

PERMIT



**FOR THE CONSTRUCTION AND OPERATION OF A
CLASS 1 SOLID WASTE DISPOSAL FACILITY**

ISSUED BY

**STATE OF ARKANSAS
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE MANAGEMENT DIVISION**



Class 1 Landfill

Permit Number	0249-S1-R2
AFIN	03-00051
Effective Date	August 10, 2006
Permit Owner & Address	Northwest Arkansas Regional Solid Waste Management District 1305 Rossi Road Mountain Home, AR 72653
Facility Site Name & Address	NABORS Landfill 1320 RLH Landfill Road Three Brothers, AR 72653
Location	Approximately 9 miles north of Mountain Home and 1 mile northeast of the Three Brothers Community in Baxter County Arkansas.
Permitted Landfill Disposal Area	56 Acres
Permitted Disposal Volume (Waste and Daily/Intermediate Cover)	2,788,002 Cubic Yards
Design Engineer/Consultant	Terracon Consultants, Inc.. 11400 West Baseline Road Little Rock, AR 72119

This permit authorizes the operation of the solid waste disposal facility as set forth in the permit application by the Northwest Arkansas Regional Solid Waste Management District, hereinafter called "owner or "permittee," and received by the Department of Environmental Quality on November 12, 1987.

This major permit modification was completed through a series of documents furnished by the applicant on January 19, 2006 (SWMD# 31896); May 31, 2006 (SWMD# 34484); June 6, 2006 (SWMD# 34683); and June 14, 2006 (SWMD# 34888). This permit modification is for a lateral expansion to the Nabors Class 1 Landfill. On the effective date, this permit supersedes all prior solid waste permits issued by the Department of Environmental Quality, hereinafter called "Department" for this Class 1 Permit. This permit is issued pursuant to the provisions of the Arkansas Solid Waste Management Act (Arkansas Code Annotated 8-6-201 et seq.) as amended, hereinafter called the "Act; Regulation Number 22, Arkansas Solid Waste Management Code, as adopted by the Arkansas Pollution Control and Ecology Commission, hereinafter called Regulation 22; all other applicable rules and regulations and the following terms and conditions:

PERMIT CONDITIONS

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 Department 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 Department 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 Department, the facility is no longer in compliance with the Act, Regulation 22, or other applicable rules and regulations. Except where expressly authorized by the Department, 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 Department 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.
6. The Department has received an initial permit fee from the permittee. Annual permit fees due thereafter shall be assessed in accordance with Regulation Number 9, Fee Regulation. 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 and Recycling Grants Program. Failure to pay annual fees or quarterly payments when due may result in revocation of this permit.
7. Transactions that affect the ownership of the facility must be fully disclosed to the Department.
 - 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 Department 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 Department in the submitted Disclosure Statement or similar disclosure.
8. 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 Regulation 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.

9. The permit will expire when the disposal area described in the final engineering plans for Area 1-1, Area 1-2 (Drawing 5 of 13, Document Id# 28209), and Area 1-3 (Drawing 8 of 22 Doc. ID # 34683) have been filled to design capacity and is closed out in accordance with the approved closure plans and provisions of Regulation. The final grades and elevations shown on the approved plans shall not be exceeded in anticipation of settlement and consolidation of the waste mass.
10. The approved permit plans for the facility are as follows:

Bottom Grading Plan – Zone 15 (Area 1-2)	Drawing 4 of 13 Doc. ID# 28209
Final Cover Grading Plan – Area 1-2	Drawing 5 of 13 Doc. ID# 28209
Stormwater Control Plan – Area 1-2	Drawing 5 of 13 Doc. ID# 28209
Liner and Final Cover System Details – Area 1-2	Drawing 11 of 13 Doc. ID# 28209 Drawing 11 of 13 Doc. ID# 28209
Bottom Liner System and Related Details - Zone 14 (Area 1-2)	Doc. ID Number 20978
Subgrade Grading Plan-Area 1-3	Drawing 5 of 22 Doc. ID# 34683
Grading Plan – Top of Compacted Clay Liner-Area 1-3	Drawing 6 of 22 Doc. ID# 34683
Final Grading Plan-Area 1-3	Drawing 8 of 22 Doc. ID # 34683
Stormwater Control Plan-Area 1-3	Drawing 10 of 22 Doc. ID # 34683
Passive Gas Control Plan-Area 1-3	Drawing 11 of 22 Doc. ID # 34683
Liner Details-Area 1-3	Drawing 16 of 22 Doc. ID # 34888
Leachate Collection System Details-Area 1-3	Drawing 19 of 22 Doc. ID # 34888 Drawing 20 of 22 Doc. ID # 34683 Drawing 21 of 22 Doc. ID # 34683
Final Cover System Details-Area 1-3	Drawing 22 of 22 Doc. ID # 34683
Stormwater Control Details-Area 1-3	Drawing 17 of 22 Doc. ID # 34888 Drawing 18 of 22 Doc. ID # 34888

11. The facility is permitted for 2,788,002 cubic yards of solid waste disposal including daily and intermediate cover material. Of the 2,788,002 cubic yards of solid waste disposal capacity, 1,608,776 is contained within the Area 1-1 and Area 1-2 disposal areas. 1,179,226 cubic yards of solid waste disposal capacity is contained within Area 1-3.

