

5101Permit1994 - Batch No. _____

Edinston Co 51-01

51011994

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

CERTIFIED MAIL- RETURN RECEIPT REQUESTED

December 27, 1994

Ms. Joyce H. Ennis
Clerk to the Johnston County Board of Commissioners
Box 1049
Smithfield, NC 27577

Re: Johnston County Landfill Site Study

Dear Ms. Ennis,

In accordance with North Carolina General Statute 130A-294 (copy enclosed), the Solid Waste Section (Section) hereby forwards to you one copy of the following document:

Subtitle D Landfill Site Application Report for Proposed Expansion of the Johnston County Landfill, Johnston County County, North Carolina, Final Revision December 1994. Submitted by McKim and Creed Engineers, P.A.

If you need additional copies of this document, please contact Mr. Phthisic at Public Utilities.

N.C.G.S. 130A-294 (b1)(2) requires that the applicable unit of government(s) hold a public hearing when sufficient interest exists regarding the proposed landfill siting. The Section received a copy of the resolution adopted November 7, 1994. Please advise the Section as to whether or not this public hearing meets the requirements of N.C.G.S. 130A-294 (b1)(2). If it does not meet these requirements, please schedule a public hearing in accordance with these requirements.

Thank you for your cooperation in this matter. If you have any questions, please contact the Section at 919-733-0692.

Sincerely,

Edward F. Mussler, III E.I.T.
Solid Waste Section

cc: James C. Coffey DSWM Bob Harding DSWM
Terry Dover DSWM C.T. Clayton, Mckim & Creed

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

December 16, 1994

Mr. Haywood Phthisic
Director of Public Utilities
Johnston County
P.O. Box 2263
Smithfield, NC 27577

Re: General Conditions and Site Specific Design Requirements for the Proposed Johnston County
Landfill Expansion,

Dear Mr Phthisic,

The Solid Waste Section (the Section) of the Division of Solid Waste Management, has completed its review of the site study for the proposed Johnston County Landfill expansion. The proposed site is located immediately west, and adjacent to the existing landfill, off NCSR 210, in Johnston County, North Carolina. Pursuant to Rule .1618(a)(1) the Division is notifying Johnston County that the site is considered suitable, and Johnston county is authorized to prepare an application for a permit to construct. This letter addresses the approved disposal area, a scope for additional subsurface investigations required to prepare the construction plans for the disposal area and support facilities, and design and construction standards for the referenced facility.

Section .0201 of the Solid Waste Management Rules (15A NCAC 13B) requires the Division to issue a solid waste permit in two parts. The first part is a Permit to Construct and the second part is a Permit to Operate. The Division may only issue a Permit to Operate after it determines that the facility has been constructed in accordance with the construction permit and that all pre-operative conditions have been met. This letter is not a permit. This letter only informs the applicant that they may proceed with their permit application. The final action the Division may take on a permit application is the issuance or denial of a permit. Development of subsequent phases of the MSWLF facility will be subject to the requirements for an amendment to the permit as identified under rule .1603(a)(2).

APPROVED DISPOSAL AREA

General

Based upon information submitted and revised through December 10, 1994, the Solid Waste Section has determined that the approximately 250 acre site, as proposed in the conceptual design plan, is suitable for development of a solid waste management facility subject to the terms and conditions specified below.

GENERAL CONDITIONS AND SITE-SPECIFIC DESIGN REQUIREMENTS

The Section requires the submittal of a construction plan application for the first five-year development.

Mr. Haywood Phthisic
Johnston County Site Suitability Letter
December 16, 1994
Page 2

phase, as identified in the conceptual design plan, which is consistent with the requirements of 15A NCAC 13B .1603(a), including, but not limited to, the site specific criteria set forth in this letter.

Restriction

The proposed location of the leachate treatment lagoon on the existing landfill property is specifically not approved. All leachate management activities (i.e. lagoons, ponds, etc.) for the new MSWLF lined unit must be within the approved boundaries of the new facility.

Buffers

Horizontal buffers shall be as described in the conceptual design and as designated in Rule .1624(b)(3), and shall also include the following buffer criteria:

- a) A 100-foot minimum buffer shall be maintained between facility boundaries and borrow areas, unless otherwise approved by the Division.
- b) A minimum 50-foot buffer shall be maintained between borrow areas and delineated wetlands.
- c) A minimum 50-foot buffer shall be maintained between disposal areas and the delineated wetlands
- d) A minimum 300-foot buffer shall be established between the proposed waste disposal boundaries and Middle Creek.

Johnston Count may utilize all remaining areas of the site, except buffer areas, for other solid waste management activities (such as yard waste composting or recycling) or for landfill support activities (such as leachate management and/or stockpiling of cover material) upon approval by the Solid Waste Section.

Design and Construction Standards

1. The applicant must complete the application for a permit to construct consistent with Rule .1617(a) and the general site conditions and design requirements of this letter.

Additional Subsurface Investigation

A geologic and hydrogeologic report shall be submitted as a component of the construction plan application. The report shall present the results of additional subsurface investigations at the site and shall be consistent with the requirements of Section .1623 of the Solid Waste Management Rules.

