

**AUTHORIZATION TO DISCHARGE WASTEWATER UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND
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 the Clean Water Act (33 U.S.C. § 1251 et seq.),

Ash Grove Cement Company

is authorized to discharge from a facility located as follows: 4343 Highway 108 W, Foreman, AR 71836; approximately two miles southwest of Foreman, AR on Highway 108 West in Little River County, Arkansas. The applicant's mailing address is: 4343 Highway 108 W, Foreman, AR 71836.

Latitude: 33° 41' 59.3" N; Longitude: 94° 24' 57.8" W

to receiving waters named:

an unnamed tributary, thence to French Creek, thence to Walnut Bayou, thence to the Red River in Segment 1B of the Red River Basin.

The outfalls are located at the following coordinates:

Outfall 001: Latitude: 33° 41' 9.2"; Longitude: 94° 25' 28.4"
Outfall 002: Latitude: 33° 41' 29.6"; Longitude: 94° 25' 36.3"
Outfall 003: Latitude: 33° 41' 15.3"; Longitude: 94° 25' 28.7"

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit. Per Part III.D.10, the permittee must re-apply 180 days prior to the expiration date below for permit coverage to continue beyond the expiration date.

Effective Date: January 1, 2018
Expiration Date: December 31, 2022



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

11/22/17

Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - discharge from Fishing Lake (active quarry dewatering and stormwater runoff from inactive Cement Kiln Dust landfill).

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

| <u>Effluent Characteristics</u> | <u>Discharge Limitations</u> | | | | <u>Monitoring Requirements</u> | |
|---------------------------------|--|--------------|--|----------------------------|--------------------------------|-------------------------|
| | Mass (lbs/day, unless otherwise specified) | | Concentration (mg/l, unless otherwise specified) | | Frequency | Sample Type |
| | Monthly Avg. | Daily Max | Monthly Avg. | Daily Max | | |
| Flow | N/A | N/A | Report, MGD | Report, MGD | once/month ¹ | calculated ² |
| Total Suspended Solids (TSS) | N/A | N/A | N/A | 50 | once/month ¹ | grab |
| pH | N/A | N/A | <u>Minimum</u> 6.0 s.u. | <u>Maximum</u> 9.0 s.u. | once/month ¹ | grab |

¹ Samples shall be taken at the first discharge of each calendar month.

² Flow is calculated using bucket and stopwatch method.

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken at the discharge from the fishing lake at the end of the outfall pipe.

SECTION A2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 002 - discharge from the coal pile sedimentation pond (stormwater runoff from the coal storage area).

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 002. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

| <u>Effluent Characteristics</u> | <u>Discharge Limitations</u> | | | | <u>Monitoring Requirements</u> | |
|---|--|--------------|--|----------------------------|--------------------------------|-------------------------|
| | Mass (lbs/day, unless otherwise specified) | | Concentration (mg/l, unless otherwise specified) | | Frequency | Sample Type |
| | Monthly Avg. | Daily Max | Monthly Avg. | Daily Max | | |
| Flow | N/A | N/A | Report, MGD | Report, MGD | once/month ¹ | calculated ² |
| Total Suspended Solids (TSS) | N/A | N/A | N/A | 50 | once/month ¹ | grab |
| Total Recoverable Arsenic (As) ³ | N/A | N/A | Report (µg/l) | Report (µg/l) | once/quarter | grab |
| pH | N/A | N/A | <u>Minimum</u> 6.0 s.u. | <u>Maximum</u> 9.0 s.u. | once/month ¹ | grab |

¹ Samples shall be taken at the first discharge of each calendar month.

² Flow is calculated using the cross-sectional area of the outfall pipe and measured velocity through the pipe.

³ For one year from the effective date of the permit. See Part II.5 (Arsenic Condition).

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken at the discharge from the coal pile sedimentation pond at the end of the outfall pipe.

SECTION A3. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 003 - discharge from the process water pond consisting of the following sources: stormwater runoff from the former coal processing area and coal washout pond, sanitary wastewater treatment lagoon effluent, lab/office building sanitary package plant effluent, wash-down water from the plant process area, raw material storage area, salvage storage area, and inactive Cement Kiln Dust landfill area, truck washout water, and active Cement Kiln Dust landfill leachate sedimentation pond.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 003. Such discharges shall be limited and monitored by the permittee as specified below as well as Parts II and III. See Part IV for all definitions and calculations.

| <u>Effluent Characteristics</u> | <u>Discharge Limitations</u> | | | | <u>Monitoring Requirements</u> | |
|---|--|--------------|--|----------------------------|---------------------------------------|----------------------------|
| | Mass (lbs/day, unless otherwise specified) | | Concentration (mg/l, unless otherwise specified) | | Frequency | Sample Type |
| | Monthly Avg. | Daily Max | Monthly Avg. | Daily Max | | |
| Flow | N/A | N/A | Report, MGD | Report, MGD | once/month ¹ | instantaneous ² |
| Biochemical Oxygen Demand (BOD ₅) | N/A | N/A | 10 | 15 | once/month ¹ | grab |
| Total Suspended Solids (TSS) | N/A | N/A | N/A | 50 | once/month ¹ | grab |
| Dissolved Oxygen (DO) | | | | | | |
| (May – October) | N/A | N/A | 2.0 (Inst. Min.) | | once/week | once/week |
| (November – April) | N/A | N/A | 5.0 (Inst. Min.) | | once/week | once/week |
| Fecal Coliform Bacteria (FCB) | | | (colonies/100ml) | | | |
| | N/A | N/A | 1000 | 2000 | once/month ¹ | grab |
| Total Recoverable Arsenic (As) ³ | N/A | N/A | Report (µg/l) | Report (µg/l) | once/quarter | grab |
| pH | N/A | N/A | <u>Minimum</u> 6.0 s.u. | <u>Maximum</u> 9.0 s.u. | once/month ¹ | grab |

¹ Samples shall be taken at the first discharge of each calendar month.