12. The following bottom liner system configuration is approved for Cells 1-6 of Area 1-3 as shown on Drawing 5 of 22, Document Identifier 34683. The bottom liner system (including the bottom sideslopes) has been listed from bottom to top.
- A 24-thick recompacted subgrade layer with hydraulic conductivity of less than 1×10^{-5} cm/s (bottom liner area not including bottom sideslopes)
 - A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s
 - A geosynthetic clay liner (bottom liner area not including bottom sideslopes)
 - A 60-mil thick high density polyethylene (HDPE) geomembrane
 - A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet
 - A 12-inch thick protective soil cover layer
13. The permittee shall implement the Hazardous Waste Exclusion Plan presented in Volume 2 of 4, Appendix F of the Permit Modification Application having Solid Waste Management Division Document Identifier 34683. In addition to the implementation of the approved Hazardous Waste Exclusion Plan, the facility shall fully meet all requirements of Reg.22.412 regarding the exclusion of all unauthorized waste streams.
14. The facility is authorized to utilize synthetic tarps for daily cover if the material selected is of sufficient weight and durability to control disease vectors, fires, odors, blowing litter, and scavenging. The facility may not use alternate daily cover for more than six consecutive days. Upon notification from the Department the authorization to utilize alternate daily cover may be withdrawn or revoked at any time the Department determines that the alternate daily cover is not effective in controlling disease vectors, fires, odors, blowing litter and scavenging. The facility must place soil intermediate cover in compliance with Reg.22.413.
15. The permittee shall implement the Landfill Gas Monitoring Plan presented in Volume 2 of 4, Appendix G of the Permit Modification Application having Solid Waste Management Division Document Identifier 31896. In addition to the implementation of the approved Landfill Gas Monitoring Plan, the facility shall fully meet all requirements of Reg.22.415 regarding the control of explosive gases. The facility shall monitor each of the eighteen (18) gas monitoring probes detailed in the approved Landfill Gas Monitoring Plan and within all structures at the facility on a quarterly basis. The results shall be submitted to the Department within 14 days of each monitoring event.
16. The permittee shall implement the requirements detailed in the Operating Plan and Narrative presented in Volume 2 of 4, Appendix E of the Permit Modification Application having Solid Waste Management Division Document Identifier 34683. In addition to the implementation of the approved Operating Plan and Narrative, the facility shall fully meet all operating requirements of Regulation 22 unless specifically address by a permit condition.
17. This permit authorizes one (1) active disposal area at the facility per Section 22.411 (c) of Regulation 22. A second working face may be approved in writing by the Department for the purpose of the disposal of wastes which may be impacted by non-routine activities.
18. Appropriate NPDES construction/storm water permit(s) shall be obtained for storm water discharges from the landfill site and borrow sites. A Storm Water Pollution Prevention Plan (SWPPP), which outlines erosion and sediment control measures, shall be prepared and implemented in accordance with applicable NPDES requirements. A copy of the SWPPP shall be maintained on-site for reference by operating staff.

19. The permittee shall implement the Construction Quality Assurance Plan presented in Appendix K of the Permit Modification Application having Solid Waste Management Division Document Identifier 31896. In addition to the implementation of the approved Construction Quality Assurance Plan, the facility shall fully meet all requirements of Reg.22.428. The facility shall be required to submit construction plans and specifications to the Department prior to each construction event at the facility.
20. The permittee shall implement the Closure and Post Closure Care Plan presented in Volume 2 of 4, Appendix M of the Permit Modification Application having Solid Waste Management Division Document Identifier 31896. In addition to the implementation of the approved Closure and Post Closure Care Plan, the facility shall fully meet all requirements of Reg.22.1301 and Reg.22.1302. The post closure maintenance period for this facility shall be a minimum of 30 (thirty) years starting on the date the Department accept closure of the facility. The length of the post closure period may be decreased or increased by the Director in accordance with Regulation 22.1302(c)(4).
21. The initial total amount of financial assurance is \$1,652,815. Of this amount, \$1,061,264 dollars will be required for closure costs and \$591,550 dollars will be required for the post-closure care costs. This amount shall be subject to annual adjustments and may be increased at the discretion of the Department 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 Regulation 22 or as otherwise approved by the Department.
 - b. This permit shall not become effective until all financial assurance is satisfactorily filed with the Department.
 - c. A portion or all of the financial assurance may be held by the Department beyond the time of cessation of disposal operations at the site to ensure satisfactory closure and post closure care in accordance with Regulation 22.
22. The permittee will install an additional 60-mil High Density Polyethylene Geomembrane under the entire leachate collection sump and the entire leachate collection trench for each cell (Cells 1-6, Area 1-3). The second geomembrane shall be installed and tested to the same standards as the primary liner material.
23. A groundwater monitoring system shall be established and maintained at the facility that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of groundwater quality. The monitoring system shall be installed, operated and maintained in accordance with the approved design specifications submitted in the permit modification application, Regulation 22 and/or the Permit Conditions referenced herein throughout the active life of the facility and the post-closure care period.
24. All groundwater monitoring referenced in this Permit and the Groundwater Sampling and Analysis Plan (GWSAP) for this facility shall follow the provisions detailed within Regulation 22 except for the following variances:
 - a. Quarterly sampling of ground water monitoring network as detailed in Permit Condition 26a;
 - b. Spring sampling schedule based on spring flow as detailed in Permit Condition 25b;
 - c. Procedures for replacing spring sampling location if viable water quality samples can not be collected as detailed in Permit Condition 25c;