The additional subsurface investigation shall also provide the following:

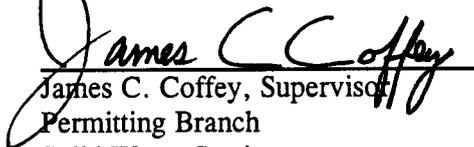
1. Additional borings may be necessary in the dikes located outside the area of the first five year phase. The Section Hydrogeologist shall be consulted during the development of the boring plan for the next phase of work.

Mr. Haywood Phthisic
Johnston County Site Suitability Letter
December 16, 1994
Page 3

The Permit to Construct and the Permit to Operate will be issued to the Johnston County Board of Commissioners. The Division encourages Johnston County to take an aggressive approach to comprehensive solid waste management in order to contribute towards the States' waste reduction goals and lessen dependency upon conventional disposal in a municipal solid waste landfill facility. Johnston County should consider utilizing portions of the site for other solid waste management options (recycling, composting, household hazardous waste collection ,etc.). The Section will make itself available to discuss these options upon request.

We appreciate your continuing cooperation. If you have any questions, or would like to schedule a meeting to discuss this letter, please contact our office at (919)733-0692. The staff engineer assigned this project is Ed Mussler.

Sincerely,


James C. Coffey, Supervisor
Permitting Branch
Solid Waste Section

cc: C.T. Clayton, McKim & Creed
Jim Barber
Brad Atkinson
Terry Dover
Bob Harding

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, 1994

Mr. C.T. Clayton
McKim and Creed Engineers, PA
5625 Dillard Road, Suite 117
Cary, NC 27511

Re: Technical Review of Site Hydrogeologic Report - Proposed Johnston Co. MSWLF

Dear Mr. Clayton,

A Technical Review of the Site Hydrogeologic Report has been completed. Further information is necessary in order to continue the review process.

The following comments are pursuant to the requirements of 15A NCAC 13B .1623 (a) and are directed to McKim and Creed and to S&ME. Portions of .1623 (a) not addressed below should, at this time, be considered as having met the Technical Review requirements of the Site Hydrogeologic Report; however, additional information may be requested at a later date.

(a)(5) Provide a ground magnetic survey which delineates the thickness and trend of the diabase dike under the western portion of the site and which demonstrates if other diabase dikes are present under the site.

(a)(7)(D) Provide a discussion of any natural (excluding precipitation and evapo-transpiration) or man-made activities that have a potential for causing water table fluctuations at the site.

(a)(13)(B) Provide a discussion of the ground-water flow regime of the site focussing on the relationship of the MSWLF units to ground-water receptors.

Should you have any questions regarding this letter, please contact me at (919) 733-0692.

Sincerely,

A handwritten signature in black ink that reads "Brad Atkinson". The signature is written in a cursive, flowing style.

Brad Atkinson, Hydrogeologist
Solid Waste Section

cc: Walt Beckwith, S&ME

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 7, 1994

Mr. C.T. Clayton
McKim & Creed Engineers, PA
5625 Dillard Road Suite 117
Cary, NC 27511

RE: Technical Review, Johnston County Subtitle D Landfill Site Application

Dear Mr. Clayton,

Johnston County proposes to establish a MSWLF facility not previously permitted by the Division of Solid Waste Management (the Division). Rule .1603 (a)(1), of the NC Solid Waste Management Rules (15A NCAC 13B .1600), directs that a site study shall be submitted, and subsequently, an application for a permit to construct as set forth in Paragraph (a) of Rule .1617. The site study requirements are found in Rule .1618, Site Study for MSWLF Facilities.

The Solid Waste Section (the Section) is performing a technical review on the engineering portion of the site application submitted by McKim & Creed, on behalf of Johnston County. This review involves evaluating the Johnston County site application with respect to the NC Solid Waste Management Rules, 15A NCAC 13B .1618. The following information must be submitted to the Section so that we may continue the review process.

Regional characterization study .1618(c)(1)

The regional characterization study must include a report and a map (.1618(c)(1)). This study needs a summary report of the items discussed in this section. The report should characterize the region and identify items such as where the landfill is physically, in relation to an urban area, what the general land use surrounding the landfill is, and other factors which would show suitability for this site as a Municipal Solid Waste Landfill Facility (MSWLF).

Public Water Supply Wells-

Is there a groundwater divide separating the two downgradient public water supply wells?

What is the size and yield of the closet wells?

Are there any surface water intakes nearby?

Residential Subdivisions -

Approximately how many homes are in the subdivision? Are there any homes in the area that are not part of the subdivision? What is their water supply?

Local characterization study .1618(c)(2)

The local characterization study must include report and a map (.1618(c)(2)). This study needs a summary report of the items discussed in this section. The report should characterize the local area and identify things like the proposed disposal site and any easements, existing land use and zoning of the site and the surrounding properties, other potential sources of contamination, and the existing features of the site as identified in .1618(c)(2)(G), and other factors which would show suitability for this site as a Municipal Solid Waste Landfill Facility (MSWLF).