² Flow is determined using a rectangular weir.

³ For one year from the effective date of the permit. See Part II.5 (Arsenic Condition).

Oil, grease, or petrochemical substances shall not be present in receiving waters to the extent that they produce globules or other residue or any visible, colored film on the surface or coat the banks and/or bottoms of the waterbody or adversely affect any of the associated biota. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken at the discharge from the process water pond at the rectangular weir at Outfall 003.

SECTION B. PERMIT COMPLIANCE SCHEDULE

None.

PART II OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall hold a Class I license and a Basic Industrial license from the State of Arkansas in accordance with APC&EC Regulation No. 3.
2. In accordance with 40 CFR Parts 122.62 (a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.
3. Other Specified Monitoring Requirements

The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I Section A of the permit without a major permit modification under the following conditions:

- The monitoring and analytical instruments are consistent with accepted scientific practices.
- The requests shall be submitted in writing to the Permits Section of the Office of Water Quality of the ADEQ for use of the alternate method or instrument.
- The method and/or instrument is in compliance with 40 CFR Part 136 or approved in accordance with 40 CFR Part 136.5.
- All associated devices are installed, calibrated, and maintained to ensure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period. ADEQ must be notified in writing and the permittee must receive written approval from ADEQ if the permittee decides to return to the original permit monitoring requirements.

4. Stormwater runoff commingling with other process wastewater discharged from Outfall 001, Outfall 002, and Outfall 003 shall be managed in accordance with Best Management Practices (BMPs), as defined in Part IV.6, to control the quality of stormwater discharges associated with industrial activity that are authorized by this permit. All spilled products and other spilled wastes must be immediately cleaned up and properly disposed. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility.

5. The requirement to sample, analyze, and report the Monthly Average and Daily Maximum values of Concentration and Mass of Total Recoverable Arsenic (As) in the effluent in accordance with the requirements in Part IA Section A1 of the permit is applicable for one year from the effective date of the permit. After the results of four (4) samples have been reported in accordance with the above requirements, the permittee may cease the monitoring and reporting of Total Recoverable Arsenic.

The permittee may use any EPA approved method based on 40 CFR Part 136 provided the MQL for the chosen method is equal to or less than what has been specified in chart below:

| Pollutant | MQL (µg/l) |
|---------------------------|------------|
| Total Recoverable Arsenic | 0.5 |

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 CFR Part 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to ADEQ, NPDES Permits Branch, a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that a site specific MDL was correctly calculated. A site specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval by Permits Branch, the site specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

PART III STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Water Act and the Arkansas Water and Air Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; and/or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report (DMR) which are in excess of an effluent limitation specified in Part I shall constitute evidence of violation of such effluent limitation and of this permit.**

2. Penalties for Violations of Permit Conditions

The Arkansas Water and Air Pollution Control Act 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 by both such fine and imprisonment for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, 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

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

- A. Violation of any terms or conditions of this permit.
- B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
- C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- D. 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.
- E. Failure of the permittee to comply with the provisions of APC&EC Regulation No. 9 (Permit fees) as required by Part III.A.11 herein.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4. **Toxic Pollutants**

Notwithstanding Part III.A.3, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APC&EC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APC&EC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. **Civil and Criminal Liability**

Except as provided in permit conditions for “Bypass of Treatment Facilities” (Part III.B.4), and “Upset” (Part III.B.5), 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 and federal 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.).

6. **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 to under Section 311 of the Clean Water Act.

7. **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 under authority preserved by Section 510 of the Clean Water Act.

8. **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.

9. 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.

10. 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 requirements such as endangered species, state or local statute, ordinance or regulation.

11. 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 wastewater 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 under the provisions of 40 CFR Parts 122.64 and 124.5(d), as adopted in APC&EC Regulation No. 6 and the provisions of APC&EC Regulation No. 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. 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 operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to insure compliance with the conditions of this permit.

2. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control

production or discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. **Duty to Mitigate**

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

4. **Bypass of Treatment Facilities**

“Bypass” means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).

A. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.B and 4.C.

B. Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III.D.6 (24-hour notice).

C. Prohibition of bypass

1. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal or preventive maintenance.
 - (c) The permittee submitted notices as required by Part III.B.4.B.
2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.C(1).

5. Upset Conditions

- A. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.B of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- B. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
1. An upset occurred and that the permittee can identify the specific cause(s) of the upset.
 2. The permitted facility was at the time being properly operated.
 3. The permittee submitted notice of the upset as required by Part III.D.6.
 4. The permittee complied with any remedial measures required by Part III.B.3.
- C. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

- A. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State. The Permittee must comply with all applicable state and Federal regulations governing the disposal of sludge, including but not limited to 40 CFR Part 503, 40 CFR Part 257, and 40 CFR Part 258.
- B. Any changes to the permittee's disposal practices described in Part II of the permit will require at least 180 days prior notice to the Director to allow time for additional permitting. Please note that the 180 day notification requirement may be waived if additional permitting is not required for the change.

7. Power Failure

The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators, or retention of inadequately treated effluent.

SECTION C – MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified,

before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharge shall be monitored.

2. **Flow Measurement**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Department approved method (i.e., as allowed under Part II.3), the +/- 10% accuracy requirement described above is waived. This waiver is only applicable when the method used for calculation of the flow has been reviewed and approved by the Department.

3. **Monitoring Procedures**

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to insure accuracy of measurements and shall insure that both calibration and maintenance activities will be conducted. An adequate analytical quality control program, including the analysis of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. At a minimum, spikes and duplicate samples are to be analyzed on 10% of the samples.

