

66-01071



STATE OF ARKANSAS
DEPARTMENT OF POLLUTION CONTROL AND ECOLOGY

8001 NATIONAL DRIVE, P.O. BOX 8913
LITTLE ROCK, ARKANSAS 72219-8913
PHONE: (501) 562-6533
FAX: (501) 562-2541

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

CLASS I, CLASS IV, AND COMPOST FACILITY

Permit No. 266-S

EFFECTIVE DATE April 27, 1993

City of Little Rock
Public Works Department
701 West Markham
Little Rock, AR 72201

Location: In portions of Sections 9 & 10, T-1-S,
R-12-W, Pulaski County, Arkansas.
Approximately 1/2 mile southeast of
intersection of Highways 338 and 367.

This permit is your authority to construct and/or operate the Solid Waste Disposal Facility set forth in your application dated January 15, 1993. 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. States.), 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

Lawrence Small
Director

4-27-93

Date

7. This permit is for 240 acres with 128 acres to be landfilled (110 acres Class I and 18 acres Class IV). The permit will expire when the 128 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 the site shall not commence until an initial permit application fee in the amount of \$3,500.00 is received and acknowledged by the Department. The 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 the permit.

9. The amount of financial assurance required is \$192,000.00. 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. After April 9, 1994, the permittee must comply with Federal Financial Assurance Criteria (40 CFR Part 258, Subpart G) for closure, post-closure care, and corrective action.

A portion or all of the financial assurance may be held by the Department beyond the time of completion of the landfilling operation to ensure satisfactory closure and post-closure care in accordance with the Code and Act 531 of 1989.

10. In addition to the Arkansas Solid Waste Management Code as Amended and permit conditions herein, the permittee must comply with requirements of 40 CFR Part 258 - Solid Waste Disposal Facility Criteria: Final Rule, October 9, 1991 (Subtitle D).

11. The permittee shall maintain an Operating Record on-site (or at an alternative location approved in writing by ADPC&E) of all documentation, monitoring or test results, records, and certifications required by Subtitle D, the Solid Waste Management Code, the facility Operation and Maintenance Manual, and/or permit conditions herein. The permittee shall forward a copy of information from the Operating Record to ADPC&E when requested by the Department.

12. 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. The report shall include a summary of quality assurance/quality control (QA/QC) results for the clay liner system and the HDPE liner system, a map indicating the location and extent of actual liner installation, the total linear feet of HDPE liner seamed, and the total area of liner installed (square feet). Each subsequent Area (or portion of an Area) of the Class I facility shall similarly be supervised and reported in writing to the Department by a Registered Engineer prior to placement of waste in that Area. All test results, inspection results,

reports, acceptances, certifications, minutes, memorandums, shop drawings, layout plans, as-built drawings, submittals, and documentation required by the plans/specifications, contract documents, QA/QC plans, and/or permit conditions herein shall be maintained in the facility Operating Record for review by authorized regulatory personnel.

Procedures for re-construction, repair, or replacement of deficient portions of the clay liner system or the HDPE liner system shall be included in QA/QC plans. This shall include verification of repairs and re-testing to insure compliance with the plans/specifications, contract documents, and permit conditions herein.

13. Quality Assurance Testing For Earthwork

Test, test method, minimum test frequency, and passing criteria for the following materials shall be in accordance with Table 1 - Earthwork Testing Requirements, Section 02200 - Earthwork, Part II - Technical Specifications, Contract No. 1 of the Contract Documents:

- Prepared Subgrade
- Class I Landfill Liner
 - Clay Liner Layer
 - Common Backfill Layer
- Class IV Landfill Layer
- Clay for Compost Facility

A written Quality Assurance/Quality Control (QA/QC) plan for the construction of the clay liner systems shall be prepared prior to initiation of construction. The QA/QC plan shall include procedures and safeguards that will be implemented to protect the clay liner from damage from equipment, stormwater, desiccation, and freezing.

14. High Density Polyethylene (HDPE) Liner System

A written Quality Assurance/Quality Control (QA/QC) plan for construction of the HDPE liner system shall be prepared prior to initiation of construction. The QA/QC plan shall include the following minimum testing requirements:

Non-Destructive Testing

All field seams shall be nondestructively tested over their full length using either air pressure testing, vacuum test unit, or other method approved in writing by ADPC&E. Continuity testing shall be carried out as the seaming work progresses, not at the completion of all field seaming. Results of seam testing shall be recorded daily on Daily Progress Reports.

