Bladen County Health Dept.
P. O. Box 188
Elizabethtown, N. C. 28337

Steven L. Moffat, M. P. H.
Health Director

Telephones
919/862-2536
919/862-3674

RECEIVED
26 1986
SOLID & HAZARDOUS WASTE MANAGEMENT BRANCH

June 24, 1986

Mr. J. Gordon Layton
Solid & Hazardous Waste Management Branch
Environmental Health Section
P.O. Box 2091
Raleigh, North Carolina 27602-2091

Dear Gordon:

After a careful review of your letter dated June 18, 1986, the Bladen County Health Department finds the design standards you have proposed to be acceptable to the county, and we will proceed immediately with the collection of the information you will require.

We have retained the services of Soil & Material Engineers, Inc. to provide the specifics for the permit's compliance. I would like to request that we schedule a field visit to the landfill in the near future to locate where you want the permanent monitoring wells located.

Sincerely,

Steven L. Moffat
Health Director

SLM:lm

cc: Phillip Rahn
Charles D. Case
Robert R. Reilly

State of North Carolina
Department of Natural Resources and Community Development
Division of Environmental Management
512 North Salisbury Street • Raleigh, North Carolina 27611

James G. Martin, Governor
S. Thomas Rhodes, Secretary

R. Paul Wilms
Director

May 16, 1986

RECEIVED
MAY 21 1986
BLADEN COUNTY HEALTH DEPT.
BY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Douglas L. Evans
County Manager
Bladen County Courthouse
Elizabethtown, North Carolina

Dear Mr. Evans:

SUBJECT: Notice of Violation Groundwater Quality Standards,
15 NCAC 2L,
Bladen County Landfill Site,
Elizabethtown, Bladen County

A review of water quality analyses submitted to DEM by the N.C. Department of Human Resources reveals concentrations of substances in three monitor wells at the above referenced landfill site which exceed established underground water quality standards. Maximum allowable contaminant levels for class GA waters are set forth in Title 15, Subchapter 2L, paragraph .0202(b) of the North Carolina Administrative Code. A copy of 15 NCAC 2L is enclosed.

Specifically, analyses show excessive concentrations of iron, manganese, total dissolved solids (TDS), and sulfates (So_4). The naturally occurring concentration of sulfates in GA waters in the Elizabethtown area is in the range of 5-25 mg/l. In addition, the sample collected from well C exhibits a pH value significantly lower than naturally occurring values.

The orth Carolina General Statutes authorize and direct the Environmental Management Commission of the Department of Natural Resources and Community Development to protect and preserve the water resources of the State. The Division of Environmental Management (DEM) has the delegated authority to enforce adopted pollution control rules and regulations.

Based upon the above facts and pursuant to regulations established in paragraph .0103(h)(2)(c)(i) of 15 NCAC 2L, you are hereby requested to provide to the Fayetteville Regional Office, within thirty (30) days of receipt of this letter, a preliminary plan of action and time schedule which addresses the following:

1. Identification of all pollutants found beneath the compliance perimeter and emanating from same (compliance perimeter is defined in paragraph .0103(h), 15 NCAC 2L);

2. Delineation of the contaminant plume (horizontal and vertical geometry) which underlies the general landfill area;

3. Definition of the quality characteristics of the contaminant plume; and

4. Identification of existing impacts of the contaminants on human health and the environment (eg: contaminated drinking water supplies; surface water and groundwater degradation; etc.)

Based upon the results of your investigation as requested above, appropriate remedial action must be proposed by Bladen County to contain and/or restore the polluted groundwaters. Failure to respond as requested may result in the assessment of civil penalties as authorized by GS 143-215.6.

If you should have any questions or need assistance, please do not hesitate to call Mick Noland at (919) 486-1541.

Sincerely,

R. Paul Wilms

Attachment

cc: Office of Legal Affairs
Perry F. Nelson
Mick Noland
Bill Meyer

Table 1

Concentrations in Mg/l

	Well A			Well B			Well C			GA Standard
	1982	1984	1985	1982	1984	1985	1982	1984	1985	
Iron	57.14	4.65	23.8	3.84	2.91	20.7	27.46	53.1	44.4	0.3
Manganese	0.3	0.15	0.35	0.06	0.09	0.24	5.56	3.39	3.01	.05
Sulfate	140	60	40	27	60	26	750	560	440	Naturally Occurring
Total Dissolved Solids	308	206	307	204	512	535	1106	1052	954	500
Total Organic Carbon	7	-	5	4	-	29	10	-	26	No Standard

Wells B and C also had TOC (total organic carbon) concentrations of 29 mg/l and 26 mg/l, respectively. It is generally acknowledged that TOC concentrations in excess of 10 mg/l strongly suggest pollution.

The naturally occurring concentration of sulfates in shallow groundwaters in the Elizabethtown area is in the range of 5-25 mg/l. Thus, concentrations as high as those observed in monitor wells A and C indicate the presence of pollutants. Parameter concentrations which exceed GA standards represent violations of 15 NCAC 2L .0202 (b).