Aerial Photograph-

The reproduction of the aerial photograph is too dark to allow proper use and to identify the physical characteristics of the site such that a proper correlation between the map and the features can be made. The aerial should be marked with a legend, scale, and North arrow. The property boundary and the 2000 foot radius should also be included. It would be useful to also identify the local area study items of interest as listed in the rule. Pertinent existing topography features such as flood plains and wetlands should also be delineated.

Existing Land Use and Zoning-

Does the County own any additional land immediately adjacent to the proposed site, in any direction? Does the county control any of the property across the creeks?

Private Residences and Schools-

Do any of the residences have wells within 500 feet of the landfill?

Other Sources of Contamination-

The existing landfill should be identified as a potential source of contamination, as well as commenting on any known or suspected path of travel, whether or not it is felt that any existing contamination will affect the new proposed site, and can the site be adequately monitored to detect the source of contamination. Is there an underground storage tank on the existing site? Where are the land application fields, and could they impact the proposed site?

Potable wells and well documentation-

In the absence of well completion data on the surrounding wells, information should be gathered on typical well installation in the area. In particular the common size, depth

and yield should be obtained. Local well drillers could be a source of this information.
What is the resource value of the underlying aquifer?

Existing Topography-

Please provide a copy of the flood map used to identify the floodplain.

Site Hydrogeologic Report .1618(c)(3)

This review letter only addresses the engineering portions of the site application. A technical review of the hydrogeologic report will be submitted under separate cover by the Section Hydrogeologist.

Location Restrictions .1618(c)(4) (which refers to §.1622)

Floodplain-

Please provide a copy of the referenced FEMA map.

Wetlands-

It is advisable that the wetland delineation be included on the property survey plat and properly signed off by the Army Corp of Engineers.

State Nature and Historic Preserve-

The demonstration listed under this category more appropriately addresses Cultural Resources, §.1622(7). Is any of the land of the proposed site included in the State Nature and Historic Preserve?

Cultural Resources §.1622(7)-

Was the cultural resource study that was done and completed in June of 1994 submitted to the agency, and do they concur with the findings of the consultant?

Unstable Areas-

What are the expected soil characteristics and soil strength of the underlying soils and what type of settlements are anticipated. What measures will be taken during the next phase to identify particular soil characteristics needed to properly engineer the system? Are there any anticipated limits to a MSWLF that preliminary soil information has revealed?

Local government approval §.1618(c)(5)

The final local government resolution and minutes of the meeting need to be forwarded to the Section. Is there documentation that the public service announcements that were placed with radio and TV were actually run.

Proposed Facility Plan §.1618(c)(6)

The conceptual plan for the entire facility must be presented. The written report should include a summary of the finding and also include the findings of the geologic report. Of importance is to identify all the activities proposed for the site, a description of the site both topographically and geologically, and any possible limitations or obstacles to overcome. Detailed engineering plans and facility plans will be prepared for the first phase of development during the next phase of the permitting process. The facility drawings for this plan must identify, conceptually, all of the phases, cell locations, final contours, etc (see the requirements of §.1619 (d) & (e). Is it planned to construct the entire phase at once or is incremental cell construction envisioned?

A meeting was held on September 29, 1994 betweenh Mike Sanchez of Mckim & Creed and Ed Mussler of the Solid Waste Section. Many of the particulars for this portion of the application were verbally reviewed then. If there are any questions, please contact us for guidance. Among the topics discussed were the conceptual facility drawings identifying all the phases, and adjustment to the size and scale, and what to make sure is included in the drawings.

Equipment Requirements §.1619(e)(1)(D)

What equipment is currently owned and operated by the county?

Total Operating Capacity

The total operating capacity for the entire facility should be identified, by phase. Final contours for all cells must be on the drawings. Phases six through eight must be conceptually designed, to identify the likely total waste disposed of on-site, and to identify the estimated life of the site.

Available Soil Resources from On-Site Sources and Required Soil Quantities

Stock pile areas and borrow areas, including proposed cuts must be included in the facility plan drawings. Is the 590,000 cubic yards of soil just from phase five or is it from the entire facility? If it is just from the first phase what will be done with the excess soil? The report says that low permeability soils are generally absent on the site. What plans are being made to amend the soil or obtain suitable soils from off site for the construction, and how much off-site or amended soils may be needed? What are the estimated quantities of soils needed for total landfill construction, operation, and closure? Will soils be obtained from a future phase to construct or operate a preceding phase?

Pretreatment Unit-

Any lagoon used for the storage and /or treatment of leachate must have a composite liner system. See § .1680 for leachate storage requirements. What pretreatment is anticipated for the leachate?

Final Cap System

The conceptual cap system must include a geomembrane, or be an alternative design which is demonstrated to be equal to the required cap. See § .1627(c)(1) for cap design requirements.

Erosion and Sediment Control

Are terraces planned for the final cap system, to break the long flow plane on the side slopes of the closed landfill?

Estimated Operating Life of the Proposed Landfill

What is the estimated life of phases 6,7, and 8? What will be done if they are not five years?

When submitting revisions to the site study, the changed pages should be clearly identified with a revision date in either a footer or a header. It is not necessary to submit five copies of revisions or facility drawings, at this time. Two copies will suffice. When the site study is finalized and there are no more changes, then a total of five copies will be needed. These comments are intended to expedite the review of the referenced application, and in no way do they restrict the Section's right to request additional information following the technical review process.