- d. Procedures for replacing monitor well MW-1 when future cell construction activities in Area 1-3 dictate MW-1 be decommissioned as detailed in Permit Condition 25d;

25. Groundwater Monitoring System:

- a. The groundwater monitoring system for the Nabors Class 1 landfill will consist of twenty (20) wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, NAB-1, NAB-2, NAB-3, NAB-4, NAB-7, NAB-8, MW-509D, MW-577, MW-633D, MW-689D and wells CAO-1, CAO-2 and CAO-3.
- b. The groundwater monitoring system for the Nabors Class 1 landfill will include sampling and monitoring of nine (9) local springs around the active and inactive portions of the landfill site. Springs currently designated TSP-1, TSP-2, TSP-3, TSP-4, SP-4, SP-5, SP-7, Spring A and Spring B shall be sampled at least four (4) times per year with at least two (2) months between sampling events. Given these springs are considered intermittent, the sampling of the springs will need to be coordinated based on spring flow rather than the quarterly ground water sampling dates.
- c. If any of the designated spring sampling points go permanently dry for the life of the facility and/or a spring can no longer yield viable water quality samples, the SWMD may, if necessary, require a spring sample(s) be collected at an alternate spring discharge site(s). The permittee may request those springs, which no longer can be sampled, be removed from the landfill's ground water monitoring network. If appropriate alternative spring sampling sites are not available, the SWMD may require the permittee to install additional monitor wells as necessary to provide the appropriate monitoring network for the facility.
- d. Monitor well MW-1 is located along the western boundary of Area 1-3; future cell construction activities in Area 1-3 will require MW-1 to be removed; thirty (30) days prior to initiating well closure activities, the permittee shall submit to the SWMD for review and approval plans for decommissioning well MW-1 and proposals for relocating well MW-1 as near as practical to its current location.

26. The groundwater monitoring system will be monitored per Regulation 22 and the following:

- a. Quarterly Sampling: After collection of baseline pre-expansion groundwater quality in each of the twenty (20) monitor wells and nine (9) spring locations at the site, each of those wells and springs shall be sampled quarterly.
- b. Sampling Parameters: All monitoring wells and springs shall be sampled for the full suite of parameters as required by Regulation 22; (While in Assessment Monitoring and Corrective Action the AMC list plus Fe, Mn and TOC with annual Appendix 2 sampling; while in Detection Monitoring the Appendix 1 list plus Fe, Mn and TOC).

27. The statistical analysis of groundwater sampling results will follow Regulation 22 and the SWMD approved Groundwater Sampling and Analysis Plan for the facility. Below are items from Regulation 22 included for clarification:

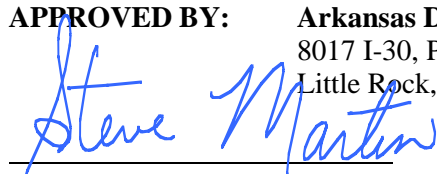
- a. Background Groundwater Quality: After collection of baseline pre-expansion groundwater quality in all new wells and springs, a background data set will be created for the whole site and approved by SWMD for use in statistical analysis. The background data set will be from wells confirmed to be unaffected by leakage from the unit (including landfill gas).

28. Any statements in the operational narrative, application documents, specifications, and/or engineering plans that conflict with Regulation 22, permit conditions herein, or other applicable laws and regulations shall not be considered authorized by the Department.

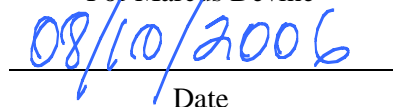
29. The Department's decision to issue this permit is final for purposes of appeal as of the date indicated in the Certificate of Service below. If any provision of these conditions or the application of these conditions thereof to any person or circumstance is held invalid, such invalidity shall not 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: **Arkansas Department of Environmental Quality**

8017 I-30, Post Office Box 8913
Little Rock, Arkansas 72219-8913



For Marcus Devine



Date

CERTIFICATE OF SERVICE

I, _____, hereby certify that a copy of this permit has been mailed by first-class mail to Mr. Bill Lord, 1305 Rossi Road, Mountain Home, AR 72653
, on or before this _____ day of _____, 2006

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Permit Modification Application Summary and Rationale
NWARSWMD NABORS Class 1 Landfill
Pending Permit No. 0249-S1-R2; AFIN 03-00051
June 2006

Permit 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 Solid Waste Management Division. The entire file for the solid waste permit application specified below should be reviewed for complete details on the proposed facility.

