ARKANSAS
ENERGY & ENVIRONMENT

April 29, 2022

Torrey Lougin
Acting Director
P.O. Box 1908
Fort Smith, AR 72903

**RE: Issuance of Minor Permit Modification for City of Fort Smith Sanitary Landfill, Class 1**
**Permit No: 0267-S1-R1 AFIN: 66-00226**
**Document No: 81160, Cross Reference No: 80862, 81057, 81088, and 81113**

Dear Mr. Lougin:

DEQ has made a final decision to issue a minor permit modification to increase capacity of the landfill by 0.9% (from 72,607,000 cu yds to 73,260,463 cu yds), modify the base elevation grades, recontour leachate drainage to minimize bed-rock cuts, and raise perimeter berm to accommodate the raised floor to ensure a minimum of four (4) feet of waste containment along the perimeter for Cell A-6 and increase the capacity of the City of Fort Smith Sanitary Landfill facility as described in your applications submitted on September 23, 2021 and November 2, 2022.

The permit is granted subject to the terms and conditions specified in the permit. Please review all terms and conditions of the permit to ensure compliance with all applicable requirements.

If you wish to appeal this matter, your appeal must be filed in accordance with Arkansas Pollution Control & Ecology Commission's (APC&EC or Commission) Regulation No. 8, available at www.adeq.state.ar.us. If you have any questions regarding the appeal procedure, please contact your attorney. All appeal procedures must be filed with the Commission's Secretary who is located at 101 E. Capitol, Suite 205, Little Rock, Arkansas 72201. For directions to the Commission's office, call (501) 682-7893.

Sincerely,

Jarrod Zweifel, P.G.
Associate Director, Office of Land Resources
Division of Environmental Quality
5301 Northshore Drive, North Little Rock, Arkansas, 72118-5317

cc: Daniels, Cusher, Jones, Gilkey, Krou, and Zweifel
Michael Bradford, P.E. SCS Engineers

**PERMIT**

**FOR THE CONSTRUCTION AND OPERATION OF A SOLID WASTE DISPOSAL FACILITY**

**ISSUED BY**

**STATE OF ARKANSAS**
**DIVISION OF ENVIRONMENTAL QUALITY**
**Office of Land Resources**

**City of Fort Smith Sanitary Landfill Class 1 Landfill**

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| Permit Number | 0267-S1-R1 |
| AFIN | 66-00226 |
| Effective Date | August 4, 2003 |
| Permit Owner & Address | City of Fort Smith Sanitary Landfill<br>5900 Commerce Road |
| Facility Site Name & Address | City of Fort Smith Sanitary Landfill<br>5900 Commerce Road<br>Fort Smith, Sebastian County, AR 72916 |
| Location | Section 12 & 13, Township 7N, Range 32 West, Sebastian County, Arkansas. |
| Permitted Waste Disposal Area | 555 acres |
| Permitted Waste Disposal Volume | 72,607,000, cubic yards |
| Initial Financial Assurance | $2,377,605.00 |
| Latitude/Longitude | 35°17'33.31772" / 94°22'13.55193" |

**DESCRIPTION OF THIS PERMIT ACTION**: This minor permit modification is to increase capacity of the landfill by 0.9% from 72,607,000 cubic yards to 73,260,463 cubic yards, which will extend the active life by 17 months, modify base elevation grades, recontour leachate drainage, and raise berm to minimum of 4 feet of waste containment.

**PERMIT CONDITIONS**: This permit provides the City of Fort Smith Sanitary Landfill the authority to construct and operate the Solid Waste Disposal Facility set forth in this modification application dated September 23, 2021 (Doc ID 80862 & 81088). This permit modification is issued pursuant to the provisions of the Arkansas Solid Waste Management Act (Arkansas Code Annotated 8-6-201 et seq.) as amended, herein after called the "Act;" Regulation Number 22, Arkansas Solid Waste Management Code, as adopted by the Pollution Control and Ecology Commission, hereinafter

called Regulation 22; and all other applicable rules and regulations of the Division of Environmental Quality, hereinafter called "Division", and the following terms and conditions:

1. This permit is for an approximately 555+acre waste disposal site as indicated on the approved plans. The final grades and elevations shall not be exceeded at any time or in the anticipation of settlement and consolidation of the waste mass. This permit shall expire when the authorized fill elevations have been attained and the facility is closed out in accordance with the provisions of Regulation 22. This permit will remain in effect until it is voided as provided in Reg.22.309(f).

    a. The permittee shall notify the Division in writing upon completion of construction of each disposal unit and upon completion of facility closure in order that it may be inspected.

    b. Changes to or deviations from the construction/layout and operation of the facility, as indicated on the approved facility plans indicated below, and on the approved permit application documentation, are not authorized unless approved in writing by the Division.

    c. The approved application document is filed under the Document Identification Number 19718 & 17751. The approved modification plans are detailed on Sheets 1 through 18 submitted on June 28, 2003 and Base Grading Plan, Document Identification Number 19718 submitted on April 4, 2003. The acreage of disposal area was updated to reflect the appropriate disposal area of the landfill by memorandum with Document Identification Number 20341. The approved modification plans for Final Contour are detailed in Attachment C of Document Identification Number 81113, submitted November 22, 2021.