Thank you for your prompt attention. We are available by phone or fax to help clarify this letter and expedite the review of the application.

Sincerely,


Edward F. Mussler, III E.I.T
Environmental Engineer
Solid Waste Section

fm/EFM

cc: Haywood Phthisic, Johnston County Director of Utilities
Terry Dover Bob Harding
Jim Coffey Jim Barber File

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



September 7, 1994

Mr. C.T. Clayton
McKim & Creed
5625 Dillard Rd Suite 117
Cary, NC 27511

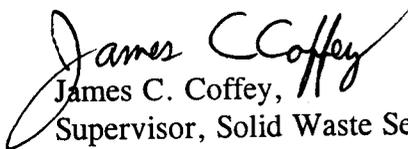
RE: Permanent Methane Monitoring Plan, Johnston County Landfill Transition Plan,
Permit No. 51-01

Dear Mr. Clayton,

In accordance with 15A NCAC 13B .1626(4), owners or operators of all municipal solid waste landfill (MSWLF) units must implement a permanent methane monitoring program on or before October 9, 1994. The permanent methane monitoring plan in the referenced transition plan includes the frequency of testing, test procedure, and a response plan for situations in which methane gas levels are exceeded, in addition to, proposed probe location, depth, and construction. The Solid Waste Section hereby approves the proposed methane monitoring plan as outlined in the referenced transition plan, and the Johnston County Landfill may begin construction of the proposed methane monitoring system.

If you have any questions regarding this matter, please contact Ed Mussler or Sherri Hoyt at (919)733-0692.

Sincerely,


James C. Coffey,
Supervisor, Solid Waste Section Permitting Branch

cc: Bob Harding
Terry Dover File

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



Mr. C.T. Clayton
McKim & Creed
5625 Dillard Rd Suite 117
Cary, NC 27511

August 17, 1994

RE: Permanent Methane Monitoring Plan, Johnston County Landfill Transition Plan,
Permit No. 51-01

Dear Mr. Clayton,

In accordance with 15A NCAC 13B .1626(4), owners or operators of all municipal solid waste landfill (MSWLF) units must implement a permanent methane monitoring program on or before October 9, 1994. The permanent methane monitoring plan in the referenced transition plan should include the frequency of testing, test procedure, and a response plan for situations in which methane gas levels are exceeded, in addition to, proposed probe or well location, depth, and construction.

The methane monitoring plan should describe the permanent monitoring system including a rationale as to why the particular spacing was chosen and the anticipated depth of the proposed wells. The factors of Rule .1626(4)(b)(i) should be addressed in the design of the permanent methane monitoring system. Other factors to consider are the depth to groundwater and the type of soils in and around the landfill. What is the projected depth of the proposed wells ?

The methane monitoring plan should include an emergency response plan, to be implemented in the event that gas is detected, particularly in or around buildings. The plan should address the steps to be taken to ensure protection of human health (see Rule .1626(4)(c)(i). In addition the sampling protocol should be expanded, instruments identified, and sampling locations in and around structures on-site identified. A comprehensive monitoring sampling and analysis plan, similar to groundwater procedures, is recommended particularly if the County plans to have one of its employees do the monitoring.

Are the hexagon locations on Sheet 8 proposed monitoring locations ? Is this correct ? If so , is an additional location needed on the south side, perhaps near groundwater MW 9?

Please submit this information to the Solid Waste Section within 30 days from the issuance date of this letter to avoid compliance action by the Section. If you have any questions regarding this matter, please contact me or Sherri Hoyt at (919)733-0692.

Sincerely,


Edward F. Mussler
Environmental Engineer
Solid Waste Section

cc: Bob Harding
Terry Dover

File

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



July 23, 1994

Mr. Haywood Phthisic
P.O. Box 2263
Smithfield, N.C. 27577

RE: Interim Review Of Water Quality Monitoring Transition Plan
Johnston County Landfill, Permit # 51-01

Dear Mr. Phthisic,

There is limited time available for the Solid Waste Section to review and evaluate the Water Quality Monitoring Plan submitted as part of the Transition Plan. It is not possible to do a full technical review of this plan in time to allow for the upgrading of the monitoring system and the initial sampling episode of the baseline sampling event.

Therefore the Solid Waste Section is giving interim authorization for the Johnston County to proceed with the upgrade of the ground-water monitoring system at the Johnston County MSWLF facility in general accordance with the proposal submitted in the monitoring plan included as part of the Transition Plan. **However, the monitoring system upgrade must meet the following conditions:**

The detection monitoring system will consist of existing monitoring wells MW-3 through MW-9 and new monitoring wells MW-10 through MW-13.

None of the existing monitoring wells are to be abandoned or dropped from the detection monitoring system without written authorization from the Solid Waste Section.

The new monitoring wells (MW-10 through MW-13) should be installed about 100 to 150 feet from the waste boundary.

The monitoring wells are to be constructed according to the specifications in the North Carolina Well Construction Standards (15A NCAC 2C .0108).

The monitoring wells are to be constructed according to the specifications in the "North Carolina Water Quality Monitoring Guidance Document For Solid Waste Facilities" as illustrated by the Typical Monitoring Well Schematic" diagram enclosed.