Permit Application Summary	
1. Name of Applicant:	Northwest Arkansas Regional Solid Waste Management District
2. Type of Facility:	Class 1 landfill
3. Engineering Firm:	Terracon Consultants
4. Application Date:	Original Application: November 12, 1987 Modification Application Submitted on January 19, 2006
5. Site Location	Approximately 9 miles north of Mountain Home and 1 mile northeast of the Three Brothers Community in Baxter County Arkansas.
6. Permit Area:	Total Property Area: 200 ± acres Permitted Waste Disposal Area: 56 acres
Residences Within 2 Miles:	208 (+/-) as determined from color infrared aerial photos taken in January 2002 (from Pre-application Northstar Engineering)
Water Supplies Within 2 Miles:	Five (5) wells were identified within a one-half mile radius of the site; the well construction reports indicate these wells were drilled as domestic water wells; the five wells range from 150 to 405 feet deep. It is unknown as to whether the wells identified are currently used as a drinking water source. Fourteen (14) additional water wells were also identified within close proximity to the site but, outside the designated one-half mile radius of investigation (Genesis/Terracon). Seventy-three (73) additional wells were identified within a two mile radius of the site. Based on a file search of well construction records from the AR Geological Commission (Northstar).
Wetlands:	No wetlands located within the expansion area.
Geology:	The Nabors landfill is located within the Salem Plateau of the Ozark Plateau Physiographic Region. The Ozark Plateau Physiographic region is characterized by sedimentary rocks (limestone, dolomite, shale and sandstone) deposited in horizontal positions with little deformation since their deposition. The general structure of these sedimentary rocks of the Ozark Plateau is that of an irregular flattened dome. The beds everywhere dip away from the St. Francis Mountains located in southeastern Missouri. At the Nabors landfill the property is covered by a thin layer of weathered clay and chert material from 2 to 16 feet thick formed from the residuum of the weathered dolomites. Directly below the clay is the Cotter Dolomite Formation. The Cotter consists of alternating beds of two types of dolomite but in places includes shale chert and sandstone. The two types of dolomite found in the Cotter are massive, medium grained crystalline gray rock and a fine grained white to buff rock referred to as "cotton rock". Overlying the Cotter

Permit Application Summary	
	Dolomite is the Powell Dolomite Formation which outcrops in Baxter County south of the site. The Cotter Dolomite Formation rests disconformably on the Jefferson City Dolomite Formation below. The Cotter is exposed over considerable area in the northern region of the state with the thickest outcrops occurring in northern Baxter County where sections over 500 feet have been measured.
Soils:	The 1983 USDA Baxter and Marion County Soil Survey indicates the soils beneath the site have been classified in the Doniphan-Gassville, Doniphan-Nixa and the Arkana-Moko Series. The Doniphan-Gassville Series consists of deep to moderately deep, moderately sloping to steep well drained, cherty soils that formed in the residuum of the dolomites. The Donaphin-Nixa Series consists of deep, gently to moderately sloping, well drained cherty soils. The Arkana-Moko Series consists of moderately deep and shallow, gentle sloping to steep, well drained cherty and stony soils formed in the residuum of the dolomite and limestone.
Ground Water:	Groundwater in this region occurs in secondary opening in the bedrock such as fractures, joints, bedding planes and solution cavities. Fracturing and solutioning of the bedrock tends to channel water to points of resurgence such as springs. The regional hydrogeologic unit in the area is known as the Ozark Aquifer. Ground water is available from nearly all the geologic units in the region however, water yielding capacity varies and many units do not yield significant amounts of water. Wells installed into the Cotter and Jefferson City Dolomite Formations in this region typical range in depth from 200 to 500 feet. Ground water yields from the formations typically range from 5 to 10 gallons per minute however some may yield up to 50 gpm. Depth to ground water at this site ranges from 20 to 100 feet or more. Ground water quality is generally good in the region. Shallow ground water is primarily calcium and magnesium bicarbonate type, very hard and contains excessive iron.
Surface Drainage Sequence:	The northern portion of Baxter County is drained by Bull Shoals Reservoir; the central portion of Baxter County is drained by the White River which flows in a southerly direction before heading east through the southern portion of Baxter County; The east side of Baxter County is drained by Norfolk Reservoir and the Norfolk River; locally the natural drainage system consists of many streams in a dendritic drainage pattern; springs are common in some areas and are generally located in ravines at certain elevations. Within the southern and eastern portions of the site springs are typically located at elevation below approximately 870 feet. Drainage across the site is primarily to the east and south where surface water is captured by Hutch Creek. Hutch Creek flows southeast into Pigeon Creek and thence into Lake Norfolk. Local streams in the vicinity of the site also include Pigeon, Possum Walk, and Howard Creeks.
Waste Streams:	All eligible Class 1 and 4 wastes,
Capacity (consultant estimation):	Total Capacity = 2,788,002 Cubic Yards
Disposal Rate	134,000 cubic yards./year

Permit Application Summary	
Projected Active Life after this modification	5.45 years
Bottom Liner System:	<p>The following bottom liner system configuration is approved for Cells 1-6 of Area 1-3 as shown on Drawing 5 of 22, Document Identifier 34683. The bottom liner system (including the bottom sideslopes) has been listed from bottom to top.</p> <ul style="list-style-type: none"> • A 24-thick recompacted subgrade layer with hydraulic conductivity of less than 1×10^{-5} cm/s (bottom liner area not including bottom sideslopes) • A 24-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s • A geosynththetic clay liner (bottom liner area not including bottom sideslopes) • A 60-mil thick high density polyethylene (HDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet • A 12-inch thick protective soil cover layer
Final Cover:	<p>The following final cover system configuration is approved for Cells 1-6, Area 1-3.</p> <ul style="list-style-type: none"> • A 18-inch thick compacted soil layer with hydraulic conductivity of less than 1×10^{-7} cm/s • A 40-mil thick textured linear low density polyethylene (LLDPE) geomembrane • A geocomposite drainage layer, consisting of high-density polyethylene geonet with geotextile filter sheet bonded to both sides of the geonet • 12-inch Protective Cover Soil Layer • 6-inch Vegetative Soil Layer

