

Permit No. 0690-WR-5  
AFIN No. 14-00011

**AUTHORIZATION FOR A NO-DISCHARGE WATER PERMIT UNDER  
THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT**

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.* and Ark. Code. Ann. § 8-4-201 *et seq.*):

**Albemarle Corporation**  
**P. O. Box 729**  
**Magnolia, AR 71754-0729**

is authorized to operate and maintain the surface facilities associated with the brine pretreatment and management system located at the Albemarle Corporation West Plant 4.3 miles west of Magnolia in Columbia County at the following coordinates:

Latitude: 33° 15' 47" North Longitude: 93° 18' 56" West

Operation shall be in accordance with all conditions set forth in this permit.

Effective Date: November 1, 2017

Expiration Date: October 31, 2022



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Caleb J. Osborne  
Associate Director, Office of Water Quality  
Arkansas Department of Environmental Quality

10/18/17

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Issue Date

**Part I**  
**SPECIFIC CONDITIONS**

1. This permit is for the operation of the Albemarle Corporation West Plant brine pretreatment and management system consisting of a leachate interception system and connecting underground pipeline that ties into the existing Class V injection system (ADEQ Permit No. 4007-WR-2) and the Dow Chemical leachate storage tanks and Class I Underground Control Injection well (ADEQ Permit No. 0017-UR-1). This permit regulates the brine pretreatment and management system in tandem with Industrial Stormwater Permit Tracking No. ARR00A588.
2. Waste shall not be discharged from this operation to the waters of the State or onto the land in any manner that may result in runoff to the waters of the State.
3. The waste disposal system shall be operated and maintained in accordance with the final plans and specifications as approved by the Department of Environmental Quality.
4. No extension or modification of the system facilities may be made without the issuance of a new permit or permit modification. The ADEQ shall be notified upon any modification of the system which may require permit modification.
5. This permit is issued in reliance upon the statements and representations made in the application and associated documents. The Department has no responsibility for the adequacy or proper functioning of the brine management and disposal system.
6. The permittee shall at all times ensure there is no-discharge of fluids to the ground surface or to the waters of the State from flow lines or from any related structures at this facility. The discharge of any fluids transported by this system is strictly prohibited. The permittee shall notify the Department immediately, within 24 hours in the event of the release of any fluids to the ground surface or into the waters of the State. This is a violation of the permit.

**Part II**  
**STANDARD CONDITIONS**

**1. Duty to Comply**

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-101 *et seq.* and is grounds for civil and administrative enforcement action; for permit termination, revocation and reissuance, or modification; or for rejection of a permit renewal application.

**2. Penalties for Violations of Permit Conditions**

The Arkansas Water and Air Pollution Control Act, Ark. Code Ann. § 8-4-101 *et seq.* provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars (\$25,000) or both for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to a civil penalty not to exceed ten thousand dollars (\$10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

**3. Permit Actions**

- A. This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:
- i. Violation of any terms or conditions of this permit;
  - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
  - iii. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
  - iv. Failure of the permittee to comply with the provisions of Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 9 (Permit fees).
- B. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not suspend any permit condition.

4. **Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state statutes or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act, (Ark. Code Ann. § 8-4-101 *et seq.*).

5. **Oil and Hazardous Substance Liability**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act and Section 106 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

6. **State Laws**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

7. **Property Rights**

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

8. **Severability**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

9. **Permit Fees**

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for no-discharge permits as described in APC&EC Regulation No. 9 (Regulation for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit the provisions of APCEC Regulation No. 8.

10. **Proper Operation and Maintenance**

A. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B. The permittee shall provide an adequate and trained operating staff which is duly qualified to carry out operation, maintenance, and testing functions required to insure compliance with the conditions of this permit.

11. **Duty to Mitigate**

The permittee shall take all reasonable steps to prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health, the environment, or the water receiving the discharge.

12. **Removed Substances**

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the waters of the State.

13. **Reporting of Violations and Unauthorized Discharges**

A. Any violations to this permit must be reported to the Enforcement Branch of the Department immediately. Any leaks or seeps shall be reported to the Department and appropriately corrected. Any discharge from the fluids storage system such as an overflow, a broken pipe, etc., shall be immediately reported to the Department.

- B. The operator shall visually monitor and report immediately (within twenty-four (24) hours) to the Enforcement Branch any unauthorized discharge from any facility caused by dike or structural failure, equipment breakdown, human error, etc., and shall follow up with a written report within five (5) days of such occurrence. The written report shall contain the following:
- i. A description of the permit violation and its cause;
  - ii. The period of the violation, including exact times and dates;
  - iii. If the violation has not been corrected, the anticipated time expected to correct the violation; and
  - iv. Steps taken or planned to reduce, eliminate, and prevent the recurrence of the violation.
- C. Reports shall be submitted to the Enforcement Branch at the following address:

Arkansas Department of Environmental Quality  
Water Division, Enforcement Branch  
5301 Northshore Dr.  
North Little Rock, Arkansas 72118  
Fax (501) 682-0910

Or

[Water-enforcement-report@adeq.state.ar.us](mailto:Water-enforcement-report@adeq.state.ar.us)

**14. Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars (\$10,000) or by both such fine and imprisonment.

**15. Laboratory Analysis**

All laboratory analyses submitted to the Department shall be completed by a laboratory certified by ADEQ under Ark. Code Ann. § 8-2-201 *et seq.* Analyses for the permittee's internal quality control or process control do not need to be performed by an ADEQ certified laboratory.