The monitoring wells are to be placed in the approved locations in areas free of garbage, refuse, or debris, and in areas not subject to flooding.

The monitoring wells are to be drilled to a depth, and the screens placed at vertical locations, that will ensure that future drought conditions, which may lower the water table, will not render the monitoring system ineffective.

Generally shallow monitoring wells shall be installed with a 15 foot screen, with the top of the screen set just above the seasonal high water table, unless hydrogeologic conditions justify changes in this design.

The sand pack should extend no more than 2 feet above the screen and no more than 1 foot below the screen. A bentonite seal of at least 1.0 foot should be installed above the screened interval. The bentonite shall be allowed adequate time to hydrate prior to grouting up the annular space of the well above the bentonite seal.

Monitoring wells shall be thoroughly developed after construction in order to reduce suspended solids, flush out the well, and re-establish equilibrium with the aquifer.

In addition to the water quality analytical data, the initial baseline sampling report must include for each monitoring well the following information: a Well Completion Record, Well Schematic Diagram, boring log, hydraulic conductivity value, porosity value, effective porosity value, and the direction and rate of groundwater flow. **This initial baseline sampling report must be received in the Solid Waste Section office on or before October 9, 1994.** The technical review and determination of adequacy of the Transition Plan Water Quality Monitoring Plan will not be completed until after the initial baseline sampling document has been received and reviewed by the Solid Waste Section.

The water quality sampling and analysis for the baseline sampling must be done according to the directives in the June 24, 1994, memorandum from the Solid Waste Section to MSWLF owners and operators. If you have any questions or comments regarding this conditional interim authorization to install monitoring wells as necessary to upgrade the monitoring system at the Johnston County Landfill, please contact the Solid Waste Section at (919) 733-0692.

