

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

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

EFFECTIVE DATE July 20, 1992

Permit No. 262-S

Reynolds Metals Company
3701 S. Reynolds Road
Bauxite, AR 72011

This permit is your authority to construct and/or operate the Solid Waste Disposal Facility set forth in your application dated January 30, 1992. 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 
for Director

22 July 92
Date

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7. This permit shall expire when the approximate 37 acre disposal area described in the final engineering plans has been filled to design capacity and is closed out in accordance with the provisions of the Arkansas Solid Waste Management Code as Amended. Post closure maintenance and monitoring will be a minimum of 30 years after closure and may be extended due to the necessity of leachate management or other factors.
8. Waste disposal operations at this site shall not commence until an initial permit application fee in the amount of \$3500.00 is received and acknowledged by the Department. This fee shall be submitted in accordance to Section 10 of Regulation 9: Permit Fees. Failure to pay annual permit fees when due may result in revocation of this permit.
9. Proper preparation of the site shall be supervised and reported in writing to the Department by a Registered Engineer prior to placement of any waste in the landfill.
10. In addition to the four wells proposed for permanent monitoring which are shown on Construction Drawing 500-C-102 (MW-1, MW-2, MW-3, & MW-4), the following additional wells are required:
 - (a) Well cluster 5A and B located 300 feet south-southeast of MW-3 & MW-4 on the west side of new access road shown on Construction Drawing 500-C-102.
 - (b) Well cluster 6A & B located 600 feet south-southeast of MW-3 & MW-4 on the west side of new access road shown on Construction Drawing 500-C-102.
 - (c) Well cluster 7A & B located 900 feet south-southwest of MW-1 & MW-2 just inside fenceline on west side of county road shown on Construction Drawing 500-C-102.

All new well clusters shall have a well with a ten (10) foot screen across the water table surface in the Arkadelphia Marl and a second well screened in the upper portion of the Nacatoch Sand.

Additional wells will be required on subsequent fill areas. These wells must be located with Department approval and installed prior to construction of subsequent fill areas.

11. Each of the 10 groundwater monitoring wells shall be sampled quarterly for the first year of operation, and twice annually thereafter unless more frequent monitoring is deemed necessary by the Department. Results are to be submitted directly to the Department from the contract laboratory and shall include the following parameters:

Water level	Turbidity
Antimony	Nickel
Cyanide	Selenium
Arsenic	Silver
Barium	Thallium
Beryllium	Vanadium
Cadmium	Zinc
Chromium	Iron
Cobalt	Chloride
Copper	Total Dissolved Solids
Lead	Sulfate
Fluoride	pH
Specific Conductance	

12. An appropriate sampling and analysis plan shall be submitted to the Department for approval prior to the receipt of waste.
13. A statistical method for evaluating increases (or decrease in the case of pH) in inorganic parameters in groundwater must be selected and approved by the Department prior to the receipt of waste at the facility.

In addition a contingency plan outline must be developed and approved by the Department listing the logical sequence of measures to be taken by the permittee in the event of a statistically significant increase in inorganic parameters.

14. This facility is for the disposal of 300,000 cubic yards per year of treatment residue from Reynolds Metals pot liner treatment process. All other wastes requiring specified written authorization as identified in the Arkansas Solid Waste Management Code shall obtain this authorization from the Arkansas Department of Pollution Control and Ecology prior to disposal.

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15. Any change in ownership or control of the operation of this landfill will be considered a modification of the permit. Failure to notify the Department of a change in ownership or a change of operators will be cause for revocation of this permit. Change in ownership or control is determined by a change of five percent (5%) or more.
16. As an adjunct to the additional conditions listed above, the permittee is reminded that the provisions of Condition #1 of this permit shall also be satisfied in the construction, operation and maintenance of the landfill.
17. The proper construction of each area shall be certified by a Registered Professional Engineer prior to the placement of waste. Along with each area certification, a report must be submitted addressing the following components of the design and operation: surface water diversion; access roads on site; proper compaction of waste; amount of waste received; final cap construction; established vegetation on completed areas; quantity of leachate/liquids removed from wells and disposition of the leachate; quality control records for the construction of the clay and artificial liners; and other information deemed necessary. The bottom of each excavation shall be scarified and recompacted wet of optimum moisture content to 95% of standard proctor density, in (4) four (6) six inch lifts and must have a hydraulic conductivity of .0000001 centimeters per second or less.

