



September 2, 1994

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ENGINEERS
 SURVEYORS
 ARCHITECTS
 PLANNERS

Mr. Edward F. Mussler
 Environmental Engineer
 NCDEHNR, Division of Solid Waste Management
 P.O. Box 27687
 Raleigh, North Carolina 27611-7687

RE: Response to Methane Monitoring Plan Comments
 Johnston County Landfill (Permit No. 51-01)

Dear Mr. Mussler:

On behalf of Johnston County, this letter is submitted in response to the NCDEHNR, Division of Solid Waste Management (Division) comments on the Johnston County Landfill Transition Plan sent to Mr. C.T. Clayton, McKim & Creed Engineers (letter dated 8/17/94). The following discussion addresses each of the deficiencies the Division identified in the Methane Gas Monitoring Plan included in the Johnston County Landfill Transition Plan.

A detailed Methane Gas Monitoring Plan has been prepared and is enclosed as Attachment 1 to this letter. The contents of the enclosed Attachment 1 will replace Section VII - Appendix B in the final draft of the Johnston County Landfill Transition Plan. In addition, the **Explosive Gases Control** subsection of Section VII has been revised so as to reference the Methane Gas Monitoring Plan to be added to Section VII - Appendix B. The pages containing the **Explosive Gases Control** subsection is included in Attachment 2 to this letter and will replace the preliminary draft pages VII - 18 and 19 in the final draft of the Johnston County Landfill Transition Plan. The final draft of the transition plan will be submitted to the Division once all comment responses are completed and approved. The Methane Gas Monitoring Plan addresses items the Division noted as missing from the transition plan. These items include frequency of testing, test procedures, equipment calibration, well depth, and a response plan for situations in which methane gas levels are exceeded.

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As you and Mike Sanchez, McKim & Creed Engineers, discussed during your brief meeting on August 24, 1994, regarding the proposed gas monitoring well locations shown on Sheet No. 8 of the transition plan, the Division's suggestion to place an additional well to the west of the landfill near MW-9 will not be

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necessary. The rationale for not adding a gas monitoring well at this location, is because the area not shown on Sheet No. 8 which lies further to the west of MW-9 is the proposed lined landfill site. (Please note that a site application for this site was submitted to NCDEHNR on August 16, 1994.) A copy of the revised Sheet No. 8, Water Quality and Methane Gas Monitoring Plan, is also included as Attachment 2 to this letter.

The information contained in this letter addresses the Division's comments resulting from the review of the gas monitoring provisions presented in the Johnston County Landfill Transition Plan. Please call me or Mike Sanchez with any further questions or comments.

Sincerely,

MCKIM & CREED ENGINEERS, P.A.



C.T. Clayton, P.E.
Project Manager

CTC/mjes

cc: Sherri Hoyt - NCDEHNR (Letter without Attachments)
Haywood Phthisic - Johnston County

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