Permit Summary and Rationale

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

- Permit Pre-Application submitted on 4/6/2005.
- This major permit modification was completed through a series of documents furnished by the applicant on January 19, 2006 (SWMD# 31896); May 31, 2006 (SWMD# 34484); June 6, 2006 (SWMD# 34683); and June 14, 2006 (SWMD# 34888).
- Correspondence from the Permittee;

Condition No.	Permit Conditions
1	States the Department 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.
4	Concerns the right of the Department 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 Department 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 permit transfer and disclosure is in accordance with Act 454 of 1991.
8	Concerns the right of Department 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.
9	Concerns the expiration of the permit. The permit will expire when the facility is filled to permit capacity and closed out in accordance with Regulation 22 and the approved Closure Plan.
10	This permit condition details the approved landfill plans for the facility. Any changes to the plans listed below will require a modification to the facility permit.
11	This permit condition details the approved waste disposal capacity for the expanded landfill. The volumes are based on the calculations prepared and presented by the applicant.
12	This permit condition establishes the approved bottom configuration for Cells 1-6 of Area 1-3 of the facility. .
13	This permit condition identifies the approved Hazardous Waste Exclusion Plan for the facility as required by Regulation 22.412.
14	This permit authorizes the use of synthetic tarps as an alternate daily cover. This condition was approved based on the landfills previous success utilizing alternate cover material.
15	This permit condition details the approved Explosive Gas Monitoring System and Plan. As required by Regulation 22.415.

Condition No.	Permit Conditions
16	This permit condition establishes the approved Operating Plan and Narrative as required by Regulation 22.
17	This permit condition approves the use of a second working face only for the disposal of wastes affected by non-routine activities.
18	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.
19	This permit condition establishes the approved CQA Plan for the facility and requires review of construction documents prior to all construction events.
20	This permit establishes the approved Closure and Post Closure Care Plan for the facility as required by Regulation 22.1301-22.1302.
21	Specifies the initial amount of financial assurance. (Regulations 22.1402 and 22.1403).
22	This permit condition requires the double lining of the leachate sumps and leachate collection trenches.
23	A groundwater monitoring system shall be established and maintained at the NABORS 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 groundwater quality (per Regulation 22.1202). The monitoring system shall be installed, operated and maintained in accordance with the approved design specifications throughout the active life of the facility and throughout the post-closure care period (per Regulation 22.1201(d) and Regulation 22.1302(b)).
24	All groundwater monitoring at this site as described in this Permit, the Groundwater Sampling and Analysis Plan (GWSAP) will follow the <u>default</u> provisions within Regulation 22 except for the two variances listed. This condition is to clarify that the default provisions of Regulation 22 were intended to be followed except for the variances listed. Due to the length and complexity of the plans, there may be items that differ from Regulation 22 standard provisions – these differences are unintentional and the standard provisions of Regulation 22 should be followed.
25	List of the 20 monitor wells to be utilized in the groundwater monitoring system at Nabors Class 1 landfill site (Regulation 22.1202(a)). List of the nine (9) area springs in and around the landfill site which are to be sampled quarterly (Regulation 22.1202 (d)); Provides guidance for continued monitoring if a spring sampling point goes dry during the active life of the facility Including post-closure care; Regulation 22.1202. Provides guidance for replacing and relocating monitor well MW-1 at such time it will need to be replaced due to require new cell construction activities in Area 1-3; Regulation 22.1202.
26	Requires Quarterly Sampling of all monitor wells and springs after baseline water quality has been established; Regulation 22.1204. Requires all monitor wells and springs to be sampled for full suite of parameters required by Regulation 22.1204, 22.1205 and/or 22.1206.
27	Requires statistical analysis be performed in accordance with the requirements of Regulation 22.1203. Requires creation of a baseline groundwater quality data set for all wells and springs, to be used in statistical analysis. The baseline data set will be from wells confirmed to be unaffected by leakage (including landfill gas) from the unit. This requirement is from Regulation 22.1202(a)(1) and Regulation 22.1203(e).

Condition No.	Permit Conditions
28	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.
29	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.

This document was prepared by Seneca Jacobs, Esq., P.E. Engineer and Jerry Delavan, P.G. Geologist and Solid Waste Division Staff.

ADEQ

ARKANSAS
Department of Environmental Quality

May 10, 2010

NABORS Landfill
Attn: Mayor David L. Osmon
720 South Hickory
Mountain Home, AR 72653

**RE: Approval for Minor Permit Modification and Transmittal of Permit Addendum
NABORS Class 1 Landfill
Permit Number: 0249-S1-R2 AFIN: 03-00051
Document Number: 56146 Cross Reference Numbers: 55971, 56139 and
57594**

Dear Mayor Osmon:

ADEQ Solid Waste Management Division staff has received and reviewed a minor permit modification application associated with the revised bottom grading plans, revised leachate collection system and alternate liner demonstration. The minor modification is for the purpose of improving leachate management, creating two sub cells, Cells 3A and 3B, and to avoid blasting. The SWMD hereby approves the minor permit modification and transmits the attached permit addendum.