For air pressure testing, the following criteria must be met:

<u>Sheet Thickness</u>	<u>Test Pressure</u> psi		<u>After 5 Minutes</u> <u>Max. Pressure</u> <u>Drop Allowed</u>
	<u>Min.</u>	<u>Max.</u>	
60 mil	27	30	3 psi
80 mil	27	30	3 psi
≥ 100 mil	30	30	3 psi

For vacuum testing, no bubbles should appear with vacuum of 5 psi after a minimum dwell time of 15 seconds.

Destructive Testing

Pass/Fail Criteria for HDPE Seams:

<u>Test</u>	<u>Liner Thickness (mils)</u>			<u>Minimum</u> <u>Testing</u> <u>Frequency</u>
	<u>60</u>	<u>80</u>	<u>100</u>	
Shear (ASTM D3083)	126 ppi	171 ppi	216 ppi	1/500' of weld
Peel (ASTM D413)	70 ppi	95 ppi	115 ppi	1/500' of weld

ppi = pounds per inch width

The QA/QC plan for the HDPE liner system shall include procedures and safeguards that will be implemented to protect the HDPE liner from damage during transport, storage, layout, installation, construction (through placement of drainage layer material over the liner), and operation of the landfill.

15. Piezometers/Monitor Wells

Each piezometer/monitor well shall be designed and constructed in accordance with ASTM D5092 - "Design and Installation of Groundwater Monitoring Wells in Aquifers." Landfill plans shall be revised to include location, unique sequence number or designation for each well, and details of all piezometers. Each installed piezometer shall be permanently marked with the appropriate unique identification sequence number or designation corresponding to the plans.

16. The static water level in each of the seventeen (17) piezometers/monitor wells shall be monitored and reported to the Department at least once per quarter during the active life of the facility to ensure that groundwater maintains a positive gradient toward the landfill. If a positive inward hydraulic gradient is not maintained for two consecutive events, the permittee must notify the Department for a determination of whether installation of an alternate groundwater monitoring system may be required. Monitoring of piezometers may be reduced in frequency or suspended during the closure and post-closure periods, provided the permittee makes such request in writing to ADPC&E and supports the request with a summary and analysis of historical results indicating that monitoring at less frequent intervals would be appropriate.

17. Monitor wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-5A, MW-6, MW-7 and MW-8, and groundwater from the Gradient Control Sump(s) shall be independently sampled and analyzed prior to the receipt of waste in order to obtain background water quality data. Groundwater sampling and analysis shall comply with the requirements of Subpart B of 49 CFR Part 258 (Subtitle D). A minimum of four independent samples from each piezometer and the Gradient Control Sump(s) must be collected and analyzed during the first semiannual sampling event and reported to the Department.

Groundwater shall be removed from the Gradient Control Sump(s) at intervals sufficient to avoid the buildup of hydrostatic pressure upon the landfill bottom liner system.

Groundwater from the Gradient Control Sump(s) must be sampled, analyzed, and reported quarterly for the first year of operation, and twice annually thereafter unless more frequent monitoring is deemed necessary by the Department.

The total groundwater flow that is pumped from the Gradient Control Sump(s) shall be monitored and recorded at least once per week. The total groundwater flow for each quarter (first year of operation) and semi-annually (thereafter) shall be reported along with groundwater analytical results. The flow shall be measured by standard flow meter approved by the Department, or by the timed-pump method. If the timed-pump method is used, the permittee shall install permanent run-time meters on each gradient control sump pump and maintain records of pump calibrations.

In the event the groundwater gradient control system does not function as designed, the Department may require revision of the system or an alternate monitoring system.

18. Sampling of groundwater and measurement of static water levels shall only be done by trained personnel familiar with proper procedures and techniques. Analysis of groundwater samples shall be performed only by wastewater testing laboratory(ies) certified by ADPC&E. Results are to be

submitted directly to the Department from the contract laboratory and shall include the following parameters:

- Water level normalized to sea level
- Ammonia (as N)
- Bicarbonate
- Calcium
- Chloride
- Iron
- Magnesium
- Manganese
- Nitrate
- Potassium
- Sodium
- Sulfate
- Total Organic Carbon
- Total Dissolved Solids
- Turbidity
- pH
- Appendix I constituents of 40 CFR Part 258

Analysis of Appendix I volatile organic compounds (VOCs) shall be according to EPA Methods 624 and 625 utilizing method detection limits rather than practical quantitation limits (PQLs). Sampling parameters are subject to revision by the Department at any time.