Sincerely,

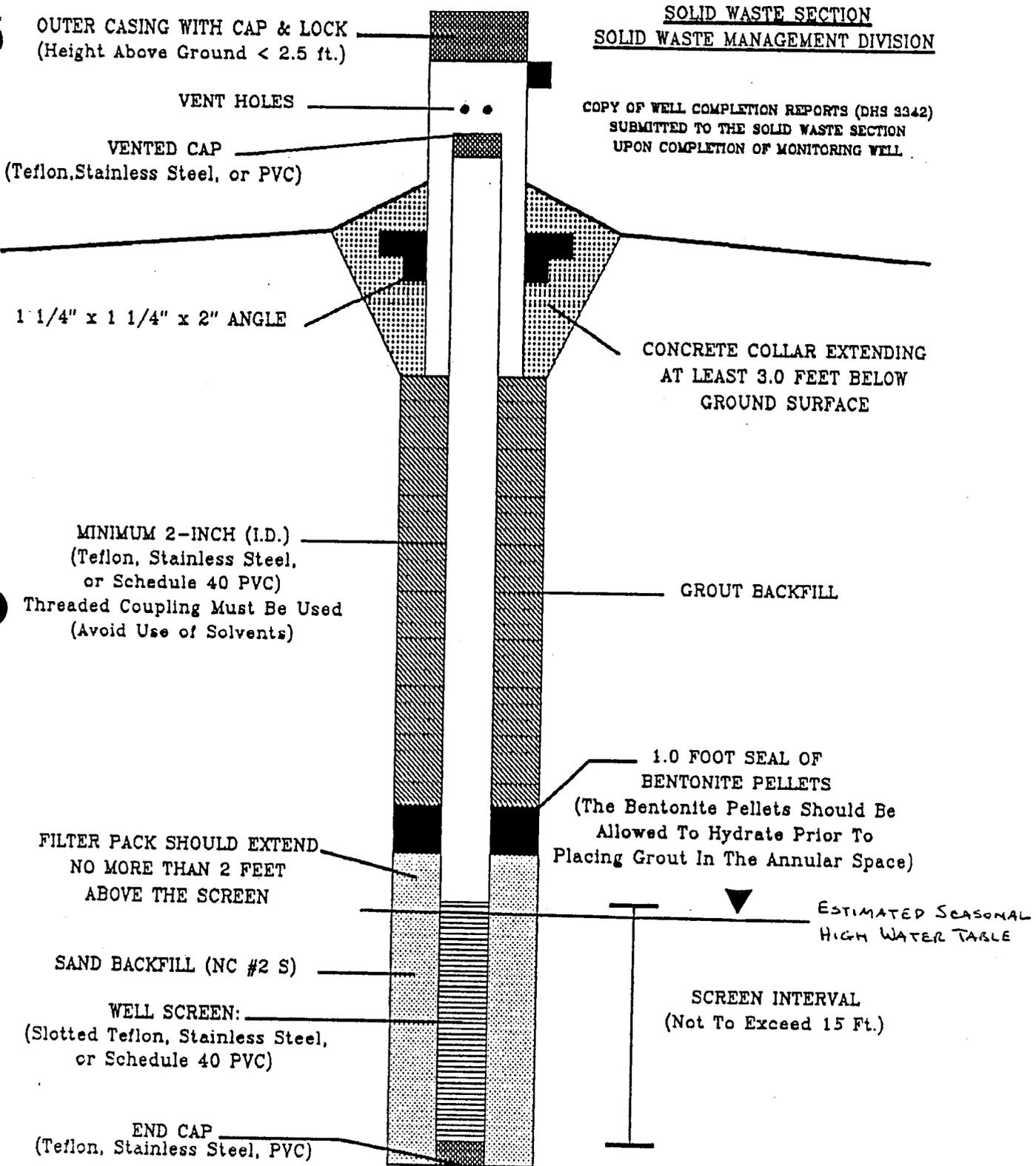
Bobby Lutfy

Bobby Lutfy, Hydrogeologist
Solid Waste Section

cc: Sherri Hoyt
Bob Harding
McKim & Creed

Attachment

TYPICAL MONITORING WELL SCHEMATIC



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
July 19, 1994

Richard B. Self
County Manager
Johnston County
Post Office Box 1049
Smithfield, North Carolina 27577

Mr. Self:

Thank you for your letter regarding Johnston County's consideration of municipal solid waste composting as an alternative for reducing solid waste disposal. Division of Solid Waste Management (Division) staff have visited the Bedminster Sevierville, Tennessee composting facility and are familiar with this process. While the Division cannot recommend any particular commercial process, we encourage Johnston County to further explore this recycling and reduction option. Composting facilities such as this are regulated under North Carolina Solid Waste Management Rules, 15A NCAC 13B .1400, Municipal Solid Waste (MSW) Compost Facilities. The Division stands ready to assist Johnston County with whatever technical assistance we can provide to ensure expeditious review of a permit application for this process.

Both EPA and State regulation define household generated waste and residuals as municipal solid waste. As such, landfill disposal of by-pass waste and residuals must be performed under the requirements of Federal regulations, 40 CFR Part 258 and State regulations, 15A NCAC 13B .1600. At this time there are no provisions in the regulations for providing a variance, such as eliminating the requirement of a synthetic liner component, for municipal solid waste landfills. While this requirement certainly results in higher costs of constructing a landfill for by-pass and residual disposal, it is felt that composite liner systems are necessary for adequate protection of the public health and environment. The Division, however, will work with the EPA to determine if there are disposal alternatives available that are equivalent in protection of the public health and environment.

Again, the Division wholeheartedly supports your exploration of alternatives that result in the reduction, reuse, and recycling of municipal solid waste. If there is any assistance the Division can provide, please do not hesitate to contact me.

Respectfully,

William L. Meyer
Director, Division of Solid Waste Management

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



April 22, 1994

Mr. C.T. Clayton
McKim & Creed
5580 Centerview Dr.
Suite 100
Raleigh, N.C. 27606

Re: Semiannual Sampling Event at the Johnston County Landfill
~~Volume No. 51-007~~

Dear Mr. Clayton:

Per our conversation on March 24, 1994, the first semiannual sampling event at the Johnston County Landfill may consist of the 4 independent sampling episodes to establish background values of the detection monitoring constituents listed in Appendix I of 40 CFR Part 258. All sampling and analyses must comply with the specifications in North Carolina Solid Waste Management Rules 15A NCAC 13B.

If you have any questions or comments, please call this office at (919) 733-0692.

Sincerely,


Larry Rose
Hydrogeological Technician
Solid Waste Section

cc: Terry Dover
Bob Harding

51-01
SECRET

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



April 19, 1994

MEMORANDUM

TO: Landfill Operators

FROM: Dexter R. Matthews, Chief
Solid Waste Section

A handwritten signature in black ink, appearing to read "DRM".

SUBJECT: Recordkeeping Requirements for MSWLFS

This is to remind all MSWLF facility operators that certain elements of transition plans for existing facilities are included in required recordkeeping effective April 9, 1994. These elements and other required records must be kept at the facility and available for inspection by section personnel.

For your convenience, I am enclosing a list of the record keeping requirements for MSW Landfills.

OPERATING RECORD INCLUDES:

1. Outline of waste screening program for detecting and preventing disposal of hazardous waste, liquid waste, P.C.B. waste, and banned items.
2. Records of screening inspections.
3. Outline of training of facility personnel to recognize liquid waste, hazardous waste, P.C.B. waste and banned items.
4. Waste determination records.
5. Amounts by weight of solid waste received at the facility to include source of generation.
6. Gas monitoring results and any remediation plans required. (Recommend written description of monitoring program.)
7. Any demonstration, certification, finding, monitoring, testing, or analytical data required by rules .1630 through .1637 of this section. (see attachment)
8. Any monitoring, testing, or analytical data as required by rule .1627 of this section.
9. Any cost estimates and financial assurance documentation required by Rule .1628 of this section. (see attachment)
10. Any demonstration that a site located within 5,000 ft. of an airport used by only piston powered aircraft or within 10,000 ft. of a runway used by turbine powered aircraft does not pose bird hazard to aircraft as required by rule .1622(1)(C) of this section.

OTHER REQUIRED RECORDKEEPING

1. Contingency Plan.
2. Records required by 40 CFR 61 (asbestos rules).
3. Scrap Tire Certification Forms (scrap tire collection, processing and disposal sites).
4. Operation Plan.
5. Leachate Management Plan .1626(12) (sites with leachate collection system only).