4. **Penalties for Tampering**

The Arkansas Water and Air Pollution Control Act 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.

5. **Reporting of Monitoring Results**

40 CFR 127.11 (a)(1) and 40 CFR 127.16 (a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory Authorities must initially request access for a NetDMR account. Once a NetDMR account is

established, access to electronic filing should use the following link <https://netdmr.epa.gov>. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 CFR 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25th day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated on the DMR.

7. **Retention of Records**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, 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 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.

8. **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 individual(s) who performed the sampling or measurements.
- C. The date(s) and time analyses were performed.
- D. The individual(s) who performed the analyses.
- E. The analytical techniques or methods used.
- F. The measurements and results of such analyses.

9. **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.

- D. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. Planned Changes

The Permittee shall give notice to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 CFR 122.41(l)]. Notice is required only when:

- A. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 CFR 122.29(b).
- B. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants subject to effluent limitations in the permit, or to the notification requirements under 40 CFR 122.42(b).

2. 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.

3. 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.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part III.C.5. **Discharge Monitoring Reports must be submitted even when no discharge occurs during the reporting period.**

5. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. **Twenty-four Hour Report**

- A. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:
1. A description of the noncompliance and its cause.
 2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue.
 3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- B. The following shall be included as information which must be reported within 24 hours:
1. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 2. Any upset which exceeds any effluent limitation in the permit.
 3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Section of the Office of Water Quality of the ADEQ.
- C. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours to the Enforcement Section of the Office of Water Quality of the ADEQ.

7. **Other Noncompliance**

The permittee shall report all instances of noncompliance not reported under Parts III.D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.6.

8. **Changes in Discharge of Toxic Substances for Industrial Dischargers**

The Director shall be notified as soon as the permittee knows or has reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(1).
- B. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(2).

9. **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.

10. **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. Continuation of expiring permits shall be governed by regulations promulgated in APC&EC Regulation No. 6.

11. **Signatory Requirements**

All applications, reports, or information submitted to the Director shall be signed and certified as follows:

A. All **permit applications** shall be signed as follows:

1. 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.
 - (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.
2. For a partnership or sole proprietorship: by a general partner or proprietor, respectively.

3. 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.

(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:

1. The authorization is made in writing by a person described above.

2. 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).

3. The written authorization is submitted to the Director.

C. Certification. 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.”

12. **Availability of Reports**

Except for data determined to be confidential under 40 CFR Part 2 and APC&EC Regulation No. 6, 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. As required by the Regulations, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. **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 specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

PART IV DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 CFR 122.2 shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **“Act”** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
2. **“Administrator”** means the Administrator of the U.S. Environmental Protection Agency.
3. **“APC&EC”** means the Arkansas Pollution Control and Ecology Commission.
4. **“Applicable effluent standards and limitations”** means all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.
5. **“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 (APC&EC) Regulation No. 2, as amended.
6. **“Best Management Practices (BMPs)”** are activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State. BMPs also include treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage. BMPs may include structural devices or nonstructural practices.
7. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).
8. **“Composite sample”** is a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period.
9. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
 - A. **Mass Calculations:** For pollutants with limitations expressed in terms of mass, the “daily discharge” is calculated as the total mass of pollutant discharged over the sampling day.
 - B. **Concentration Calculations:** For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the day.
10. **“Daily Maximum”** discharge limitation means the highest allowable “daily discharge” during the calendar month.
11. **“Department”** means the Arkansas Department of Environmental Quality (ADEQ).
12. **“Director”** means the Director of the Arkansas Department of Environmental Quality.
13. **“Dissolved oxygen limit”** shall be defined as follows:

- A. When limited in the permit as a minimum monthly average, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month.
- B. When limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
14. **“E-Coli”** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For E-Coli, report the Daily Maximum as the highest “daily discharge” during the calendar month, and the Monthly Average as the geometric mean of all “daily discharges” within a calendar month, in colonies per 100 ml.
15. **“Fecal Coliform Bacteria (FCB)”** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For FCB, report the Daily Maximum as the highest “daily discharge” during the calendar month, and the Monthly Average as the geometric mean of all “daily discharges” within a calendar month, in colonies per 100 ml.
16. **“Grab sample”** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
17. **“Industrial User”** means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
18. **“Instantaneous flow measurement”** means the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.
19. **“Instantaneous Maximum”** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.
20. **“Instantaneous Minimum”** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
21. **“Monthly Average”** means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month. For Fecal Coliform Bacteria (FCB) or E-Coli, report the Monthly Average as the geometric mean of all “daily discharges” within a calendar month.
22. **“Monitoring and Reporting”**

When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date.

A. **MONTHLY:**

is defined as a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.

B. **BI-MONTHLY:**

is defined as two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently.

C. QUARTERLY:

1. is defined as a **fixed calendar quarter** or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter. Fixed calendar quarters are: January through March, April through June, July through September, and October through December.
2. is defined as a **fixed three month period** (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter. Seasonal calendar quarters are: May through July, August through October, November through January, and February through April.

D. SEMI-ANNUAL:

is defined as the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months or twice/year.

E. ANNUAL or YEARLY:

is defined as a fixed calendar year or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year. A calendar year is January through December, or any portion thereof.

23. **“National Pollutant Discharge Elimination System”** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
24. **“POTW”** means Publicly Owned Treatment Works;
25. **“Reduction of CBOD5/BOD5 and TSS in mg/l Formula”**
[(Influent – Effluent) / Influent] x 100
26. **“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.
27. **“Sewage sludge”** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.
28. **“7-Day Average”** Also known as “average weekly” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week. The 7-Day Average for Fecal Coliform Bacteria (FCB) or E-Coli is the geometric mean of the “daily discharges” of all effluent samples collected during a calendar week in colonies per 100 ml.
29. **“Treatment works”** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any

works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.