This authorization is given in reliance upon the statements and representations made to the Department, and the Department has no responsibility for ultimate proper functioning of the disposal facility. The Department also reserves the right to request additional information if deemed necessary. This approval shall not remove any liability nor hold the NABORS Class 1 Landfill harmless in the event of any adverse environmental or public health conditions resulting from this authorization. The NABORS Class 1 Landfill shall be solely and fully responsible for implementing any corrective action necessary to remediate any adverse condition at the site based on this authorization.

Please call me at 682-0601 should you have any questions regarding the above information.

Sincerely,



Karen Bassett
Acting Chief

cc: Scott McWilliams, Enforcement Coordinator SWMD
Gary Meador, District Field Inspector SWMD
Jason Kincade, Operations Manager NABORS
Shawki Al-Madhoun, Northstar Engineering Consultants, Inc.



Addendum to Permit

STATE OF ARKANSAS
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE MANAGEMENT DIVISION



Landfill Name	AFIN:	03-00051
NABORS Class 1 Landfill	Permit No:	0249-S1-R2
Date	Addendum to Permit	
August 11, 2009 Doc. # 55971	Permit Modification Application Forms	
September 4, 2009 Doc. # 56139 May 4, 2010 Doc. # 57594	<p>This minor permit modification is for the purpose of improving leachate management, creating two sub cells, Cells 3A and 3B, and to avoid blasting.</p> <p>Detail of alternate liner approved from top to bottom for Cells 3A and 3B:</p> <ul style="list-style-type: none">• One foot protective layer• 0.25 inches geocomposite drainage layer consisting of double-sided geonet as specified in the permit application and HELP Model calculations.• 60 mil HDPE textured liner• 48 inches compacted clay with maximum 1×10^{-7} cm/sec permeability <p>Approved plans/drawings:</p> <p>Bottom Grading Plan (Drawing 4, Document #56139)</p> <p>Cross Sections 3A and 3B (Drawings 5 and 7, Document #56139)</p> <p>Cell 3B and East Ditch Profile (Drawing 6, Document #56139)</p> <p>Liner Details Sheet (Drawing 9, Document #56139)</p> <p>Leachate Collection System Detail (Drawing 9, Document #56139)</p> <p>Area 1-3 Typical Liner Connection Detail (Document # 57594)</p>	
Amended Permit Conditions		
12.a.	<p>The bottom grading plan options for Cells 3A and 3B shall be constructed in accordance with Drawing 4 (Document ID # 56139). The permitted plan options for the facility are hereby modified to include Drawings 4, 5, 6, 7 and 9 (Document ID # 56139).</p> <p>Note: This condition is imposed in addition to the current permit condition 12 located in Document Identification Number 36066, August 10, 2006.</p>	
12.b.	<p>The change allowed by this modification includes the option to remove the required geosynthetic clay layer (GCL) and add an additional requirement to construct the 48" clay layer with 1×10^{-7} cm/sec maximum hydraulic conductivity over the full extent of all areas previously specified as lined with the GCL option. The 48" compacted clay layer for remaining cells bottom liner shall be placed in compacted lifts and shall otherwise follow all material specifications and CQA requirements which are currently approved. These approved specifications and requirements can be found in the Solid Waste Management Document having document identifier number 31896.</p>	

	Note: This condition is imposed in addition to the current permit condition 12 located in Document Identification Number 36066, August 10, 2006.
19.a.	<p>Before submittal of CQA certification of any remaining cell construction, NABORS shall submit updated closure and post-closure cost estimates for the site in accordance with the approved closure plan and provide adequate updated financial assurance in accordance with the approved closure and post closure plans using an acceptable mechanism allowed by Chapter 14 of Regulations 22.</p> <p>Note: This condition is imposed in addition to the current permit condition 19 located in Document Identification Number 36066, August 10, 2006.</p>

APPROVED BY: Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317.

Karen Barnett
For Teresa Marks, Director

5/10/10
Date

CERTIFICATE OF SERVICE

I hereby certify that a copy of the aforementioned permit has been mailed by first-class mail to Mayor David Osmon, 720 South Hickory, Mountain Home, AR 72653.

Certified by *Mona Pachman* on or before this 13th day
of May, 2010.



ARKANSAS
Department of Environmental Quality

April 15, 2011

NABORS Landfill
Attn: Mr. Jason Kincade
1305 Rossi Road
Mountain Home, AR 72653

**RE: Approval for Minor Permit Modification and Transmittal of Permit Addendum
NABORS Class 1 Landfill
Permit Number: 0249-S1-R2 AFIN: 03-00051
Document Number: 59730 Cross Reference Numbers: 59401 and 59707**

Dear Mr. Kincade:

ADEQ Solid Waste Management Division staff has received and reviewed a minor permit modification application associated with the addition of a leachate collection sump, leachate extraction riser, leachate clean-out riser and leachate extraction pump for Cell 3A. The modification also includes the installation of two chimney drains in the protective soil cover. The minor modification is for the purpose of improving leachate management. The SWMD hereby approves the minor permit modification and transmits the attached permit addendum.

This authorization is given in reliance upon the statements and representations made to the Department, and the Department has no responsibility for ultimate proper functioning of the disposal facility. The Department also reserves the right to request additional information if deemed necessary. This approval shall not remove any liability nor hold the NABORS Class 1 Landfill harmless in the event of any adverse environmental or public health conditions resulting from this authorization. The NABORS Class 1 Landfill shall be solely and fully responsible for implementing any corrective action necessary to remediate any adverse condition at the site based on this authorization.