2. The initial total amount of financial assurance is $2,377,605.00. Of this amount $1,106,745 dollars will be required for closure costs and $ 1,270,860 will be required for the post-closure costs. This amount shall be subject to annual adjustments and may be increased at the discretion of the Division based upon the estimated cost for a third party to close the largest area requiring final cover during the active life of the facility and the cost for a third party to perform post closure care.

    a. The instruments used must be in one of the forms set forth in APC&EC Regulation Number 22 or as otherwise approved by the Division.

    b. Operations allowed under this permit shall not commence until all financial assurance is satisfactorily filed with the Division.

    c. A portion or all of the financial assurance may be held by the Division beyond the time of cessation of disposal operations at the site to ensure satisfactory closure and post closure care in accordance with APC&EC Regulation Number 22

3. This permit is for the disposal of all waste eligible for a Class 1 sanitary landfill and all Class 4 waste including all "special materials" as outlined in APC&EC Regulation No. 22. Special Materials as identified in APC&EC Regulation Number 22 do not require written authorization from the Division, provided the materials not specifically identified by the Special Materials section must be characterized by the generator of the waste prior to

acceptance for disposal in the landfill in accordance with the facility written hazardous waste exclusion program.

4. Each landfill waste cell shall be constructed in the sequence indicated in the approved plans and specifications.

5. The bottom liner system for any newly constructed waste cell must consist of a minimum 60 mil HPDE flexible membrane liner and a minimum of twenty-four inches of compacted clay exhibiting a maximum hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second (cm/s). Should the permittee desire to use any liner system other than a "composite liner" system as defined in Section 22.424 (b) of APC&EC Regulation No. 22, an *Alternative Liner Demonstration* in accordance with Division written guidance on alternative liner design and demonstration shall be submitted to and approved by the Division prior to initiation of construction of the alternative liner system. The Division reserves the right to require the installation of additional groundwater monitoring wells and make other changes to the permit in the event a request to use an alternative liner design is approved.

    a. Proper construction of the bottom clay liner of each waste cell shall be observed and certified to the Division by a Registered Professional Engineer in a Construction Certification Report in accordance with the approved CQA Plan whenever a cell is prepared for use.

    b. The Construction Certification Report shall include CQA/QC test results as indicated in the approved CQA Plan; drawings indicating the location, designation, and extent of area(s) actually constructed for use; and test locations.

    c. The Certification Report shall be submitted to the Division at least fourteen (14) days prior to waste placement in that cell.

6. The final cover system shall be designed according to the specifications set forth in the Closure Plan submitted on June 28, 2002 having Document Identifier Number 17751, and the Minor Modification Application submitted November 22, 2021 having Document Identifier Number 81113.

    a. Closure activities may exceed the 180 days in accordance with Regulation 22.1301 (g).

    b. The permitted Class 1 will encompass the existing Class 4. The construction of the new Class 1 units satisfies the closure and post-closure requirements for the Class 4.

7. Leachate collection removal and leachate storage systems shall be monitored and operated such that free flowing conditions are maintained in the leachate collection system. Leachate which is disposed in publicly owned treatment works (POTW) must comply with 40 CFR Part 403 (U.S. EPA Pretreatment regulations).

8. The post closure maintenance period for this facility shall be a minimum of 30 (thirty) years starting on the date the Division approves the closure activities completed for the facility. The length of the post closure period may be decreased or increased by the Director in

accordance with APC&EC Regulation No. 22.1302(c) (4). A post-closure engineer's Certification Report shall be submitted to the Division within fourteen (14) days after completion of closure activities.

a. Permittee is required to submit for approval at the time of closure, stabilization parameters for the facility.

b. This data will be used in determining the length of the closure activity period according to APC&EC Regulation No. 22.1301(g).

9. Access into the facility along Steep Hill Road will be prohibited by this permit action.

10. In addition to the previously approved design plans, the following plans are also approved for the specified cell and area:

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| Drawing Sheet 1 Cell A-6 Design and Permitting Subgrade Plan | Document #80862 |
| Figure 1 Cell A-6 Construction Improvements Proposed Revision to Cell A-6 Liner Subgrade Plan | Document #80862 |
| Figure 2 Cell A-6 Construction Improvements Profiles | Document #80862 |
| Figure 3 Cell A-6 Construction Improvements Profiles | Document #80862 |
| Cell A-6 Construction Improvements Cell A-6 Leachate Collection System Details | Document #80862 |
| Typical Chimney Drain Placement Plan Diagram | Document #81088 |
| Drawing Sheet 7 Revised General Overall Layout With Final Contours | Document #81113 |

# GROUND WATER MONITORING CONDITIONS

1. A ground water monitoring system shall be established and maintained at the Fort Smith Class 1 landfill that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of ground water quality. The ground water monitoring system for this facility must at all times be properly maintained, be sampled in accordance with the terms and conditions stipulated in this permit and/or comply with the monitoring requirements found in Chapter 12 in APC&EC Regulation Number 22. Once established at this landfill, the monitoring system shall be designed, installed, operated and maintained to perform to design specifications throughout the active life of the facility and into the post-closure care period.

    a. The ground water monitoring system for the CFSL will initially consist of ten (10) monitor wells DT-1, DT-3, DT-4, DT-5, DT-8, DT-9, DT-11, DT-12, DT-13, and DT-15. Wells DT-1, DT-3 and DT- 15 are considered the up-gradient monitoring points.

    b. The current monitor well locations are shown on Figure 63-1; Volume 5 of 5; Permit Modification Application; Class 1 Waste Disposal Area; City of Fort Smith Sanitary Landfill; prepared by Genesis Environmental Consulting, Inc. and Mickel, Wagner and Coleman, Inc.; received June 28, 2002.

    c. The permittee shall expand the ground water monitoring system in phases to coincide with the phased development of the waste disposal area. Figure 63-2; Volume 5 of 5; Permit Modification Application; Class 1 Waste Disposal Area; City of Fort Smith Sanitary Landfill; prepared by Genesis Environmental Consulting, Inc. and Mickel, Wagner and Coleman, Inc.; received June 28; shows the proposed ground water monitoring system. Prior to developing future phases, the permittee shall evaluate and update the ground water monitoring system based on the previous water quality information gathered to facilitate collection of representative ground water samples in the new waste disposal areas.