30. **Units of Measure:**

“**MGD**” shall mean million gallons per day.

“**mg/l**” shall mean milligrams per liter or parts per million (ppm).

“**µg/l**” shall mean micrograms per liter or parts per billion (ppb).

“**cfs**” shall mean cubic feet per second.

“**ppm**” shall mean parts per million.

“**s.u.**” shall mean standard units.

31. “**Upset**” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless or improper operations.

32. “**Visible sheen**” means the presence of a film or sheen upon or a discoloration of the surface of the discharge. A sheen can also be from a thin glistening layer of oil on the surface of the discharge.

33. “**Weekday**” means Monday – Friday.

Final Statement of Basis

This Statement of Basis is for information and justification of the permit limits only. Please note that it is not enforceable. This draft permitting decision is for renewal of the discharge Permit Number AR0042846 with Arkansas Department of Environmental Quality (ADEQ) Facility Identification Number (AFIN) 41-00001 to discharge to Waters of the State.

1. PERMITTING AUTHORITY

The issuing office is:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT

The facility address and mailing address is:

Ash Grove Cement Company
4343 Highway 108 W
Foreman, AR 71836

3. PREPARED BY

The permit was prepared by:

Guy Lester
Staff Engineer
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4. PERMIT ACTIVITY

Previous Permit Effective Date: June 1, 2012
Previous Permit Expiration Date: May 31, 2017

The permittee submitted a permit renewal application on December 1, 2016. The current discharge permit is reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

APC&EC - Arkansas Pollution Control and Ecology Commission
BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BMP - best management practice
BOD₅ - five-day biochemical oxygen demand
BPJ - best professional judgment
BPT - best practicable control technology currently available
CBOD₅ - carbonaceous biochemical oxygen demand
CD - critical dilution
CFR - Code of Federal Regulations
cfs - cubic feet per second
COD - chemical oxygen demand
COE - United States Corp of Engineers
CPP - continuing planning process
CWA - Clean Water Act
DMR - discharge monitoring report
DO - dissolved oxygen
ELG - effluent limitation guidelines
EPA - United States Environmental Protection Agency
ESA - Endangered Species Act
FCB - fecal coliform bacteria
gpm - gallons per minute
MGD - million gallons per day
MQL - minimum quantification level
NAICS - North American Industry Classification System
NH₃-N - ammonia nitrogen
NO₃ + NO₂-N - nitrate + nitrite nitrogen
NPDES - National Pollutant Discharge Elimination System
O&G - oil and grease
Reg. 2 - APC&EC Regulation No. 2
Reg. 6 - APC&EC Regulation No. 6
Reg. 8 - APC&EC Regulation No. 8
Reg. 9 - APC&EC Regulation No. 9
RP - reasonable potential
SIC - standard industrial classification
TDS - total dissolved solids
TMDL - total maximum daily load
TP - total phosphorus
TRC - total residual chlorine
TSS - total suspended solids
UAA - use attainability analysis
USF&WS - United States Fish and Wildlife Service

USGS - United States Geological Survey
WET - Whole effluent toxicity
WQMP - water quality management plan
WQS - Water Quality standards
WWTP - wastewater treatment plant

Compliance and Enforcement History:

The compliance and enforcement history for this facility can be reviewed by using the following web link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0042846_Compliance%20Review_20170104.pdf

5. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT

The permittee is responsible for carefully reading the permit in detail and becoming familiar with all of the changes therein:

1. Monitoring and reporting requirements for Total Recoverable Arsenic have been added in Part IA, Section A3 and Part II.5. See Section 11.F.2 below for details.
2. Part III.C.5 of the permit now requires that DMRs be submitted electronically via NetDMR.

6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION

The outfalls are located at the following coordinates based on Google Earth using WGS84:

Outfall 001: Latitude: 33° 41' 9.2"; Longitude: 94° 25' 28.4"
Outfall 002: Latitude: 33° 41' 29.6"; Longitude: 94° 25' 36.3"
Outfall 003: Latitude: 33° 41' 15.3"; Longitude: 94° 25' 28.7"

The receiving waters named:

an unnamed tributary, thence to French Creek, thence to Walnut Bayou, thence to the Red River in Segment 1B of the Red River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C.) of 11140106 and Reach #004 is a Water of the State classified for secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies; propagation of desirable species of fish and other aquatic life; and other compatible uses.

7. 303(d) LIST, TOTAL MAXIMUM DAILY LOADS, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

A. 303(d) List

The receiving stream is not listed on the 2016 303(d) list. However, it is noted that approximately 16 miles downstream from the facility discharge, the receiving stream flows into the Red River which is listed on the 2016 303(d) list as impaired for Chlorides, Sulfates, and TDS. As noted below, a TMDL for Chlorides, Sulfates, and TDS for the Red River was issued on September 27, 2012.

B. Applicable Total Maximum Daily Load (TMDL) Reports

A TMDL for Chlorides, Sulfates, and TDS for the Red River was issued on September 27, 2012. The facility was not assigned a WLA in the TMDL. Therefore, no permit action is required.

C. Endangered Species

No comments on the application were received from the USF&WS. The draft permit and Statement of Basis were sent to the USF&WS for their review.

D. Anti-Degradation

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the Anti-degradation Policy and all other applicable water quality standards found in APC&EC Regulation No. 2.

8. OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION

The following is a description of the facility described in the application:

A. Average Flows (highest monthly average flows of the last two years):

Outfall 001: 0.180 MGD
Outfall 002: 0.127 MGD
Outfall 003: 3.360 MGD

B. Type of Treatment:

Outfall 001: sedimentation pond
Outfall 002: sedimentation pond
Outfall 003: sedimentation pond

C. Discharge Description:

- Outfall 001: discharge from Fishing Lake (active quarry dewatering and stormwater runoff from inactive Cement Kiln Dust landfill)
- Outfall 002: discharge from the coal pile sedimentation pond (stormwater runoff from the coal storage area)
- Outfall 003: discharge from the Process Water Pond consisting of the following sources: stormwater runoff from the former coal processing area and coal washout pond, sanitary wastewater treatment lagoon effluent, lab/office building sanitary package plant effluent, wash-down water from the plant process area, raw material storage area, salvage storage area, and inactive Cement Kiln Dust landfill area, truck washout water, and active Cement Kiln Dust landfill leachate sedimentation pond

D. Facility Status: This facility was evaluated using the NPDES Permit Rating Worksheet (MRAT) to determine the correct permitting status. Since the facility's MRAT score of 55 is less than 80, this facility is classified as a minor industrial.

E. Facility Construction: This permit does not authorize or approve the construction or modification of any part of the treatment system or facilities. Approval for such construction must be by permit issued under Reg. 6.202.

9. ACTIVITY

Under the Standard Industrial Classification (SIC) code of 3241 or North American Industry Classification System (NAICS) code of 327310, the applicant's activities are the operation of manufacturing of portland cement.

10. SEWAGE SLUDGE PRACTICES

Sewage sludge generated from the sanitary wastewater treatment unit is hauled off and disposed of in the Upper Southwest Arkansas Regional Solid Waste Management District Class 1 Landfill under Solid Waste Permit No. 0265-S1-R1.

11. DEVELOPMENT AND BASIS FOR PERMIT CONDITIONS

The Arkansas Department of Environmental Quality has determined to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 CFR Parts 122, 124, and Subchapter N), and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et seq.). All of the information contained in the application, including all of the submitted effluent testing data, was reviewed to determine the need for effluent limits and other permit requirements.

The following is an explanation of the derivation of the conditions of the permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 CFR Part 124.7.

Technology-Based Versus Water Quality-Based Effluent Limitations and Conditions

Following regulations promulgated at 40 CFR Part 122.44, the permit limits are based on either technology-based effluent limits pursuant to 40 CFR Part 122.44 (a) or on State water quality standards and requirements pursuant to 40 CFR Part 122.44 (d), whichever are more stringent as follows:

| Parameter | Water Quality-Based | | Technology-Based | | Previous Permit | | Final Permit | |
|------------------------------------|---------------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|
| | Monthly Avg. mg/l | Daily Max. mg/l | Monthly Avg. mg/l | Daily Max. mg/l | Monthly Avg. mg/l | Daily Max. mg/l | Monthly Avg. mg/l | Daily Max. mg/l |
| Outfall 001 and Outfall 002 | | | | | | | | |
| TSS | N/A | N/A | N/A | 50 | N/A | 50 | N/A | 50 |
| pH | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | |
| Outfall 003 | | | | | | | | |
| BOD ₅ | 10 | 15 | N/A | N/A | N/A | N/A | 10 | 15 |
| TSS | N/A | N/A | N/A | 50 | N/A | 50 | N/A | 50 |
| DO | | | | | | | | |
| (May – October) | 2.0 (Inst. Min.) | | N/A | | 2.0 (Inst. Min.) | | 2.0 (Inst. Min.) | |
| (November – April) | 5.0 (Inst. Min.) | | N/A | | 5.0 (Inst. Min.) | | 5.0 (Inst. Min.) | |
| FCB (col/100ml) | 1000 | 2000 | N/A | N/A | 1000 | 2000 | 1000 | 2000 |
| Total Recoverable Arsenic (As) | N/A | N/A | Report (µg/l) | Report (µg/l) | N/A | N/A | Report (µg/l) | Report (µg/l) |
| pH | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | | 6.0 – 9.0 s.u. | |

A. Justification for Limitations and Conditions of the Final Permit

| Parameter | Water Quality or Technology | Justification |
|------------------------------------|-----------------------------|---|
| Outfall 001 and Outfall 002 | | |
| TSS | Technology | 40 CFR 411.32(a), 40 CFR 122.44 (l), and previous permit |
| pH | Technology | 40 CFR 411.32(a), 40 CFR 122.44 (l), and previous permit |
| Outfall 003 | | |
| BOD ₅ | Water Quality | MultiSMP Model dated April 12, 2017, CWA §402(o), and previous permit |
| TSS | Technology | 40 CFR 411.32(a), 40 CFR 122.44 (l), and previous permit |
| DO | Water Quality | Reg. 2.505, MultiSMP Model dated April 12, 2017, CWA §402(o), and previous permit |
| FCB | Water Quality | Reg. 2.507, CWA §402(o), and previous permit |
| Total Recoverable Arsenic (As) | Technology | Reg. 2.409 and the CPP |
| pH | Technology | 40 CFR 411.32(a), 40 CFR 122.44 (l), and previous permit |

No new information was received to warrant adding, removing, or revising any limitations in the permit. Therefore, the limitations in the permit are consistent with the limitations in the previous permit.

B. Anti-backsliding

The permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 CFR 122.44(l)]. The final effluent limitations for reissuance permits must be as stringent as those in the previous permit, unless the less stringent limitations can be justified using exceptions listed in CWA 402(o)(2), CWA 303(d)(4), or 40 CFR 122.44 (l)(2)(i).

The permit meets or exceeds the requirements of the previous permit.

C. Limits Calculations

1. Mass limits:

In accordance with 40 CFR 122.45(f)(1), all pollutants limited in permits shall have limitations expressed in terms of mass if feasible. 40 CFR 122.45(f)(2) allows for pollutants which are limited in terms of mass to also be limited in terms of other units of measurement.