**16. Retention of Records**

The permittee shall retain records of all monitoring information, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

**17. Record Contents**

Records and monitoring information shall include:

- A. The date, exact place, time, and methods of sampling or measurements, and preservatives used, if any;
- B. The individuals(s) who performed the sampling or measurements;
- C. The date(s) the analyses were performed;
- D. The individual(s) who performed the analyses;
- E. The analytical techniques or methods used; and
- F. The measurements and results of such analyses.

**18. Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
- D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance any substances or parameters at any location.

19. **Planned Changes**

The permittee shall give notice and provide the necessary information to the Director for review and approval prior to any planned physical alterations or additions to the permitted facility.

20. **Anticipated Noncompliance**

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

21. **Transfers**

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

22. **Duty to Provide Information**

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying; revoking and reissuing, or terminating this permit; or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

23. **Duty to reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Conditions of this permit will continue in effect past the expiration date pending issuance of a new permit, if:

- A. The permittee has submitted a timely and complete application; and
- B. The Director, through no fault of the permittee, does not issue a new permit prior to the expiration date of the previous permit.



**24. Signatory Requirements**

- A. All applications, reports or information submitted to the Director shall be signed and certified. All permit applications shall be signed as follows:
- i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
    - a. A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
    - b. The manager of one or more manufacturing, production, or operation facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including: having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - ii. For a partnership or sole proprietorship: by a general partner or proprietor, respectively; or
  - iii. For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - a. The chief executive officer of the agency, or
    - b. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- B. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- i. The authorization is made in writing by a person described above,
  - ii. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized

representative may thus be either a named individual or any individual occupying a named position); and

iii. The written authorization is submitted to the Director.

- C. Any person signing a document under this section shall make the following certification: *“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”*

**25. Availability of Reports**

Except for data determined to be confidential under the Arkansas Trade Secrets Act (Ark. Code Ann. § 4-75-601 *et seq.*), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Environmental Quality. The name and address of any permit applicant or permittee, permit applications, permits, and waste data shall not be considered confidential.

**26. Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject to civil penalties and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*).

**27. Applicable Federal, State, or Local Requirements**

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable Federal, State, or local statute, ordinance policy, or regulation.

**Part III**  
**DEFINITIONS**

“**Act**” means the Arkansas Water and Air Pollution Control Act (A.C.A. §. 8-4-101 *et seq.*), as amended.

“**Air stripper**” means a device that promotes contact between air and liquids, stripping out volatile compounds.

“**APCEC**” means the Arkansas Pollution Control and Ecology Commission.

“**Applicable water quality standards**” means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303 (a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under Regulation No. 2, as amended, (regulation establishing water quality standards for surface waters of the State of Arkansas).

“**Brine**” means water containing more dissolved inorganic salt than typical seawater and/or water containing salts in solution, such as sodium, calcium, or bromides.

“**Department**” means the Arkansas Department of Environmental Quality (ADEQ).

“**Director**” means the Director of the Arkansas Department of Environmental Quality.

“**Leachate**” means any liquid that, in the course of passing through matter, extracts soluble or suspended solids, or any other component of the material through which it has passed.

“**Severe property damage**” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in products.

“**Tail brine**” means the residual brine left after the debromination process.

“**UIC**” means underground injection control.

## STATEMENT OF BASIS

This Statement of Basis is for information and justification of the permit limits only and is not enforceable. This permit decision is for renewal of a No-Discharge operation under permit number 0690-WR-5 and AFIN (file) number 14-00011.

### 1. Permitting Authority

Arkansas Department of Environmental Quality  
Office of Water Quality, Permits Branch  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

### 2. Applicant

Albemarle Corporation  
P. O. Box 729  
Magnolia, AR 71754-0729  
Contact: Steve Card, Environmental Manager  
steve.card@albemarle.com  
(870)-235-6270

### 3. Facility Location

The facility is located as follows: 4.3 miles west of Magnolia, near the community of Magnolia, at 2270 Highway 79 South, Columbia County, Arkansas. The facility is located at the following coordinates:

Latitude: 33.25783° North Longitude: 93.30930° West

### 4. Receiving Stream Location

The facility is located 1320 feet from Dismukes Branch in Stream Segment 1A of the Red River basin which is not listed in the latest ADEQ 303(d) list of impaired waters.

