sand pack extend no more than one foot below the screen" should not be interpreted to mean the Section prefers wells constructed with one foot of sand below the screen. This guideline was issued to make it clear that sand packs should not extend deeper than the well screen, which in effect extends the screened interval. Generally it is preferred that the well screen be set as close to the bottom of the borehole as possible. This is especially important if the well screen is set on top of a confining unit.

SAMPLING AND ANALYSIS PLAN (SAP)

- Pages 2 and 3 of the SAP describe decontamination procedures for the water level indicator that are not recommended by EPA. The approved method of field decontamination of water level indicators is a laboratory grade soap wash followed by a DI water rinse (steps 2 and 3 of your equipment decontamination procedures, rather than steps 3 through 5). The soap wash is preferred because even laboratory grade isopropyl alcohol is not 100% pure and because in the field there is insufficient time to properly air dry equipment cleaned with alcohol.
- Page 3 (SAP) It is a good policy to verify the total well depth after sampling to see if the depth matches the depth of well indicated on the well tag. This also provides information on the condition of the well and alerts you to problems with siltation of the well, etc.
- Page 4 (SAP) If the bailer is left in the monitoring well between purging and sampling, it should be suspended in the well at a level above the water table.
- Table 1, Ground And Surface Water Analyses Methodology: Many of the proposed analytical methods are not those required in the sampling guidelines outlined in the June 24, 1994 memorandum to MSWLF Owners and Operators. Regular ICP methods (EPA 6010A) are not approved for metals requiring low level certification. (Beryllium, Chromium, Cobalt, Silver, and Vanadium are metals requiring low level certification that were listed in Table 1 for analyses using ICP methods not approved by the Section for low level analysis.) The approved analytical methods for Volatile Organic analysis are EPA 8240 or 8260. The other methods proposed for Organic Constituent analysis in Table 1 are not necessary (8010A, 8020A, 8021).

BASELINE SAMPLING REPORT Of October, 1994

- Table 1. As discussed in an earlier meeting with GAI, a distinction needs to be made between total porosity and effective porosity. Documentation or a rationale for the revised effective porosity values in Table 1 needs to be provided. Also documentation and calculations need to be provided for the hydraulic conductivity values (permeability values), porosity values, direction of flow, etc.
- No trip blank data has been provided for the September 1994 sampling event.
- Water level measurements need to be reported for each well for each sampling event.

Ed Mussler
Wayne County Landfill
Page 4

- Page 2 of the October report states that MW-7 was located further to the south because of the existence of "garbage, refuse, or debris at or near the location" originally requested by the Section. This indicates that fill has been placed within the required 50-foot buffer from a stream. The consultants need to indicate, in detail, the limits and dates of fill on the site map.

If representatives of Wayne County or their consultants have any questions regarding this memo, they may contact me.