Monitoring wells in which turbidity values exceed 5 Nephelometric Turbidity Units (NTU) must be redeveloped. If the turbidity remains above 5 NTU, the integrity of the well must be evaluated by a qualified groundwater scientist. If the well is found to be unreliable it must be replaced prior to the next scheduled sampling event.

19. The permittee must develop a comprehensive written plan for sampling and analysis of groundwater that ensures accurate groundwater monitoring results. The plan must be submitted to the Department for approval prior to receipt of waste at the facility. The plan must include procedures and techniques for:

- Sample Collection
- Sample Preservation and Shipment
- Analytical Procedures
- Chain of Custody Control
- Quality Assurance and Quality Control

20. A statistical method to be used for evaluating monitoring results for each groundwater constituent must be selected by the permittee and approved by the Department prior to the receipt of waste. The method selected must meet the requirements of Section 258.53 of 40 CFR Part 258. The permittee must determine whether there is a statistically significant increase (or decrease in the case of pH) for each groundwater monitoring constituent in conformance with the requirements of Section 258.53 of 40 CFR Part 258.

21. If a statistically significant increase over background has been detected for one or more of the Appendix I constituents, the permittee must proceed with an assessment monitoring program in accordance with Section 258.55 of 40 CFR Part 258, including sampling and analyzing for Appendix II constituents.

If one or more of the Appendix II constituents has been detected at a statistically significant level exceeding the groundwater protection standards defined under Section 258.55(h) or (i) of 40 CFR Part 258, the

permittee must initiate an assessment of corrective measures in accordance with Section 258.56. Based upon the results of the assessment, the permittee must proceed with selection of a remedy in accordance with Section 258.57 and then proceed with implementation of a corrective action program in accordance with Section 258.58.

22. This facility is for the disposal of all waste eligible for a Class I sanitary landfill including the following special materials (as listed in Appendix "A" of the Arkansas Solid Waste Management Code-March 23, 1984):

- Friable Asbestos Material
- Dead Animals
- Condemned Food
- Spent Pesticide & Herbicide Containers (from City Services Only)

Disposal of "special materials" shall be handled in accordance with Appendix "A" of the Solid Waste Management Code. Written approval from the Department must be obtained prior to disposing of all other "special materials" not listed above.

The permittee shall maintain a list of industrial customers of the facility and information about the nature of each industrial waste disposed at the facility. Information about the nature of industrial wastes may be maintained on ADPC&E's "Industrial/Special Waste Disposal Request" forms or on similar forms prepared by the permittee and approved by the Department.

23. Disposal of bulk liquid waste in the landfill is prohibited. "Liquid waste" is waste which contains "free liquids" as defined by Method 9095 (Paint Filter Liquids Test) as described in EPA Publication No. SW-846.

24. Any proposed transfer of this permit will require submission of a permit modification application, a disclosure statement in accordance with Act 454 of 1991, and the documentation noted in Section IX of the Solid Waste Management Code. A decision to approve or deny a permit transfer request will be made by the Department pursuant to the provisions of Act 454 and Section IX of the Code.

25. Leachate shall be removed from Leachate Sumps at intervals sufficient to avoid ponding of leachate upon the 60-mil HDPE geomembrane bottom liner of the landfill; the maximum allowable depth (head) of leachate upon any portion of the geomembrane bottom liner at any time is 12 inches (30 cm).

The total flow removed from each Leachate Sump by leachate sump pumps shall be monitored and recorded at least once per week. The total leachate flow for each quarter (first year of operation) and semi-annually (thereafter) shall be reported along with groundwater monitoring data (Conditions 16., 17. & 18. herein). The flow shall be measured with standard flow meter approved by the Department, or by the timed-pump

method. If the timed-pump method is used, the permittee shall install permanent run-time meters for each leachate sump pump and maintain records of pump calibrations. Leachate removed from sumps shall be pumped to the Leachate Pond and thence discharged to the Little Rock Sanitary Sewer System in accordance with requirements of the Little Rock Wastewater Utility (LRWWU). Records of all leachate flow monitoring and testing specified in the Operation and Maintenance Manual, required by the LRWWU, and/or required in permit conditions herein shall be maintained by the permittee in the facility Operating Record for review by authorized representatives of ADPC&E.