Please call me at 682-0601 should you have any questions regarding the above information.

Sincerely,



Roger Lawrence, Chief SWMD

cc: Karen Bassett, Chief Deputy Director ADEQ
David Osmon, City of Mountain Home Mayor
Gary Meador, District Field Inspector SWMD
Mark Russell, Aquaterra



ADDENDUM TO PERMIT

ISSUED BY

STATE OF ARKANSAS

DEPARTMENT OF ENVIRONMENTAL QUALITY

SOLID WASTE MANAGEMENT DIVISION

Landfill Name		AFIN:	03-00051
NABORS Class 1 Landfill		Permit No:	0249-S1-R2
Application reference (Date/doc ID)	Description of Addendum to Permit		
March 9, 2011 Document # 59401	Permit Modification Application Forms		
March 9, 2011 Document # 59401	This minor permit modification is for the addition of a leachate collection sump, leachate extraction riser, leachate clean-out riser and leachate extraction pump for Cell 3A. The modification also includes the installation of two chimney drains in the protective soil cover to improve leachate collection performance.		
April 12, 2011 Document # 59707	The protective soil layer for the chimney drains shall consist of noncarbonated aggregate as specified in the approved ADEQ document #59707. Approved drawings include: Drawing 3 of 6 Clay Liner Grading Plan Document #59707 Drawing 4 of 6 Drainage Flow Paths Document #59707 Drawing 5 of 6 Construction Details Document #59707 Drawing 6 of 6 Construction Details Document #59707		

APPROVED BY: Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317.


For Teresa Marks, Director

4/15/2011

Date

CERTIFICATE OF SERVICE

I hereby certify that a copy of the aforementioned permit has been mailed by first-class mail to Mr. Jason Kincade, 1305 Rossi Road, Mountain Home, AR 72653.

Certified by Barbara J. Mathews on or before this 15th day
of April, 2011.



ARKANSAS
Department of Environmental Quality

February 23, 2012

NABORS Landfill
Attn: Mr. Jason Kincade
1305 Rossi Road
Mountain Home, AR 72653

**RE: Approval of Minor Permit Modification and Transmittal of Permit Addendum
Area 1-2 Revised Closure Plan
NABORS Class 1 Landfill
Permit Number: 0249-S1-R2
Document Number: 61811**

**AFIN: 03-00051
Cross Reference Numbers: 61223 and 61737**

Dear Mr. Kincade:

ADEQ Solid Waste Management Division staff has received and reviewed a minor permit modification application associated with a revised closure plan in Area 1-2. The modification is submitted in accordance with CAO 12-021. The SWMD hereby approves the minor permit modification and transmits the attached permit addendum.

This approval requires NABORS to adjust the balance in the Area 1-2 account to reflect the approved third party cost estimates in accordance with CAO 10-157, Order and Agreement, Paragraph 3. The new approved cost estimate for closure of Area 1-2 is \$2,547,152.73 and the estimate for post-closure care for both of Areas 1-2 and 1-3 combined is \$1,535,000 (\$307,000 assurance required with 80% post-closure trust fund coverage).

This authorization is given in reliance upon the statements and representations made to the Department, and the Department has no responsibility for ultimate proper functioning of the disposal facility. The Department also reserves the right to request additional information if deemed necessary. This approval shall not remove any liability nor hold the NABORS Class 1 Landfill harmless in the event of any adverse environmental or public health conditions resulting from this authorization. The NABORS Class 1 Landfill shall be solely and fully responsible for implementing any corrective action necessary to remediate any adverse condition at the site based on this authorization.

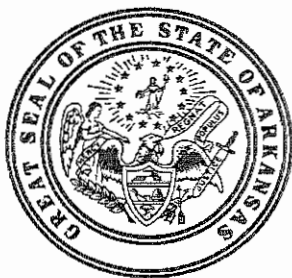
Please call me at 682-0600 should you have any questions regarding the above information.

Sincerely,



Roger Lawrence, Chief SWMD

cc: Karen Bassett, Chief Deputy Director ADEQ
David Osmon, Mayor, City of Mountain Home
Tim McKinney, Mayor, City of Berryville
Gary Meador, District Field Inspector SWMD
Mark Russell, Aquaterra