Mass limitations have not been included in the permit due to the variable nature of the discharge flows due to stormwater.

2. Daily Maximum Limits:

The daily maximum limits for BOD5 is based on Section 5.4.2 of the Technical Support Document for Water Quality-Based Toxics Control.

Daily Maximum limits = Monthly average limits x 1.5

The daily maximum limits for FCB is based on Reg. 2.507.

D. **208 Plan (Water Quality Management Plan)**

The 208 Plan, developed by the ADEQ under provisions of Section 208 of the federal Clean Water Act, is a comprehensive program to work toward achieving federal water goals in Arkansas. The initial 208 Plan, adopted in 1979, provides for annual updates, but can be revised more often if necessary. The 208 Plan has been updated to revise the facility flow at Outfall 003 from 0.83 MGD to 3.36 MGD.

E. **Applicable Effluent Limitations Guidelines**

Discharges from facilities of this type are covered by Federal effluent limitations guidelines promulgated under 40 CFR Part 411, Cement Manufacturing Point Source Category, Subcategory C – Runoff from Material Storage Piles. The technology-based effluent limits for this subcategory is summarized in the table below:

| 40 CFR Part 411.32(a), Subpart C Material Storage Piles Runoff Subcategory | |
|---|-----------------------|
| Parameter | Effluent Limitations |
| TSS | 50 mg/l daily maximum |
| pH | 6.0-9.0 s.u. |

The TSS and pH limits for Subpart C are included in the permit for Outfalls 001, 002, and 003 since all of these outfalls receive runoff from material storage piles.

F. **Priority Pollutant Scan (PPS)**

ADEQ has reviewed and evaluated the effluent in accordance with the potential toxicity of each analyzed pollutant using the procedures outlined in the Continuing Planning Process (CPP).

The concentration of each pollutant after mixing with the receiving stream was compared to the applicable water quality standards as established in the Arkansas Water Quality Standards (AWQS), Regulation No. 2 (Reg. 2.508) and criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)".

Under Federal Regulation 40 CFR Part 122.44(d), as adopted by Regulation No. 6, if a discharge poses the reasonable potential to cause or contribute to an exceedance above a water quality standard, the permit must contain an effluent limitation for that pollutant.

Effluent limitations for the toxicants listed below have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA, March 1991), the CPP, and 40 CFR Part 122.45(c).

The following items were used in calculations:

| Parameter | Value | Source |
|-------------------------------|--|------------------------------------|
| Discharge Flow = Q | Outfall 001 0.180 MGD = 0.28 cfs Outfall 002 0.127 MGD = 0.20 cfs Outfall 003 3.36 MGD = 5.19 cfs | DMRs |
| 7Q10 Background Flow | 0 cfs | U.S.G.S. |
| TSS | 5.50 mg/l | CPP (Gulf Coastal Ecoregion value) |
| Hardness as CaCo ₃ | 31.0 mg/l | CPP (Gulf Coastal Ecoregion value) |
| pH | 7.0 s.u. | Assumed |

The following pollutants were reported above detection levels:

| Pollutant | Concentration Reported, µg/l | MQL, µg/l |
|--------------------|------------------------------|-----------|
| Outfall 001 | | |
| Arsenic | 0.628 | 0.5 |
| Lead | 0.649 | 0.5 |
| Mercury | 0.00285 | 0.5 |
| Outfall 002 | | |
| Arsenic | 4.24 | 0.5 |
| Mercury | 0.00314 | 0.5 |
| Nickel | 1.38 | 0.005 |
| Outfall 003 | | |
| Arsenic | 4.45 | 0.5 |
| Copper | 0.813 | 0.5 |
| Lead | 1.41 | 0.5 |
| Mercury | 0.00434 | 0.5 |
| Nickel | 1.29 | 0.005 |

Note: All data values are from a single PPS for each outfall performed on August 17, 2016.

Instream Waste Concentrations (IWCs) were calculated in the manner described in Appendix D of the CPP and compared to the applicable Criteria. The following tables summarize the results of the analysis. The complete evaluations can be viewed on the Department's website at the following addresses:

Outfall 001

https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0042846_PPS%20Outfall%200001_20170123.pdf

Outfall 002

https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0042846_PPS%20Outfall%200002_20170123.pdf

Outfall 003

https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0042846_PPS%20Outfall%200003_20170123.pdf

1. Aquatic Toxicity Evaluation

a. Acute Criteria Evaluation

| Pollutant | Concentration Reported (C _e) µg/l | C _e x 2.13 ¹ | Instream Waste Concentration (IWC) | Criteria ² | Reasonable Potential (Yes/No) |
|--------------------|--|------------------------------------|------------------------------------|-----------------------|-------------------------------|
| | | | Acute, µg/l | Acute, µg/l | |
| Outfall 001 | | | | | |
| Lead | 0.649 | 1.382 | 1.382 | 87.29 | No |
| Mercury | 0.00285 | 0.00607 | 0.00607 | 6.70 | No |
| Outfall 002 | | | | | |
| Mercury | 0.00314 | 0.00668 | 0.00668 | 6.70 | No |
| Nickel | 1.38 | 2.94 | 2.94 | 1061.45 | No |
| Outfall 003 | | | | | |
| Copper | 0.813 | 1.732 | 1.732 | 14.79 | No |
| Lead | 1.41 | 3.00 | 3.00 | 87.29 | No |
| Mercury | 0.00434 | 0.00924 | 0.00924 | 6.70 | No |
| Nickel | 1.29 | 2.75 | 2.75 | 1061.45 | No |

¹ Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.