### 5. Consultant for this Facility

Ananth Bukkapatnam, AR P.E. No.17275  
AECOM  
9400 Amberglen Boulevard  
Austin, TX 78720-1088  
Telephone: (572) 454-4797

## 6. Permit History

- A. Permit No. 0690-W Permit 0690-W was originally issued as a no-discharge brine disposal permit when the Albemarle West Plant (at that time the Dow Chemical Company (Dow)) had existing earthen tail brine ponds. At that time, recovered ground water was discharged into the brine ponds.
- B. Permit No. 0690-WR-1 was issued to the Dow Corporation. The ponds were replaced with tanks to prevent the leakage of brine constituents from the ponds. Shortly after that time period, Dow installed a remediation system, including a leachate interception system and subsequently a leachate treatment system to address the subsurface organics chemicals that had been recently discovered in the ground water. Ethyl Corporation acquired the West Plant facility from Dow in 1987. Albemarle spun off from Ethyl in 1995. When Ethyl acquired the facility in 1987, Dow retained a small portion of the property, as well as liability for the clean-up of existing contamination.
- C. Permit No. 0690-WR-2 was issued to the Ethyl Corporation for the transfer of the facility from Dow Chemical with no other changes and was effective September 21, 1987 with no expiration date for the construction, operation, and maintenance of the waste disposal system.
- D. Permit No. 0690-WR-3 was a modification issued to the Albemarle Corporation and was effective February 24, 2006 with an expiration date of February 23, 2011 for the operation of the brine management and pretreatment system. The modification was for the name change of the Ethyl Corporation to the Albemarle Corporation. Dow constructed a Class I hazardous waste Underground Injection Control (UIC) disposal well (permit no. 0017-UR-1) to replace the groundwater air stripper used to treat the organic chemicals in the ground water. The groundwater air stripper closed down on December 31, 2010 and the disposal well was authorized to begin injecting January, 2011.
- E. Permit No. 0690-WR-4 was issued to the Albemarle Corporation and effective July 1, 2012 with an expiration date of June 30, 2017 for the operation and maintenance of the surface facilities associated with the brine pretreatment and management system.

## 7. Permit Activity

Previous Permit No.: 0690-WR-4

Previous AFIN: 14-00011

Effective Date: July 1, 2012

Expiration Date: June 30, 2017

The permittee submitted a permit renewal application on March 30, 2017 and additional information on April 28, 2017. It is proposed that the current water no-discharge permit be reissued for a five-year term. There are no changes from the previous permit.

Legal Order Review:

There are currently no active Consent Administrative Orders (CAOs) or Notice of Violations (NOVs) for this facility.

Site Visits/Inspections:

An inspection for this facility was conducted on July 18, 2012. No violations were noted at the time of inspection.

**8. Applicant Activity**

Under the standard industrial classification (SIC) code 1499 or North American Industry Classification System (NAICS) code 212399, the applicant activities are the operation of the surface facilities associated with a brine management and pretreatment system.

**9. Waste Storage Component(s)**

- A. Leachate interception system
- B. Connecting underground pipeline
- C. Tie in to existing Class V injection well system (permit no. 4007-WR-2)
- D. Dow Chemical UIC hazardous waste disposal well (permit no. 0017-UR-1)

**10. Basis For Permit Conditions**

The Arkansas Department of Environmental Quality has made a tentative determination to issue a permit for the no-discharge facility as described in the application and waste management plan. Permit requirements and conditions are based on regulations pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 *et seq* and A.C.A. Sec. 8-4-201 *et seq.*) Standard Conditions have been included in this permit based on the sources listed below and generally accepted scientific knowledge, engineering practices, and the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et. seq.*).

**11. Point of Contact**

The following staff contributed to the preparation of this permit:

Linda Hanson  
Geologist P.G.  
Permits Branch, Office of Water Quality  
5301 Northshore Drive  
North Little Rock, AR 72118-5317  
501-682-0648  
E-mail: hanson@adeq.state.ar.us

Technical review

Jamal Solaimanian, Ph.D., P.E.  
Engineer Supervisor, No Discharge Section  
Permits Branch, Office of Water Quality  
5301 Northshore Drive  
North Little Rock, AR 72118-5317  
501-682-0620  
E-mail: jamal@adeq.state.ar.us

**12. Sources**

The following Sources were used to draft the permit:

- A. APC&EC Regulation 1, Regulation for the Prevention of Pollution by Salt Water and other Oil Field Wastes Produced by Wells in All Fields or Pools, as amended.
- B. APC&EC Regulation No. 2, Water Quality Standards for Surface Waters of the State of Arkansas, as amended.
- C. APC&EC Regulation No. 8, Administrative Procedures, as amended.
- D. APC&EC Regulation No. 9, Fee System for Environmental Permits, as amended.
- E. Arkansas Water and Air Pollution Control Act. (Ark. Code Ann. 8-4-101 *et seq.*).
- F. Integrated Water Quality and Assessment Report (305(b) Report).
- G. Application for permit no. 0690-WR-5 received March 30, 2017.
- H. ADEQ Industrial Stormwater Permit Tracking No. ARR00A588.
- I. Telephone conversation with Steve Card, Albemarle Corporation on April 24, 2017.
- J. A copy of the application signed and stamped by an Arkansas-registered Professional Engineer received April 28, 2017.
- K. Email regarding enforcement action status dated May 1, 2017.