The entire area over the recompacted clay bottom shall be lined with a sixty (60) mil high density polyethylene liner or equivalent. Certification of the leachate collection system liner shall be provided to the Department. The submitted area certification reports shall contain the results of the compaction density testing. These engineering reports shall be submitted every four months to the Solid Waste Division.

Clays utilized in the construction of the clay liner shall meet the following specifications:

- Fines content of the soil must exceed 30% (material passing the #200 sieve).
- The Plasticity Index of the liner soil must be greater than 10%

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- The material passing the #4 sieve must compose less than 20% soil by weight.
- No particles greater than 1 inch in diameter shall be present within the liner soil.

A quality control plan for clay liner construction must be developed which includes the following minimum testing requirements for the borrow sources:

- Particle size 1 test per 2500 yd³
- Atterburg limits 1 test per 1000 yd³
- Permeability 1 test per 5000 yd³
- Water content 1 test per 1000 yd³
- Moisture/density/permeability comparison, 1 comparison per 5000 yd³

The following test and test frequencies must be conducted on each lift after placement and compaction:

- Water content 9 test per acre per lift
- Density 9 test per acre per lift
- Permeability (Shelby Tube Sample) 1 test per acre per lift

18. Leachate will be treated/managed in a manner approved in advance by the Department. The quality and quantity of leachate produced shall be analyzed and measured as determined by the Department. Leachate storage capability is subject to Department approval, based on actual leachate flow rate.

Approval must be obtained from the Department prior to the leachate being transported to a sewage treatment plant or alternate disposal site. The quantity of leachate and other liquids, and the proposed treatment/disposal site must be submitted as part of the disposal approval request. Department approval must be received prior to any changes in leachate disposal/management methods.

Leachate analysis shall be conducted prior to disposal, or as directed by the Department. Volume measurements shall be made weekly. Results shall be submitted directly from the contract laboratory to the Department after each monitoring period, and shall include the following: Volume produced, Chlorides, Total Dissolved Solids, Chemical Oxygen Demand, pH, Zinc, Copper, Nickel, Lead, Chromium, Cadmium, Fluoride, Cyanide, Barium, and Total Organics.

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19. Leachate shall not be left to accumulate on the landfill bottom liner. Leachate removal and management shall be accomplished so as to maintain less than one half foot (six inches) hydraulic head on all of the bottom liner area at all times. If leachate must be stored on site, above ground tanks must be utilized. Storage tanks must be available on site prior to receipt of waste. Equipment for dewatering the leachate system must be obtained prior to the receipt of waste. Sufficient financial resources must be available to manage the collection, storage and disposal of leachate.
20. Seeding and soil stabilization shall be conducted in the spring and fall on all closed out surfaces. Furthermore, vegetation shall be established immediately after final elevations are completed. Water for irrigation from the sediment basins may be used.
21. Vegetation shall be mowed at least semi-annually or more frequently to ensure the establishment of good vegetative growth and allow for inspection of final cover maintenance.
22. The amount of financial assurance required is \$185,000.00. 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.

A portion or all of the financial assurance may be held by the Department beyond the normal closure dates as set forth in the Code, due to post-closure consideration for maintenance of the leachate collection system. Since the operational plan is incremental, the financial assurance can be provided in stages upon approval by the Department.

The financial assurance amount, as determined herein, must be maintained at the initial amount at all times in order to cover the provisions of Act 531 of 1989, unless other arrangements are met to cover these provisions. Any other arrangements must be approved in writing by the Department. No waste disposal is to take place until financial arrangements are approved by the Department.

23. The Department, its employees, agents or any authorized person shall have the right to enter the property at any time for any reason as set out in the Arkansas Solid Waste Code for the purpose including but not limited to taking of samples, inspection, and any other enforcement or engineering action, without interference or delay from the permittee.

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24. The as-built grades/elevations as shown on the approved blueprints shall not be adjusted due to settling/consolidation of the waste mass. Therefore, the actual final grades/elevations after closure/post-closure will be lower than as-built grades/elevations as shown on the approved blueprints.
25. Any waste stream not specifically listed in the permit application special material section, shall not be disposed without specific written authorization from the Department.
26. Any areas of excavation; for construction of the landfill disposal area, the borrow area(s) for cover materials, or for other purposes, shall be reclaimed in accordance with Department requirements.