² Criteria are from Reg. 2.508 unless otherwise specified.

b. Chronic Criteria Evaluation

| Pollutant | Concentration Reported (C_e) $\mu\text{g/l}$ | $C_e \times 2.13^1$ | Instream Waste Concentration (IWC) | Criteria ² | Reasonable Potential (Yes/No) |
|--------------------|---|---------------------|------------------------------------|--------------------------|-------------------------------|
| | | | Chronic, $\mu\text{g/l}$ | Chronic, $\mu\text{g/l}$ | |
| Outfall 001 | | | | | |
| Lead | 0.649 | 1.382 | 1.382 | 3.40 | No |
| Mercury | 0.00285 | 0.00607 | 0.00607 | 0.012 | No |
| Outfall 002 | | | | | |
| Mercury | 0.00314 | 0.00668 | 0.00668 | 0.012 | No |
| Nickel | 1.38 | 2.94 | 2.94 | 117.88 | No |
| Outfall 003 | | | | | |
| Copper | 0.813 | 1.732 | 1.732 | 10.93 | No |
| Lead | 1.41 | 3.00 | 3.00 | 3.40 | No |
| Mercury | 0.00434 | 0.00924 | 0.00924 | 0.012 | No |
| Nickel | 1.29 | 2.75 | 2.75 | 117.88 | No |

¹ Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.

² Criteria are from Reg. 2.508 unless otherwise specified.

2. Human Health (Bioaccumulation) Evaluation

| Pollutant | Concentration Reported (C_e) $\mu\text{g/l}$ | $C_e \times 2.13^1$ | Instream Waste Concentration (IWC) | EPA Water Quality Criteria (WQC) ² | Reasonable Potential (Yes/No) |
|--------------------|---|---------------------|------------------------------------|---|-------------------------------|
| | | | | | |
| Outfall 001 | | | | | |
| Arsenic | 0.628 | 1.34 | 1.34 | 1.4 ² | No |
| Outfall 002 | | | | | |
| Arsenic | 4.24 | 9.03 | 9.03 | 1.4 ² | Yes |
| Outfall 003 | | | | | |
| Arsenic | 4.45 | 9.48 | 9.48 | 1.4 ² | Yes |

¹ Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.

² Adapted from "National Recommended Water Quality Criteria: 2002 – Human Health Criteria Calculation Matrix", EPA. The respective WQC from the noted reference are Consumption of Organism Only values. The values from the reference are for a lifetime risk factor of 10^{-6} . These values have been multiplied by 10 to correspond to human health criteria lifetime risk factor of 10^{-5} as stated in Reg. 2.508.

As can be seen in the tables above, the calculated IWC for Arsenic is higher than the EPA Water Quality Criterion in the discharges from Outfall 002 and Outfall 003. A.C.A. § 8-4-216 authorizes the Department to require the submission of any information relevant to meeting the requirements of the Arkansas Water and Air Pollution Control Act. A requirement to monitor and report for Arsenic once per quarter for one year has been added to the permit for Outfall 002 and Outfall 003, so that, in the event that a WQS for Arsenic is added to Reg. 2.508, data will be available to perform a reasonable potential analysis. This is in accordance with the procedure in Appendix D of the CPP (Appendix D, Part IV – Chemical Specific Standards and Criteria, Section E – Protection of Human Health Criteria of the Discharge Permit, Toxic Control Implementation Procedure).

12. STORMWATER REQUIREMENTS

The federal regulations at 40 CFR 122.26(b)(14) require certain industrial sectors to have NPDES permit coverage for stormwater discharges from the facility. These requirements include the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to control the quality of stormwater discharges from the facility. This facility was issued stormwater permit coverage under NPDES Tracking number ARR001101.

13. SAMPLE TYPE AND FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 CFR Part 122.48(b)] and to ensure compliance with permit limitations [40 CFR Part 122.44(i)(1)].

Requirements for sample type and sampling frequency have been based on the current discharge permit.

| Parameter | Previous Permit | | Final Permit | |
|--------------------------------|---------------------|-------------------------|---------------------------|-------------------------|
| | Frequency of Sample | Sample Type | Frequency of Sample | Sample Type |
| Outfall 001 | | | | |
| Flow | once/month | calculated ¹ | once/month | calculated ¹ |
| TSS | once/month | grab | once/month | grab |
| pH | once/month | grab | once/month | grab |
| Outfall 002 | | | | |
| Flow | once/month | calculated ² | once/month | calculated ² |
| TSS | once/month | grab | once/month | grab |
| Total Recoverable Arsenic (As) | N/A | N/A | once/quarter ³ | grab ³ |
| pH | once/month | grab | once/month | grab |

| Parameter | Previous Permit | | Final Permit | |
|--------------------------------|---------------------|------------------|---------------------------|-------------------|
| | Frequency of Sample | Sample Type | Frequency of Sample | Sample Type |
| Outfall 003 | | | | |
| Flow | once/day | totalizing meter | once/month | calculated |
| BOD ₅ | once/month | grab | once/month | grab |
| TSS | once/month | grab | once/month | grab |
| DO | | | | |
| (May – October) | once/month | grab | once/month | grab |
| (November – April) | once/month | grab | once/month | grab |
| FCB | once/month | grab | once/month | grab |
| Total Recoverable Arsenic (As) | N/A | N/A | once/quarter ³ | grab ³ |
| pH | once/month | grab | once/month | grab |

¹ Flow is calculated using bucket and stopwatch method.

² Flow is calculated using the cross-sectional area of the outfall pipe and measured velocity through the pipe.

³ For one year from the effective date of the permit. See Section 11.F.2 above for details.

14. PERMIT COMPLIANCE SCHEDULE

A Schedule of Compliance has not been included in this permit.

15. MONITORING AND REPORTING

The applicant is at all times required to monitor the discharge on a regular basis and report the results monthly. The monitoring results will be available to the public.