ADDENDUM TO PERMIT

STATE OF ARKANSAS

DEPARTMENT OF ENVIRONMENTAL QUALITY

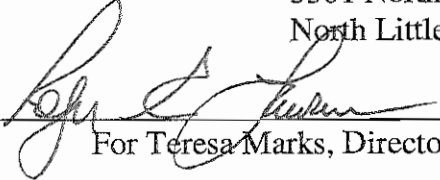
SOLID WASTE MANAGEMENT DIVISION



Landfill Name		AFIN:	03-00051												
NABORS Class 1 Landfill		Permit No:	0249-S1-R2												
Application reference (Date/doc ID)	Description of Addendum to Permit														
November 15, 2011 Document # 61223	Permit Modification Application Forms														
November 15, 2011 Document # 61223 February 7, 2012 Document # 61737	<p>This minor permit modification approves a revised closure plan for Area 1-2. The revised plan modifies the permitted contours and increases the amount of waste placed in Area 1-2. Total capacity for the site is increased to 2,862,542 cubic yards of waste including daily and intermediate cover.</p> <p>Approved drawings include:</p> <table><tr><td>Drawing 3 Final Cover Grading Plan</td><td>Document #61223</td></tr><tr><td>Drawing 4 Area 1-2 Closure</td><td>Document #61223</td></tr><tr><td>Drawing 5 Profiles</td><td>Document #61223</td></tr><tr><td>Drawing 6 Final Cover Details</td><td>Document #61737</td></tr></table> <p>Approved plans include:</p> <table><tr><td>Closure and Post-Closure Plan</td><td>Document#61223</td></tr><tr><td>CQA Plan</td><td>Document #61737</td></tr></table>			Drawing 3 Final Cover Grading Plan	Document #61223	Drawing 4 Area 1-2 Closure	Document #61223	Drawing 5 Profiles	Document #61223	Drawing 6 Final Cover Details	Document #61737	Closure and Post-Closure Plan	Document#61223	CQA Plan	Document #61737
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Closure and Post-Closure Plan	Document#61223														
CQA Plan	Document #61737														
Revised and Additional Permit Conditions															
9	The permit will expire when the disposal area described in the final engineering plans for Area 1-1, Area 1-2, and Area 1-3 have been closed in accordance with the approved closure plans and completion of the approved post-closure care plan and all other provisions of Regulation 22 or other applicable regulation or statutes have been satisfied. The final grades and elevations shown on the approved plans shall not be exceeded in anticipation of settlement and consolidation of the waste mass.														

10	<p>The approved permit plans for the facility are as follows:</p> <p>---Area 1-2 closure---</p> <p>Drawing 3 Final Cover Grading Plan Document #61223</p> <p>Drawing 4 Area 1-2 Closure Document #61223</p> <p>Drawing 5 Profiles Document #61223</p> <p>Drawing 6 Final Cover Details Document #61737</p> <p>-----</p> <p>Subgrade Grading Plan-Area 1-3 Drawing 5 of 22 Doc. ID# 34683</p> <p>Grading Plan – Top of Compacted Clay Liner-Area 1-3 Drawing 6 of 22 Doc. ID# 34683</p> <p>Final Grading Plan-Area 1-3 Drawing 8 of 22 Doc. ID # 34683</p> <p>Stormwater Control Plan-Area 1-3 Drawing 10 of 22 Doc. ID # 34683</p> <p>Passive Gas Control Plan-Area 1-3 Drawing 11 of 22 Doc. ID # 34683</p> <p>Liner Details-Area 1-3 Drawing 16 of 22 Doc. ID # 34888</p> <p>Leachate Collection System Details-Area 1-3 Drawing 19 of 22 Doc. ID # 34888 Drawing 20 of 22 Doc. ID # 34683 Drawing 21 of 22 Doc. ID # 34683</p> <p>Final Cover System Details-Area 1-3 Drawing 22 of 22 Doc. ID # 34683</p> <p>Stormwater Control Details-Area 1-3 Drawing 17 of 22 Doc. ID # 34888 Drawing 18 of 22 Doc. ID # 34888</p>
11	The facility is permitted for 2,862,542 cubic yards of solid waste disposal including daily and intermediate cover material. Of the 2,862,542 cubic yards of solid waste disposal capacity, 1,683,316 is contained within the Area 1-1 and Area 1-2 disposal areas. 1,179,226 cubic yards of solid waste disposal capacity is contained within Area 1-3.
19b	Additional CQA plans have been provided and are approved for closure of Area 1-2. Closure of Area 1-2 shall follow the revised CQA plan located in SWMD Document ID# 61737 and otherwise meet the requirements of Regulation 22.428.
19c	The CQA plan located in Document ID# 61737 contains a typo in the narrative language regarding maximum particle size. The typo is inconsistent with the specification summary table in the CQA plan. Particle size in clay barrier materials shall be limited to no particles greater than 1" in accordance with 22.428.
20a	Additional closure plans and details for Area 1-2 have been provided and approved. Closure of Area 1-2 shall be in accordance with the minor modification submittal and deficiency response information contained in in SWMD Document ID# 61223, 61737, this permit, and Regulation 22.
30	Within thirty (30) days of the effective date of this permit action, the permittee shall provide the conditions for disbursement of monies from the Area 1-2 closure account for ADEQ approval.

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


For Teresa Marks, Director

2/23/2012
Date

CERTIFICATE OF SERVICE

I hereby certify that a copy of the aforementioned permit has been mailed by first-class mail to Mr. Jason Kincade, 1305 Rossi Road, Mountain Home, AR 72653.

Certified by Tommi West on or before this 24th day of February, 2012.

Statement of Basis – Rationale for Permit Conditions	
22.306(c) requires permit decisions to include a rationale for the decisions made including technical basis for site specific conditions. Following is a summary of the rationale for the new and revised conditions presented in this modification.	
9	Regulation 22.309(a)
10	22.303(c) and technical specification within Regulation 22, Chapter 4 and 13
11	Volume calculated from the new approved plans and permitted in accordance with 22.309
19b	22.428
19c	22.428(c)(3)
20a	Regulation 22 Chapter 13
30	Applicant has previously agreed to provide the conditions for disbursement in CAO 10-157. Thirty (30) days is the maximum allowable time to begin construction according to CAO 12-021.