6. Inspection reports of above ground leachate storage tanks (if applicable) .1680(C)(5).
7. Inspection reports of underground leachate storage tanks (if applicable) .1680(D)(5).
8. Records of all monitoring information required by the Permit .1604(2)(K)(ii).

SHERYL HOYT.

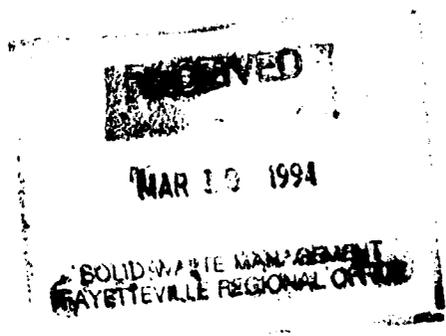


March 7, 1994

M&C358-0042.OR
File 03

ENGINEERS
SURVEYORS
ARCHITECTS
PLANNERS

Mr. Jim Barber
Solid Waste Section
Division of Solid Waste Management
225 Green Street, Suite 601
Fayetteville, NC 28301



RE: Johnston County Landfill Transition

Dear Mr. Barber:

This letter is to recap the conclusions reached at our meeting on 3/4/94 at your Fayetteville office between yourself, Mr. Jim Coffey (By phone), Mr. C. T. Clayton, and myself, in regards to the Johnston County Landfill. The conclusions are as follows:

- A. The existing landfill has a leachate problem which will impact the Transition Plan. We are to submit a plan addressing this item to the Solid Waste Section as soon as possible and prior to submitting the Transition Plan. Also, due to this problem the expected life of the existing landfill will probably be limited to no more than 2-1/2 years under the Transition Plan, or until October 9, 1996..
- B. Due to the property boundary location and the leachate problem in Phase I and II no permitted life remains and we cannot place additional trash on top of this area, as shown on the attached sketch. Also due to the proximity of the leachate to the existing property line it was discussed that the owner should acquire additional buffer along Buzzard Branch.
- C. The County will continue to work in Phase III under the permitted vertical expansion. We will adjust the finished grade toward the south end to maintain a 5% min. slope on the top to meet the new regulations.

SUITE 117
BUILDING 1
5625 DILLARD ROAD
CARY, NC 27511
PHONE 919/233 8091
FAX 919/233 8031

barber-37

Permit No. 51-01

Mr. Jim Barber
March 7, 1994
Page 2

- D. In Phase IV, we can finish filling the southeast corner and adjust the finish grade in this area to meet the new slope requirements.
- E. We are to prepare the Transition Plan according to the above mentioned conclusions.

If there are any additions or corrections that we should be aware of please contact me.

I would like to thank you for your time and the gracious manner in which these items were handled.

