

ARKANSAS DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY  
8001 National Drive  
Little Rock, Arkansas 72209

14-0028

PERMIT  
FOR THE CONSTRUCTION AND/OR OPERATION  
OF A SOLID WASTE DISPOSAL  
FACILITY

CLASS III

*Modified, minor, see condition ten  
24 Oct 88  
Daughter, PE*

Permit No. 232-S

EFFECTIVE DATE April 17, 1987

TO: Ethyl Corporation  
State Highway 79 South  
Magnolia, Arkansas 71753

Location: Six miles south of Magnolia  
Off of State Hwy. 79, Columbia Co.

Engineer: Staff and Southwestern Laboratories  
Magnolia, Arkansas

This permit is your authority to construct and/or operate the Solid Waste Disposal Facility set forth in your application dated May 30, 1986. This permit is issued pursuant to the provisions of the Arkansas Solid Waste Management Act (Act 237 of 1971; Sec. 82-2701 et seq., Ark. Stats.), hereinafter called the "Act", the Arkansas Solid Waste Management Code, hereinafter called the "Code", and all other applicable rules and regulations of the Department of Pollution Control and Ecology, hereinafter called "Department", and the following terms and conditions:

1. The disposal facility shall be constructed, maintained, and operated in accordance with the final plans and specifications as approved by the Department and in compliance with all applicable provisions of the Act, the Code, and all other applicable rules and regulations.

2. This permit shall automatically terminate unless construction of the disposal facility has been commenced within 180 day(s) of the date hereof and completed with all reasonable diligence. The Department shall be notified in writing when the disposal facility has been completed in order that it may be inspected.

3. The disposal facility shall be operated by qualified personnel and maintained in good operating condition at all times.

4. This permit may be revoked or modified whenever, in the opinion of the Department, the facilities are no longer in compliance with the Act, the Code, and applicable rules and regulations. This permit shall not relieve the permittee, its agents or employees, from compliance with all provisions of the Act and the Code.

5. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the disposal facility.

6. This permit is issued in reliance upon the statements and representations made in the application and the plans and specifications and the Department has no responsibility for the adequacy or proper functioning of the disposal facility.

PLEASE SEE ATTACHED SHEET FOR ADDITIONAL CONDITIONS.

Approved:

DEPARTMENT OF POLLUTION CONTROL & ECOLOGY

By Shyllis Moore  
Director

4/17/87

Date

## ADDITIONAL PERMIT CONDITIONS

7. Consulting firms specializing in soil mechanics and quality assurance will conduct soil testings (including internal natural materials layers) and monitor the quality control plan throughout construction.
8. One foot of the foundation subbase (not including the lower clay liner) shall be scarified, mixed and recompactd in six inch lifts at optimum moisture content to within 95% of standard proctor density. Any soils found to be weak or compressible, as found in other areas of the plant site and indicated in Ware Lind's Engineers' April 2, 1986 Geotechnical Report, shall be removed and not used as subbase foundation material. Any soil used in the construction of the structure shall have a compressive strength which exceeds the load bearing requirement with a safety factor of three.
9. All tailpond solids placed in the vault shall be covered immediately with a minimum of one foot of soil having a permeability of  $1 \times 10^{-6}$  cm/sec or less, or covered with a 20 mil synthetic membrane. Upon Ethyl's written request, the Department will consider uncovered spreading of tailpond solids in the vault for additional drying, but only during the low rainfall months of June - October. Detailed records of the moisture content of the waste must be kept during this period and a written report of the results submitted to the Department by the second week in October.
10. The depth of the <sup>twenty feet</sup> tailpond solids placed in the storage vault shall not exceed ~~ten feet~~ as measured from the top of the clay base to the bottom of the final top soil cover.
11. Each of the five groundwater monitoring wells to be located prior to waste disposal shall be analyzed quarterly during the first year of operation and twice annually thereafter unless more frequent monitoring is deemed necessary by the Department. Results submitted to the Department after each analysis shall include the following parameters: Chlorides, Total Dissolved Solids, Chemical Oxygen Demand, pH.
12. This Class III landfill shall be closed out in accordance with the provisions of the Arkansas Solid Waste Management Code. The permit may remain active after final closure due to the need for long term ground water monitoring and maintenance of the structure.

13. The waste sludge solids shall be characterized every six months by analysis performed on a representative sample. Analysis shall be made for those components listed below. This list could be revised after the first year of monitoring. Results shall be submitted to the Department twice per year.

H <sub>2</sub> O	S=
Cl <sup>-</sup>	Diethylchlorothiophosphate
Mg	EDB
Al	Ca
M <sub>n</sub>	Na
SO <sub>4</sub>	Fe
	K
	S total
C <sub>16</sub> alkyldimethylamine	Br
C <sub>14</sub> alkyldimethylamine	C <sub>18</sub> alkyldimethylamine
Ba	Tetrabromobiosphenol - A
C <sub>12</sub>	C <sub>10</sub>
PO <sub>4</sub>	NO <sub>3</sub>
	F <sup>-</sup>
	Toluene
	Methyl bromide
	% solids in sludge influent to vaults, (6 month aver.

14. Only dewatered sludge from the tailpond shall be placed in the storage vault. Composite sampling shall be conducted and records kept on file at Ethyl fully documenting the moisture content of the dewatered sludge applied to the vault before any additional drying in the vault.
15. The total amount of financial assurance required is \$4,500.00. Acceptable mechanisms for financial assurance include a surety bond or a collateral bond (supported by a letter of credit, securities, or cash). The instruments used must be in the exact form set forth in Appendix B of the Code and must be filed with the Department before the permit can become effective. The purpose of the financial assurance is to ensure an environmentally-sound closure of the site upon completion of the landfiling operation.
16. This permit is issued for the disposal of dewatered tailpond sludge with chemical characteristics as detailed in the application information. Any change in loading to the tailpond that could cause the sludge characteristics to change will be considered significant and require application for permit modification.

17. No standing liquid will be allowed in the disposal vault. All storm water shall be promptly removed to the plant wastewater treatment system.
18. Waste disposal operations at this site shall not commence until an initial permit application fee in the amount of \$168.00 is received and acknowledged by the Department. This fee shall be submitted in accordance with Section 10 of Regulation No. 9: Permit Fees. Failure to pay annual permit fees when due may result in revocation of this permit.
19. As an adjunct to the additional conditions listed above, the permittee is reminded that the provisions of Condition No. 1 of this permit shall also be satisfied in the construction, operation maintenance and closure of the landfill.