

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

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

May 29, 1997



Mr. Randall Fletcher  
County Manager  
Avery County  
P.O. Box 54  
Newland, N.C. 28657

Fac/Perm/Co ID #	Date	Doc ID#
BC	6/14/08	DIN

RE: Water Quality Monitoring - Avery County Landfill (Permit # 06-01)

Dear Mr. Fletcher:

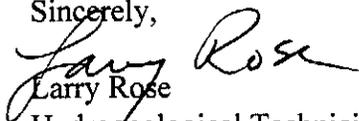
The Solid Waste Section has received the March 1997 Groundwater Sampling Report from Engineering Tectonics, P.A. on behalf of Avery County. Some changes need to be made for future sampling events.

According to the report, well samples were analyzed for a number of parameters not required at closed landfills. It is not necessary to analyze for semi-volatile compounds (EPA method 8270), BOD, COD, TOC, TOX, and some of the other inorganics shown. I have enclosed a copy of the sampling and analysis requirements for closed landfills that contains the correct sampling list. This information was included in your Water Quality Monitoring Plan prepared by GAI Consultants - NC, Inc.

The report did not contain any data from surface water monitoring at the landfill site. As indicated in the December, 1995 closure letter from the Solid Waste Section to Avery County, the landfill is required to do surface water sampling during each water quality sampling event. The above referenced Water Quality Monitoring Plan has the correct sampling locations. Please include this requirement during all future monitoring events.

Thank you for your cooperation. If you have any questions, please call me at (919) 733-0692, ext. 257.

Sincerely,

  
Larry Rose

Hydrogeological Technician  
Solid Waste Section

c: Julian Foscue  
Al Hetzell

Enclosure

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**SAMPLING AND ANALYSIS REQUIREMENTS  
CONSTRUCTION AND DEMOLITION LANDFILLS  
and CLOSED SANITARY LANDFILLS  
N.C. SOLID WASTE SECTION**

**LAB CERTIFICATION REQUIREMENTS:**

The Solid Waste Section now requires water quality sample analysis by a laboratory certified by the Division of Environmental Management for groundwater analysis (15A NCAC 2H .0800). The laboratories used for water quality analysis for Solid Waste Section facilities shall be certified under the Division of Environmental Management (DEM) Certification program for the approved methods and at the approved levels of certification.

**SAMPLING ANALYTICAL METHODS AND REPORTING LIMITS:**

Each parameter on the following constituent list shall be certified at the designated level and an appropriately certified method used for the sample analysis. The data shall be reported at the specified Practical Quantitation Limit (PQL).

Parameter	Certification by DEM	PQL in ppb
Arsenic	Metals, Group I - low level	10
Barium	Barium (20)	500
Cadmium	Metals, Group I - low level	1
Chromium	Metals, Group I - low level	10
Lead	Metals, Group I - low level	10
Mercury	Mercury (21)	1
Selenium	Metals, Group I - low level	20
Silver	Metals, Group II - low level	10

**Volatile Organic Compounds**

For the parameters and PQLs required for volatile organic compound analysis, refer to the next page of this attachment. For volatile organic analysis the laboratory shall be certified for an SW-846 GC/MS Method (8240 or 8260). The recommended method of analysis is EPA Method 8260.

**SAMPLING AND ANALYSIS:**

In addition to sampling for the constituents referenced above, all sampling should also include field testing of pH, temperature, and specific conductivity. EPA requires analysis for total metals. No filtering of samples is allowed. The 3030C preparation method for metals analysis is not allowed.

January 1995

**VOLATILE ORGANIC COMPOUNDS**

ORGANIC CONSTITUENT	PQL (UG/L)	ORGANIC CONSTITUENT	PQL (UG/L)
(16) ACETONE	100	(40) T-1,3-DICHLOROPROPENE	10
(17) ACRYLONITRILE	200	(41) ETHYLBENZENE	5
(18) BENZENE	5	(42) METHYL BUTYL KETONE	50
(19) BROMOCHLOROMETHANE	5	(43) METHYL BROMIDE	10
(20) BROMODICHLOROMETHANE	5	(44) METHYL CHLORIDE	10
(21) BROMOFORM	5	(45) METHYLENE BROMIDE	10
(22) CARBON DISULFIDE	100	(46) METHYLENE CHLORIDE	10
(23) CARBON TETRACHLORIDE	10	(47) MEK; 2-BUTANONE	100
(24) CHLOROENZENE	5	(48) METHYL IODIDE	10
(25) CHLOROETHANE	10	(49) METHYL ISOBUTYL KETONE	100
(26) CHLOROFORM	5	(50) STYRENE	10
(27) CHLORODIBROMOMETHANE	5	(51) 1,1,1,2-TETRACHLOROETHANE	5
(28) DBCP	25	(52) 1,1,2,2-TETRACHLOROETHANE	5
(29) ETHYLENE DIBROMIDE	5	(53) TETRACHLOROETHYLENE	5
(30) O-DICHLOROENZENE	5	(54) TOLUENE	5
(31) P-DICHLOROENZENE	5	(55) 1,1,1,-TRICHLOROETHANE	5
(32) T-1,4-DICHLORO-2-BUTENE	100	(56) 1,1,2-TRICHLOROETHANE	5
(33) 1,1-DICHLOROETHANE	5	(57) TRICHLOROETHYLENE	5
(34) ETHYLENE DICHLORIDE	5	(58) CFC-11	5
(35) VINYLIDENE CHLORIDE	5	(59) 1,2,3-TRICHLOROPROPANE	15
(36) CIS-1,2-DICHLOROETHENE	5	(60) VINYL ACETATE	50
(37) T-1,2-DICHLOROETHENE	5	(61) VINYL CHLORIDE	10
(38) PROPYLENE DICHLORIDE	5	(62) XYLENES	5
(39) CIS-1,3-DICHLOROPROPENE	10		

SO KNOWN AS: (21)-TRIBROMOMETHANE, (25)-ETHYL CHLORIDE, (26)-TRICHLOROMETHANE, (27)-DIBROMOCHLOROMETHANE, (28)-1,2-DIBROMO-3-CHLOROPROPANE, (29)-1,2-DIBROMOETHANE, (30)-1,2-DICHLOROENZENE, (31)-1,4-DICHLOROENZENE, (33)-ETHYLIDENE CHLORIDE, (34)-1,2-DICHLOROETHANE, (35)-1,1-DICHLOROETHENE (ETHYLENE), (36)-CIS-1,2-DICHLOROETHYLENE, (37)-TRANS-1,2-DICHLOROETHYLENE, (38)-1,2-DICHLOROPROPANE, (42)-2-HEXANONE, (43)-BROMOMETHANE, (44)-CHLOROMETHANE, (45)-DIBROMOMETHANE, (46)-DICHLOROMETHANE, (47)-METHYL ETHYL KETONE, (48)-Iodomethane, (49)-4-METHYL-2-PENTANONE, (53)-TETRACHLOROETHENE, PERCHLOROETHYLENE, (54)-METHYLCHLOROFORM, (57)-TRICHLOROETHENE, (58)-TRICHLOROFLUOROMETHANE