Discharge of leachate to the Detention Pond or to surface drainage is prohibited.

26. The permittee must cover disposed waste (Class I facility) with at least six inches of soil at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.

Alternative materials for daily cover, such as synthetic materials, shall only be used when specifically authorized in writing by ADPC&E. Any alternative for daily cover that is proposed by the permittee must comply with Department guidelines and include specific written operating procedures that will be implemented to control disease vectors, fires, odors, blowing litter, and scavenging. The use of synthetic material will not be authorized unless it is incorporated within operating procedures that also rely on the use of at least six inches of soil for daily cover on some days; any proposal for daily cover based solely upon full-time use of synthetic material will not be approved.

27. Seeding and soil stabilization shall be conducted in the spring and fall on all exposed surfaces. Furthermore, revegetation shall be accomplished immediately after final elevations are completed. Cover vegetation shall be properly mowed at least once per month during the growing season so that proper inspection of the cover can be made.

28. Sediment control fences shall be constructed and maintained in the drainage channels of the active areas of the site. Sediment shall be removed to keep channels open and the soil replaced at the source as required.

29. Erosion and sediment control measures shall be implemented at all soil borrow areas both within and outside of the 240 acre permit area that are used in conjunction with landfill construction or operation (such as for clay material for bottom liner, soils for daily or intermediate cover, or clay material for final cover). The permittee shall maintain a map in the Operating Record showing the locations of all off-site borrow areas so that ADPC&E can periodically evaluate the effectiveness of erosion/sediment control measures at each site. In addition to the location map, the permittee shall also maintain map(s) of each borrow site

indicating site boundaries and area (acres), and the name, address and phone number of the contractor or operator of each borrow site.

Borrow sites may also be subject to stormwater permitting requirements under the NPDES Permit system. Stormwater permitting requirements may vary from site to site; the contractor or operator of each borrow site should contact the NPDES Branch of ADPC&E (phone number: 570-2160) before work is begun at a site.

30. Litter control fences shall be maintained in the active fill areas for the control of blowing litter.

31. The final grades/elevations as shown on the approved engineering plans shall not be adjusted due to settling/consolidation of the waste mass. Therefore, the actual final grades/elevations after closure/post closure may be lower than that indicated on approved plans.

32. Disposal of ash or wastewater treatment plant sludges, other than from a strictly domestic source, shall not be placed in the landfill without Department authorization. Such disposal may require modification of the permit.

33. Petroleum contaminated or other contaminated soils shall not be placed in the landfill without Department authorization.

34. Operations at the facility shall be under the supervision of an on-site sanitary landfill operator with the appropriate license as required by Regulation No. 27 of ADPC&E.

35. Any statements in the Engineering Report or Operation and Maintenance Manual that conflict with the Solid Waste Management Code, 40 CFR Part 258 (Subtitle D), and applicable laws shall not be considered authorized by the Department.

36. 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.

37. As an adjunct to the additional conditions listed above, the permittee is reminded that the provisions of Condition No. 1 of this permit must also be satisfied in the construction, operation and maintenance of the facility.

38. COMPOSTING FACILITY

A. Materials for composting may include yard waste and similar materials including grass clippings, leaves, brush, and tree prunings. Waste materials other than yard waste shall not be composted at the site without specific authorization from the Department.

B. Authorization for composting operations may be discontinued if nuisance or odor problems develop at the composting site.

C. Storm water runoff from the compost pad shall be routed to the Compost Facility Detention Pond. Any runoff that is not reused in the composting operation shall be routed to the Solid Waste Facility Detention Pond, or treated in an alternate manner approved in writing by ADPC&E.

D. The volume (or weight) of raw material that is added to the compost operation and of compost material that is removed from the compost site shall be monitored and recorded each operating day. The amounts in cubic yards/day (or pounds/day or tons/day on a weight basis) shall be maintained along with other records of the facility for review by authorized representatives of ADPC&E.

E. The finished compost shall be analyzed for heavy metals (Cd, Cu, Pb, Ni & Zi), pH, and total solids at least semi-annually. Test results shall be maintained in the facility Operating Record along with the results of any other tests specified in the Operation and Maintenance Manual.

F. The compost use shall not conflict with any restriction, current or future, by the Arkansas State Plant Board.