2. Any new monitor well(s) added to the ground water monitoring system shall be certified by a Registered Professional Geologist or a qualified ground water scientist as stipulated in APC&EC Regulation No. 22.1202(e). Within fourteen (14) days of submitting this certification to DEQ the permittee must notify the Director this monitoring system certification has been placed in the facilities operating record.

    a. The ground water monitoring system certification shall confirm any new monitoring well(s) installed for this facility are capable of yielding water samples that are representative of the uppermost aquifer water quality at the sampling point. Monitoring system certification shall also confirm all monitoring system components have been constructed and installed in an acceptable manner following appropriate ASTM D 5092 well construction protocols.

    b. The permittee shall within thirty (30) days of completing installation or making any changes to the facilities monitoring system notify the Director that the design, installation, development and decommissioning of any monitor wells, piezometers

and other measurement, sampling and/or analytical devices, has been documented and placed in the operating record for this facility.

3. The permittee shall comply with APC&EC Regulation No. 22.1103 (a), which requires following construction, each well shall be developed to the degree necessary to restore formation hydraulic conductivity and ensure retrieval of samples that are representative of formation ground water quality, at this facility.

4. The permittee shall obtain ground water samples which are representative of water quality passing the relative point of compliance specified in APC&EC Regulation No. 22.424(d) for this facility. The down gradient monitoring wells for this facility must be installed at this relative point of compliance.

    a. Each monitoring well shall be sampled in accordance with the approved Sampling and Analysis Plan (SAP) submitted in the permit modification application for this facility; Attachment 63-; Volume 5 of 5; Permit Modification Application; Class 1 Waste Disposal Area; City of Fort Smith Sanitary Landfill; prepared by genesis Environmental Consulting, Inc. and Mikel, Wagner and Coleman, Inv.; received by the SWMD. June 28, 2002.

5. The permittee must establish or have previously established background water quality parameter concentrations in hydraulically up-gradient or background well(s) which have not been affected by leakage from a landfill unit at this facility, in accordance with Regulation 22.1203(e).Any newly installed monitor well or replacement well(s) shall be sampled quarterly for a period of (2) two years to establish back ground and/or up gradient water quality conditions in accordance with Regulation 22.1203(e). Thereafter, any new and/or existing monitor well in the ground water monitoring system shall be sampled semi-annually.

    a. Up-gradient and down-gradient water quality samples from this facility shall be analyzed for Regulation 22, Appendix 1 parameters.

    b. The Director may approve an alternate list of Appendix 1 parameters in accordance with Section Regulation 22.1204(a)(2) for establishing background water quality at this location.

6. Each monitoring well shall be sampled by qualified personnel properly trained and familiar with appropriate procedures and techniques for the collection of ground water samples.

    a. Ground water sampling and analysis shall comply with the requirements of Subpart E of 40 CFR Part 258 as adopted in Regulation 22.

    b. The permittee may utilize low-flow well purge and sampling techniques for monitor well sample collection. Prior to purging the monitor wells, static water level measurements shall be taken, recorded and the data used to establish ground water flow direction in the upper most aquifer. Measurements are to be taken from the surveyed benchmark on the top rim of the well casing.

c. Prior to sampling, turbidity values shall be allowed to stabilize to a level, which is representative of ambient water quality in the formation. If during background or routine sampling, the turbidity values consistently remain above 10 NTU's, a qualified groundwater scientist shall evaluate the integrity of the well, redevelop the well if necessary and/or provide written justification the turbidity values present in the samples are representative of ambient water quality in the formation. If the justification provided by the Permittee for the observed turbidity values is not considered valid, and/or if the well cannot be effectively redeveloped to reduce turbidity values below 10 NTU's, and/or if the well is found to be unreliable for generating representative water quality samples, it must be replaced prior to the next scheduled sampling event.

7. Analysis of ground water samples shall be in accordance with EPA Report SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Vols. IA, IB, IC and II, Third Edition, Rev.1, December 1987 or equivalent as specified in 40 CFR Part 136.

   a. Sample analysis shall be performed by a laboratory that is properly certified by DEQ to run the type of analysis required by Regulation 22.

   b. Analysis for metals shall utilize either Method 6010,a method from the 7000 series or an equivalent. Method detection limits for each parameter must be reported.

   c. Parameter concentrations that are above the Method Detection Limit (MDL) but below the Practical Quantization Limit (PQL) must be reported. Values reported below the PQL will utilize ½ the PQL for statistical evaluation.

   d. The Division may modify the analytical parameters, sampling frequency or the sampling methods required under this permit based on any information received by DEQ, based on the analytical results received for this facility and/or based on new laboratory techniques which may result in more accurate water quality analysis from samples taken at this facility.

8. The permittee must select a statistical method approved by the Division for evaluating water quality monitoring results for each constituent to determine whether a statistically significant increase (or decrease in the case of pH) occurs for each ground water monitoring constituent in conformance with the requirements of Regulation 22.1203 (g) (h) and (i).