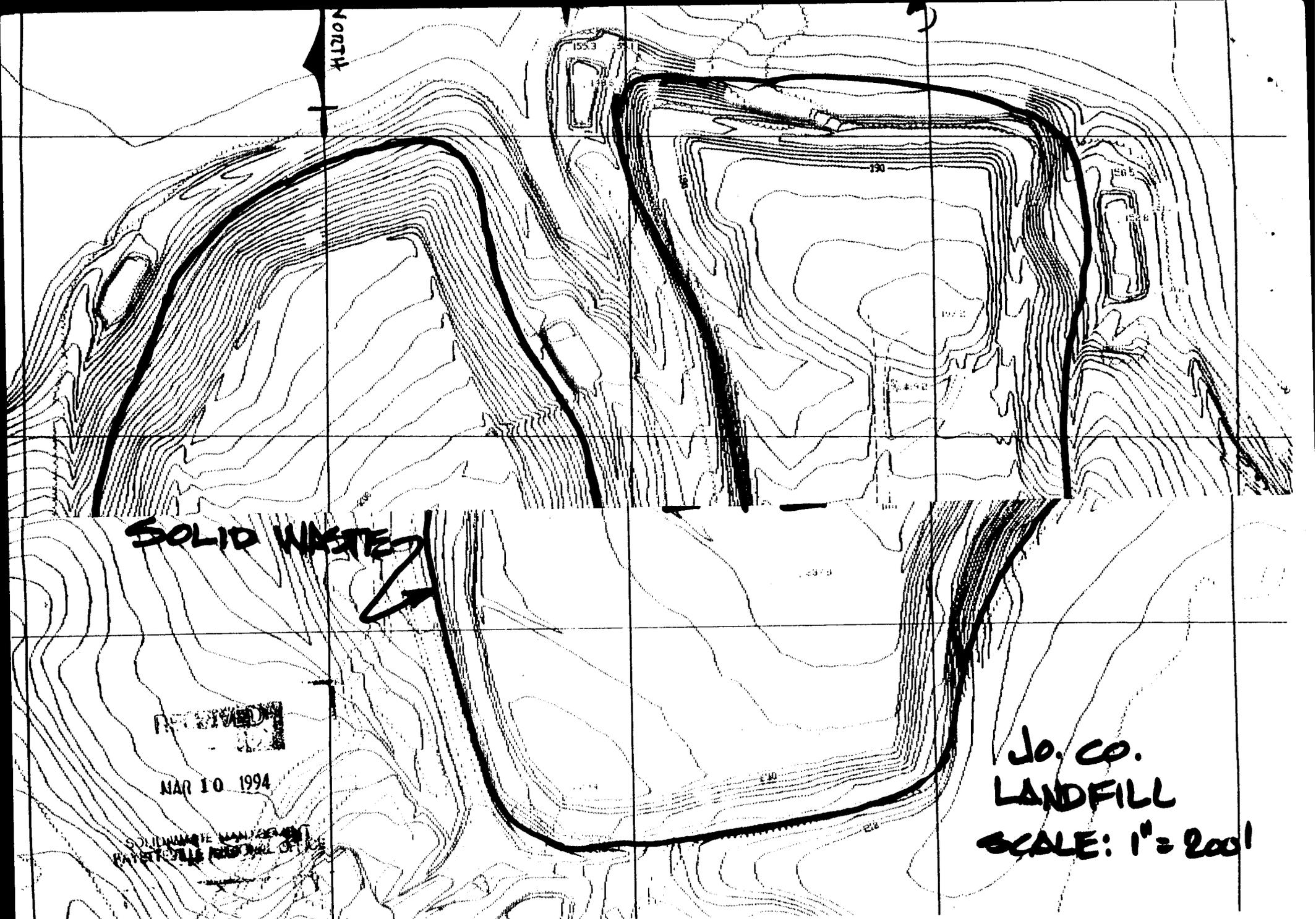
Respectively,

McKIM & CREED ENGINEERS, P.A.


Jerry C. Hodge, P.E.

JCH/nh

cc: Haywood Phthisic, III
C. T. Clayton, P.E.
Timothy G. Broome, P.E.



North

SOLID WASTE



RECEIVED

MAR 10 1994

SOLID WASTE MANAGEMENT
PAYETTEVILLE REGIONAL OFFICE

**Jo. Co.
LANDFILL
SCALE: 1" = 200'**

51-01

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

February 18, 1994

Inspection Checklist For Rules .1630 - .1637

- .1631(b)(1) Documentation from the Division of approval for the design, installation, development, and decommission of any monitoring well or piezometer.
- *.1631(d)(2) A copy of the approved monitoring plan, including information on the number, spacing, location, and design of the monitoring wells.
- *.1632(a) A copy of the approved ground-water sampling and analysis plan, including procedures and techniques for: sample collection, sample preservation and shipment, analytical procedures, chain of custody, and quality assurance and quality control.
- *.1632(j) For each sampling event, a report that includes all information from each sampling event, including: field observations, field data, laboratory data, statistical analysis, sampling methodologies, QA/QC data, ground-water flow directions and rates for each monitoring well, and for each well any constituents that exceed groundwater standards or show a statistically significant increase over background levels.
- .1633(c)(1) A notice indicating which constituents have shown statistically significant changes from background levels.
- .1633(c)(3) A report documenting any demonstration that statistically significant increases resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground-water quality or that a source other than a MSWLF unit caused the contamination.

- .1634(d)(1) A notice identifying the Appendix II constituents that have been detected.
- .1634(d)(2) A report from each sampling event.
- .1634(g) A notice if one or more Appendix II constituents are detected at statistically significant levels above the approved ground-water protection standards in any sampling event.
- .1634(g)(2) A report documenting any demonstration that statistically significant increases resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground-water quality or that a source other than a MSWLF unit caused the contamination.
- .1636(a) Any permit modification necessary to document the selection of remedy based on the results of the corrective measures assessment.
- .1637(c)(4) Any report justifying alternative (corrective) measures.
- .1637(f) A report documenting that the (corrective action) remedy has been completed.

NOTE: The need for most of this information is based upon different stages of ground-water investigation and will not be required for all facilities. Initially, all facilities will be responsible for having an approved monitoring plan, .1631(d)(2), an approved sampling and analysis plan, .1632(a), and reports for each sampling event, .1632(j). The monitoring plan and sampling and analysis plan are part of the Transition Plan due by April 9, 1994. The initial sampling report is due by October 9, 1994.

* Initially required

FINANCIAL ASSURANCE CHECKLIST

Cost Estimate For Closure [.1628(b)(1)]

Financial Assurance For Closure (one of the following)

- Trust Fund [.1628(e)(1)(A)]
- Surety Bond [.1628(e)(1)(B)]
- Letter of Credit [.1628(e)(1)(C)]
- Insurance [.1628(e)(1)(D)]
- Local Government Financial Test [.1628(e)(1)(F)]
- Capital Reserve Fund [.1628(e)(1)(I)]

Cost Estimate For Post-Closure Care [.1628(c)(1)]

Financial Assurance For Post-Closure Care (one of the following)

- Trust Fund [.1628(e)(1)(A)]
- Surety Bond [.1628(e)(1)(B)]
- Letter of Credit [.1628(e)(1)(C)]
- Insurance [.1628(e)(1)(D)]
- Local Government Financial Test [.1628(e)(1)(F)]
- Capital Reserve Fund [.1628(e)(1)(I)]