9. Ground water monitoring reports shall be submitted to the Office of Land Resources (OLR) in accordance with the dates listed in paragraph 9(a) or 9(b) below, as appropriate. The report shall summarize the results of sampling and include a determination of whether a statistically significant increase over background values has occurred for each constituent required to be analyzed.

   a. Quarterly analytical results and ground water monitoring reports shall be submitted directly to the OLR from the contract laboratory. Ground water monitoring quarterly reports are due to the OLR on or before March 31, June 30, September 30, and December 31.

b. Semi-annual analytical results and ground water monitoring reports shall be submitted directly to the OLR on or before June 30 and December 31 each year thereafter.

10. The permittee shall initiate Detection Monitoring at this facility, for all existing ground water monitoring wells. Semi-annual Detection Monitoring for Appendix 1 parameters shall be required for all existing ground water monitoring wells located at this facility, as defined in Regulation 22.1204.

    a. The Director, in accordance with APC&EC Regulation No. 22.1204(a)(1) may delete any Appendix 1 sampling parameter from this detection monitoring program if it can be demonstrated those constituents cannot reasonably be expected to be found in or derived from the wastes disposed in this landfill.

11. The permittee, if after initiating a Detection Monitoring Program at this facility, should a statistically significant increase over established background concentrations be detected for one or more of the monitored constituents, the permittee must undertake the following actions:

    a. Must, within 14 days of this finding, place a notice in the facility Operating Record indicating which constituents have shown statistically significant increases (SSI) from background levels, and notify the Director this notice was placed in the operating record; and,

    b. Establish an Assessment Monitoring Program meeting the requirements of Regulation22.1205 within 90 days except as provided for in Regulation 22.1204(c)(3); or

    c. The permittee must establish an alternate source other than the landfill has caused the contamination or the SSI was the result of a sampling error, laboratory error, statistical error or a natural variation in ground water quality at that location; A report documenting this demonstration must be certified by a qualified ground water scientist or be approved by the director and be placed in the facilities operating record.

    d. If, after 90 days, the permittee has not provided the Director a successful alternate source demonstration for this facility, as provided for in APC&EC Regulation No. 22.1204(c) (3), the permittee must initiate an Assessment Monitoring Program.

12. While a facility is in an Assessment Monitoring Program, if one or more of the Appendix 1constituents are detected at a statistically significant level exceeding the established Ground Water Protection Standards (GWPS) defined under Regulation 22.1205 (h) or (i), the permittee must initiate an Assessment of Corrective Measures for the facility, in accordance with Regulation 22.1206.Based upon the results of an Assessment of Corrective Measures, the permittee must proceed with Selection of a Remedy in accordance with Regulation 22.1207 and then proceed with Implementation of a Corrective Action Program for the facility in accordance with Regulation 22.1208.

# GENERAL CONDITIONS FOR CLASS 1 FACLILTIES

1. This permit is issued in reliance upon the statements and representations made in the application, operating narrative, plans, specifications, correspondence, and other related documents. The Division bears no responsibility for the adequacy or proper functioning of the disposal facility. Nothing contained herein shall be construed as releasing the permittee from any liability from damage to persons or property due to the installation, maintenance, or operation of the disposal facility or any act of the permittee, or the Permittee's employees or agents.

2. The disposal facility shall be constructed, operated and maintained in accordance with the final plans, specifications and operation narrative as approved by the Division and in compliance with applicable provisions of the Act, Regulation 22, and all other applicable rules and regulations.

3. At all times the disposal facility shall be maintained in good condition and operations shall be conducted by licensed, qualified on-site operators holding the appropriate license in accordance with Regulation Number 27, Licensing of Solid Waste Management Facilities and Illegal Dump Control Officers.

4. This permit may be revoked or modified whenever, in the opinion of the Division, the facility is no longer in compliance with the Act, Regulation 22, or other applicable rules and regulations. Except where expressly authorized by the Division, this permit shall not relieve the permittee, or the Permittee's employees or agents, from compliance with the provisions of the Act and Regulation 22.

5. The Division may issue modifications or amendments to this permit governing the design, operation, maintenance, closure or post-closure of the facility during the term of this permit. Such modifications or amendments shall be attached to this permit and shall be fully maintained and enforceable as a condition or conditions of this permit. The Bioreactor components of this permit modification that are outside the scope of Regulation 22 will be amended to this Permit at such time the EPA passes the Research, Development and Demonstration rules.

6. The Division has received an initial permit fee from the permittee. Annual permit fees due thereafter shall be assessed in accordance with Regulation Number 9, Regulation for the Fee System for Environmental Permits as revised by Emergency Order effective November 1, 2002. The facility shall also be responsible for quarterly payments of other landfill disposal fees as required under Regulation 11, Regulations for Solid Waste Disposal Fees; Landfill Post-Closure Trust Fees; Illegal Dumps Program; and Recycling Grants Program as revised, effective January 18, 2001. Failure to pay annual fees or quarterly payments when due may result in revocation of this permit.)

7. The permittee shall maintain an Operating Record at the location indicated in the permit application, or at an alternate location approved in writing by the Division.

    a. At a minimum, the following documents and materials shall be retained in the facility operating record for review by authorized representatives of the Division:

i.) The approved facility operating plan, approved permit plans and specifications, CQA reports, site inspection reports, operator licenses, this disposal permit and written authorizations issued by the Division that provide modifications to the facility or its operations, all environmental monitoring or test results, and other pertinent records, certifications and correspondence as required by APC&EC Regulation 22 or other permit conditions herein; and

ii.) All construction test results, certifications, acceptances, construction reports, photographs, layout drawings, record (as-constructed) drawings, shop drawings, construction drawings, and other documentation required by the specifications, and CQA/QC plans, reports and documents; and

iii.) Other documents that pertain to the operation and maintenance closure and/or post-closure of the facility, or as directed by the DEQ.

b. The permittee shall forward a copy of information from the Operating Record when requested by the Division.

8. Transactions that affect the ownership of the facility must be fully disclosed to the Division.

a. For purposes of evaluating whether a change in ownership occurs, ownership or control may result from a change in the equity of the permittee of five percent (5%) or more.

b. If applicable, the permittee shall submit to the Division annual and quarterly reports required by the Securities and Exchange Commission (SEC) that provide information regarding legal proceedings in which the permittee has been involved in order to determine whether any change in ownership or control of the operation of this landfill has occurred.

c. A permit transfer will not be required when a change in ownership or control of the facility is among the persons and/or entities previously disclosed to the Division in Section E of the Disclosure Statement or similar disclosure.

9. The permittee shall furnish the Division annual engineering inspection reports in accordance with APC&EC Regulation No. 22.423. The annual report for Class 1 facilities is due on March 31 of each year and shall cover the preceding period beginning January 1 and ending December 31.

10. A survey control system shall be established and maintained at the landfill site that complies with APC&EC Regulation No. 22.426.

11. The landfill working face shall be confined to the smallest practicable area.

12. The permittee shall not engage in or allow salvage operations at the facility except with written authorization from the Division or as may be provided in the section titled Site Specific Conditions of this permit. The Division may review and approve requests for future salvage of disposed materials for recycling purposes on a case-by-case basis.

13. Disposal of bulk liquid waste in the landfill require submittal of Liquid Waste Management Plan. Reintroduction of liquids other than leachate will be reviewed and permitted under the EPA Research, Development and Demonstration permit rules.

14. Measures to control and prevent storm water run-on from running through or into the active disposal area shall be constructed and maintained. Grading, dikes, diversion ditches, silt fencing, silt, traps, and other best management practices (BMP) for storm water control shall be provided as necessary to control/prevent off-site sediment accumulation from landfill related operations.

15. A Storm Water Pollution Prevention Plan (SWPPP), which outlines erosion and sediment control measures has been developed, and is located in the Permit Modification Application, Volume 3, Section 36, submitted on June 28, 2002 ADEQ Document Identifier 17751 A copy of the SWPPP shall be maintained on-site for reference by operating staff.

16. The permittee shall comply with the air criteria requirements of APC&EC Regulation No. 22.416. Those requirements include meeting the State Implementation Plan (SIP) pursuant to Section 110 of the Clean Air Act; prohibiting open burning of solid waste, unless authorized by the Division; and establishing fire safety procedures.

17. Litter control fences shall be provided in the active fill area for the control of blowing litter. Other litter control measures shall be implemented, if necessary, to confine litter to the smallest practicable extent and prevent litter from leaving the site.

18. The permittee shall prepare and implement a Hazard Waste Exclusion Plan for hazardous waste screening and detection program at the facility in accordance with the approved operating plan and APC&EC Regulation No. 22.412. The program shall include procedures for evaluation of any questionable wastes prior to disposal to determine whether the waste complies with the APC&EC Regulation 22 requirements for disposal in the facility.

19. The permittee must cover disposed waste 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. No portion of the waste is to be left exposed at the end of the operating day. Alternative materials for daily cover have been authorized in writing by the Division. Any other alternative daily cover that is proposed by the permittee must comply with Divisoin guidelines and include specific written operating procedures that will be implemented to control disease vectors, fires, odors, blowing litter, and scavenging.

20. The final grades and elevations shown on the plans shall not be exceeded at any time or in anticipation of settlement and consolidation of the waste mass.

    a. Timely initiation and completion of closure of landfill cells or units shall be made in accordance with APC&EC Regulation No. 22.1301(f) and (g).

    b. Proper construction of the final cover system shall be observed and certified in writing to the Division by a Registered Professional Engineer in a Construction Certification Report in accordance with the approved CQA Plan whenever a cell, area or phase of the landfill is closed-out.

c. The Certification Report shall include CQA/QC test results as indicated in the approved CQA Plan; drawings indicating the location, designation and extent of closed area(s); and test locations.

21. Any statements in the operational narrative, specifications, and/or engineering plans that conflict with APC&EC Regulation 22, permit conditions herein, or other applicable laws and regulations shall not be considered authorized by the Division. Activities associated with the bioreactor operations will be reviewed and permitted under the EPA Research, Development and Demonstration permit rules.

22. This permit authorizes one (1) active disposal area at the facility per Section 22.411 (c) of Regulation 22.Multiple working faces shall not be utilized at the facility unless the permittee can provide adequate justification for more than one working face and specific authorization for such is granted in writing by the Division. It is not anticipated that such authorization will be granted except on a temporary basis for highly unusual or emergency situations.

23. The Division, 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 APC&EC Regulation Number 22 for the purposes of, including but not limited to taking samples, reviewing the operating record, inspecting the facility, and perform other enforcement or engineering action without interference or delay from the permittee.

24. The Division's decision to issue this permit is final for purposes of appeal as of the date indicated in the Certificate of Service below. If any provision of these conditions or the application of these conditions thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of these conditions that can be given effect without the invalid provision or application. Therefore, to this end, the provisions of these conditions are declared to be severable.

**APPROVED BY:** **Division of Environmental Quality**
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317



Jarrod Zweifel, P.G.
Associate Director, Office of Land Resources

April 29, 2022
Date

CERTIFICATE OF SERVICE

I, Kacy Murillo, hereby certify that, on or before this 29th day of April, 2022, a copy of this permit has been submitted by electronic transmission to Mr. Torrey Lougin, at the following email address previously provided to DEQ:

tlougin@fortsmithar.gov

**Permit Modification Application Summary and Rationale**
**for Fort Smith Class 1 Landfill; Sebastian County, AR**
**Permit 0267-S1-R1; AFIN 66-00226**
**January 2022**

## Permit Modification Application Summary

This summary form consists of information submitted during the permitting process. It represents basic information from the administrative record utilized in forming recommendations from the Office of Land Resources. The entire file for the solid waste permit application specified below should be reviewed for complete details on the facility.

| **Permit Modification Application Summary** | |
|---|---|
| Name of Applicant: | City of Fort Smith<br>5900 Commerce Road<br>Fort Smith, AR 71958 |
| Type of Facility: | Class 1 landfill |
| Engineering Firm: | Genesis Environmental Consulting, Inc. and Mickle Wagner and Coleman, Inc. (06/28/2002)<br><br>Terracon (11/22/2021) |
| Application Date: | Submitted on November 22, 2021. |
| Site Location | General: The site is located east of Highway 45 south on Commerce Road. East of Highway 45 – go South on Commerce Road in Fort Smith, Arkansas<br><br>Specific: Sections 12 & 13, Township 7 North, Range 32 West |
| Permit Area: | Total Property Area: 1012 ± acres<br>Permitted Landfill Area: 555 ± Acreage |
| Residences Within 2 Miles: | From recent aerial photography (2001) there are less than 50 houses. Most of these houses are located south and east of the landfill site. |
| Water Supplies Within 2 Miles: | Approximately 22 based upon Arkansas Geological Commission well log records. |
| Wetlands: | Less than 5 acres of wetlands located within the expansion area. The City of Fort Smith has within the design narrative details on Wetlands Mitigation Plan concurred of by USCOE |
| Geology: | The CFSL is located in the Arkansas River Valley Province and is bounded by the Ozark Plateau Province to the north and by the Ouachita Province to the south. The rocks of the River Valley have been broadly folded or broken by north or south dipping normal faults. Folds in the region consist of east-west trending anticlines and synclines. The CFSL is underlain by the Pensylvanian age McAlester Formation. The McAlester Formation is primarily shale with minor amounts of siltstone and sandstone. The shale is |

| Permit Modification Application Summary | |
|---|---|
| | dark gray, non-silty, fissle and approximately 700 to 950 feet thick beneath the CFSL site. Bedding is thin to thick, and regular to irregular or convolute. At the base of the McAlester shale is Lower Hartshorne Coal bed. The McAlester shale is conformably underlain by the Hartshorne Sandstone Formation. Above the McAlester Formation is the Savanna Formation. The Savanna Formation consists of mainly shale, minor siltstone and sandstone and has been partly or totally removed by erosion exposing the underlying McAlester Shale Formation in the vicinity of the CFSL. The lithology encountered across the site was 1 to 10 feet of clay at the surface, beneath the clay is a weathered shale horizon generally 5 to 10 feet thick. The weathered shale grades into hard, gray, massive, shale with some discontinuous sandstone beds. |
| Soils: | Descriptions of the various soil located on site are detailed in the Permit Modification Application, Volume 2, Section 25 ADEQ Document Identifier 17757. |
| Ground Water: | Ground water beneath the CFSL occurs as secondary porosity in bedding planes and fractures within the McAlester shale. Ground water was not encountered in many of the borings drilled for the hydrogeologic investigation of this site. When present ground water was generally encountered in localized fractures in the hard shale formations. When sandstone is present, primarily south of the ridge which traverses the site, it is often encountered at the shale-sandstone contact. Perched water was occasionally encountered in the upper clay/hard shale contact. The ground water is confined, with some levels rising above ground level. The topographic ridge that trends northeast across the site represents a ground water divide within the uppermost water bearing zone. Ground water flow at the site generally follows the slope of the ground surface with the ridge separating the two ground water flow components within each if the proposed expansion areas north and south. |
| Surface Drainage Sequence: | Surface drainage in the vicinity of the CFSL is controlled by a topographic ridge that trends to the northeast. The area west of the ridge is drained by Massard Creek, which flows to the northeast into the Arkansas River. The area east of the ridge is drained by Little Vache Grasse Creek which also flows into the Arkansas river. |
| Waste Streams: | All eligible Class 1 and 4 wastes. |
| Capacity & Active Life (consultant estimation): | Total Capacity = 72,607,000 cubic yards in place volume<br>Active life: 42.5 years |
| Disposal Rate | 821,856 Cubic yards / year |
| Bottom Liner | Each of the waste cells to be constructed with a 60-mil HPDE flexible membrane liner, leachate recovery system and 24-inch compacted clay liner |

| Permit Modification Application Summary | |
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| System: | with a maximum permeability of $1x10^{-7}$ cm/sec. GCL will be authorized upon submittal and approval of Alternative Liner Demonstration. |
| Final Cover: | The final Cover System is detailed in the closure plan submitted on March 13, 2002, Document Identifier 16215 and the associated Performance Standard for Alternative Final Cover Design, submitted on October 24, 2002, Document Identifier Number 18561. |

## Permit Modification Summary and Rationale

The following information was considered during the preparation of a draft permit for the proposed facility:

- Permit Pre-Application dated October 3, 2000.
- Permit Application dated May 30, 2002. The application was later completed through documents furnished on April 4,2003
- Correspondence from the Permittee; The Arkansas Solid Waste Management Code, as Amended (Regulation Number 22); and all other applicable rules and regulations of the Division of Environmental Quality.

| **Condition No.** | **Site Specific Permit Conditions** |
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| 1 | Refers to the landfill disposal area for the Class 1 facility as shown in the approved application and operational narrative plans. |
| 2 | Specifies the initial amount of financial assurance. (Regulations 22.1402 and22.1403). The City of Fort Smith has utilized 32 percent of the 106 acres presently under permit. Closure cost in the permit will be based upon 8 percent of the modified acres being utilized. The cost estimates are detailed in the Permit Modification Application Volume 3 Section 40 submitted on June 28, 2002, Document Identifier 17751. |
| 3 | Details the waste streams authorized for disposal at the facility as submitted in the approved application. Additional waste streams may be authorized for disposal on a case-by-case basis when requested by the permittee. (Regulation 22.701-708) The City of Fort Smith will close the Class 4 facility on site and encompass this area into the modified Class 1. |
| 4 | Concerns the construction of new waste cells, which shall be constructed in the sequence, indicated in the approved plans |
| 5 | The bottom liner system for any newly constructed waste cell shall consist of twenty-four (24) inches of compacted clay exhibiting a maximum hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second (cm/s) with a 60 mil HPDE liner. Proper construction of the bottom clay liner of each waste cell shall be observed and certified to the Division in writing by a Registered Professional Engineer in a construction certification report in accordance with the approved CQA Plan. (Regulation 22.428(i) (c)) Should the permittee use any liner system other than a “composite liner” system an *Alternative Liner Demonstration* shall be submitted to and approved by the Division prior to initiation of construction of the alternative liner system. |

| Condition No. | Site Specific Permit Conditions |
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| 6 | The final cover system is detailed in the Closure Plan Permit Modification Application Volume 3 Section 38 submitted on June 28, 2002, Document Identifier 17751 |
| 7 | Details the leachate collection removal and leachate storage shall be monitored and operated to maintain free flowing conditions. The date, quantity, results of any testing done, and the receiving wastewater treatment facility and NPDES number shall be monitored and recorded each time leachate is removed from the site. (Regulation 22.421(g) |
| 8 | States the post closure for this facility is 30 years starting on the date the facility is accepted into post-closure. (Regulation 22.1302(c)(1)) The Permittee will be required to submit stabilization parameters for the facility to determine the length of closure activity. |
| 9. | The Permittee has requested to alleviate citizen's concern that the permit be conditioned to restrict access along Steep Hill Road. |
| 10. | Increase in capacity by 0.9% from 72,607,000 cu yds to 73,260,463 cu yds. |

| Condition No. | Ground Water Monitoring Permit Conditions |
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| 1. | Requires the permittee to utilize and maintain a ground water monitoring system to adequately monitor potential impacts on local ground water supplies from facility operations. The monitoring system must have a sufficient number of wells or sampling points that will yield water samples representative of the water quality around the landfill. References the proposed well identification numbers and well locations for this facility. (Regulation 22.1202 (a)) |
| 2. | Requires the permittee to certify the new and/or existing ground water monitoring system at this facility. Requires the ground water monitoring system to be installed according to appropriate ASTM standards and the monitoring system be certified as adequate and properly constructed given the geologic conditions of the site by a Registered Professional Geologist. (Regulation 22.1202 (a) (2) and (e) and ASTM D5092) |
| 3. | Requires the permittee to establish background water quality parameter concentrations in hydraulically up gradient wells or background wells for each parameter found in Appendix 1. Allows the use of an alternate list of Appendix 1 parameters to establish background water quality conditions at the site. (Regulation 22.1203(e). |

| Condition No. | Ground Water Monitoring Permit Conditions |
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| 4. | Requires the permittee to place down gradient monitor wells at the relative point of compliance from the waste mass (150 meters). (Regulation 22.1202(a)(2)). |
| 5. | Requires the permittee submit to ADEQ for review and approval a Ground Water Sampling and Analysis Plan (GWSAP) within 30 days of the effective date of this permit. The GWSAP must include a consistent sampling and analysis procedures to provide an accurate representation of the ground water quality at this facility. (Regulation 22.1203(a)). The GWSAP for this facility was submitted in the permit modification application. The GWSAP was reviewed and approved by the SWMD prior to permit issuance. |
| 6. | Discusses the analytical procedures required for appropriate sample analysis and the subsequent reporting requirements. Method Detection Limits (MDL) for each parameter must be reported. Parameter concentrations above the method detection limit and below the Practical Quantitation Limit (PQL) must be reported. ADEQ staff may require changes to the analytical parameters and/or sampling frequency if warranted by circumstances. This requirement is standard laboratory protocol and ensures the accuracy of the monitoring data being reported. (Regulation 22.1204(d), EPA Report SW-846). |
| 7. | Requires the permittee to have qualified personnel trained in the proper sampling and measuring techniques take water samples. Water level measurements must be taken prior to purging and sampling the monitoring wells, and uses the resulting data to determine the ground water flow direction in and around the facility. The sample analysis shall be performed by a lab certified by ADEQ (Regulation 22.1203). |
| 8. | Requires the permittee to insure the ground water monitoring wells are capable of providing samples that are within the maximum allowable ranges for water clarity or turbidity. If turbidity-free samples from a well cannot be obtained, the permittee may need to redevelop the monitoring well, replace the well or provide justification the turbidity ranges shown are representative of ambient water quality in the formation (Regulation 22.1103(a)). |
| 9. | Requires the permittee to submit ground water monitoring reports to ADEQ on specific dates. |
| 10. | Requires the Permittee to initiate newly installed wells by collecting a minimum of four independent samples from each well during the semi-annual sampling event. These samples shall be analyzed for Appendix 1 constituents. Thereafter, the Permittee shall sample and analyze all monitor wells at the facility semi-annually. (Regulation 22.1204(a)(2) and (b)). The permittee will collect (8) eight background samples from |

| Condition No. | Ground Water Monitoring Permit Conditions |
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| | each newly installed well. These samples will be collected semi-annually by the permittee. |
| 11. | Requires the permittee to initiate a Detection Monitoring program for the facility. This monitoring program requires semi-annual samples be taken and analyzed for Appendix 1 parameters. (Regulation 22.1204) |
| 12. | Requires the permittee to submit for review and approval a statistical evaluation package to determine statistically significant increases have occurred during the Detection Monitoring Program, over established back ground water quality standards (Regulation 22.1203(g)). |
| 13. | Requires the permittee if necessary, to establish an Assessment Monitoring Program; determine if an alternate source for the contamination exists; and outlines the procedures for initiating an Assessment Monitoring Program at the facility, if warranted (Regulation 22.1204 (c)(3)) and22.1205. |
| 14. | Requires a facility in Assessment Monitoring to determine if an SSI has occurred at the facility above established Ground Water Protection Standards. If an SSI has occurred the permittee must initiate an Assessment of Corrective Measures at this facility. The permittee must then provide a Selection of Remedy and proceed with the Implementation of a Corrective Action Program for this facility. This condition allows ADEQ to address potential water quality impacts on human health and the environment in a timely manner. (Regulation 22.1205 (h) or (i); Regulation 22.1206; Regulation 22.1207 and 22.1208). |

| Condition No. | General Conditions for Class 1 Facilities |
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| 1. | States the Division has no responsibility for the proper functioning of the disposal facility and the permittee is not exempt from liability to third parties per Regulation 8. |
| 2. | Concerns the requirements for construction and operation of the disposal facility in accordance with the approved plans/specifications/operation narrative are in accordance with Sections 22.308, 22.411, and 22.422 of Regulation 22. |
| 3. | Concerns requirements to maintain the disposal facility in good operating condition under licensed, qualified, on-site landfill operators is in accordance with Section 22.411 of Regulation 22 and with Regulation 27. |

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| 4. | Concerns the right of the Division to revoke or modify the permit in the event the facility is no longer in compliance with the Arkansas Solid Waste Management Act, Regulation 22, or other applicable regulations are in accordance with Section 22.308 of Regulation 22. |
| 5. | Concerns issuance of modifications to the permit by the Division is in accordance with Sections 22.308 and 22.422 of Regulation 22. |
| 6. | Concerns payment of permit fees in accordance with Regulation 9. |
| 7. | Concerns requirements for maintenance of landfill related documents in an Operating Record are in accordance with Sections 22.421 and 22.423 of Regulation 22 |
| 8. | 8Concerns permit transfer and disclosure is in accordance with Act 454 of 1991 |
| 9. | Concerns requirements for submittal of an annual engineering inspection report are in accordance with Section 22.423 of Regulation 22. |
| 10. | Outlines the requirements for implementation and maintenance of a survey control system at the landfill site for horizontal and vertical control of landfill construction/operation is in accordance with Section 22.426 of Regulation 22. |
| 11. | Outlines requirements for disposal in a single working area of the smallest practicable extent are in accordance with Section 22.411 of Regulation 22 |
| 12. | 12Regards salvage operations are not allowed in accordance with Section 22.411 of Regulation 22. |
| 13. | Concerns the prohibition of the disposal of bulk liquid waste in the landfill is in accordance with Section 22.420 of Regulation 22. |
| 14. & 15. | Concerns measures to control and prevent stormwater run through or into the active face and requirements for appropriate NPDES permit(s) and a Storm Water Pollution Prevention Plan (SWPPP) is in accordance with Sections 22.418, 22.419 and 22.427 of Regulation 22, and the Clean Water Act. |
| 16. | Concerns requirements for compliance with applicable air criteria is in accordance with Section 22.416 of Regulation 22 and the Clean Air Act. |
| 17. | Concerns with litter control fences and other control measures for blowing litter. Regulation 22.411 |
| 18. | Concerns requirements for implementation of a hazardous waste screening and detection program at the facility is in accordance with Section 22.412 of Regulation 22. |
| 19. | Concerns the application of six inches of soil at the end of each operating day or at more frequent intervals if necessary. Regulation 22.413 and the use alternative daily cover. |

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| 20. | Concerns requirements to fill within the final grades and elevations indicated on the approved plans, timely initiation and completion of closure, and proper CQA monitoring and certification are in accordance with Sections 22.308, 22.411, 22.428, and 22.1301 of Regulation 22 |
| 21. | Concerns the requirements for the permittee to comply with Regulation 22 or permit conditions in the event of a conflict between them and representations in the permit application documents is in accordance with Section 22.308 of Regulation 22. |
| 22. | Concerns the permit authorizes only one (1) working face. Regulation 22.411 |
| 23. | Concerns the right of Division employees to enter the Permittee's property to inspect the facility at any time without interference or delay is in accordance with Section 22.1501 of Regulation 22. |
| 24. | Concerns providing notice for the purpose of appeal of the final permit in accordance with Section 22.306 of Regulation 22 and in accordance with Regulation 8. Provisions regarding severability are in accordance with Section 22.1601 of Regulation 22. |