16. SOURCES

The following sources were used to draft the permit:

- A. Application No. AR0042846 received December 1, 2016.
- B. APC&EC Regulation No. 2.
- C. APC&EC Regulation No. 3.
- D. APC&EC Regulation No. 6 which incorporates by reference certain federal regulations included in Title 40 of the Code of Federal Regulations at Reg. 6.104.
- E. 40 CFR Parts 122 and 125.
- F. 40 CFR Part 411.
- G. Discharge permit file AR0042846.
- H. Discharge Monitoring Reports (DMRs).
- I. “2016 Integrated Water Quality Monitoring Assessment Report”, ADEQ.

- J. “2016 List of Impaired Waterbodies (303(d) List)”, ADEQ, July 2017.
- K. [EPA National Recommended Water Quality Criteria.](#)
- L. Continuing Planning Process (CPP).
- M. Technical Support Document For Water Quality-based Toxic Control.
- N. Inspection Report #078193, dated June 10, 2014.
- O. [Compliance Review Memo from Jacqueline Trotta to Guy Lester dated January 4, 2017.](#)
- P. [MultiSMP Model dated April 12, 2017.](#)
- Q. [E-mail letter from EPA, dated June 20, 2017, declining full review of preliminary draft permit AR0042846.](#)
- R. [Letter, dated August 18, 2017, from Keith Byerly of Ash Grove Cement Company, to Guy Lester of ADEQ.](#)

17. POINT OF CONTACT

For additional information, contact:

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**RESPONSE TO COMMENTS
FINAL PERMITTING DECISION**

Permit No.: AR0042846
Applicant: Ash Grove Cement Company
Prepared by: Guy Lester

The following are responses to comments received regarding the draft permit number above and are developed in accordance with regulations promulgated at 40 C.F.R. §124.17, APCEC Regulation No. 8 Administrative Procedures, and A.C.A. §8-4-203(e)(2).

Introduction

The above permit was submitted for public comment on July 20, 2017. The public comment period ended on August 19, 2017.

This document contains a summary of the comments that the ADEQ received during the public comment period. A summary of the changes to the NPDES Permit can be found on the last page of this document.

The following people or organizations sent comments to the ADEQ during the public notice. A total of three (3) comments were raised by one (1) commenter.

| Commenter | # of Comments Raised |
|--------------------------|----------------------|
| Ash Grove Cement Company | 3 |

Comment 1 ADEQ cites the Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation 2.409 and the Continuing Planning Process (CPP) to require the proposed sampling. The regulation and guidance do not justify the permit condition. Ash Grove requests with all due respect the ADEQ remove the monitoring requirement for total recoverable arsenic from the final permit.

APC&EC Regulation No. 2.508 presents the Aquatic Life Criteria adopted for the State of Arkansas, and the regulation does not contain protective standards for arsenic. ADEQ obtained the data on Arsenic in the application from the company using a provision requiring the company to adhere to a limit. The department seeks to continue to get the company to monitor and report in the same way, without explanation, citing the discharge limitations; while APC&EC did not adopt water quality criteria under the APC&EC Regulation No. 2.508. The justification provided in the permit documents does not explain a reason to collect the additional data in the absence of the APC&EC adoption of criteria for the basis of a comparison. Ash Grove provided Arsenic data with the application and the ADEQ can use the data to perform a potential analysis in the event Arkansas adopts an arsenic Water Quality Standard.

Response: Regulation 2.409 prohibits discharges which will cause toxicity to humans, animal, plant or aquatic life. Not all toxic pollutants have water quality standards (WQS) in Regulation 2. The Department regularly issues NPDES permits that include conditions or limits on toxic pollutants that do not have WQS (e.g. chlorine from disinfection of treated sanitary wastewater). Arsenic is a toxic pollutant, and therefore discharges that contain Arsenic are subject to permit conditions based on Regulation 2.409.

The CPP requires the quarterly sampling for one year for toxic pollutants that cause an exceedance of EPA water quality criteria in the receiving stream, but do not have an Arkansas WQS. The CPP was developed in accordance with the requirements of Section 303(e) of the Clean Water Act (CWA), and approved by the USEPA. The CPP describes the principal management processes of the state's water quality management programs, including the processes and procedures by which the Department develops and implements discharge permit conditions (including pollutant limitations) to comply with the CWA. The EPA requires the Department to follow the procedures included in the CPP as part of the administration of the NPDES program.

The CPP in Appendix D, Part IV – Chemical Specific Standards and Criteria, Section E – Protection of Human Health Criteria (fish consumption only; pollutants for which there are no applicable standards) references Section C - Protection of Aquatic Life (Pollutants for which there are no applicable state water standards), which states:

“For all pollutants for which there are no applicable state water standards, IWCs [instream waste concentrations] are compared with the Gold Book chronic and acute criteria. If dilution calculations show that in-stream concentration exceeds Gold Book criteria for chronic and/or acute toxicity, the permit will require the permittee to monitor and report for the pollutant of concern once per quarter for one year. A reopener clause will be included in the permit to provide permit limits if state water quality standards are developed for the applicable pollutants.”

The current “Gold Book” criteria are the [EPA National Recommended Water Quality Criteria](#). The human health criterion is the most stringent criterion for Arsenic (1.4 mg/l, based on a lifetime risk factor of 10^{-5}). The discharge from Outfall 002 results in an IWC of Arsenic of 4.24 mg/l, and the discharge from Outfall 003 results in an IWC of Arsenic of 4.45 mg/l, both which exceed the EPA criteria. Therefore, the requirement for quarterly monitoring for one year in the EPA-approved CPP must be included in the permit for Outfall 002 and Outfall 003.

It should be noted that this rationale was discussed on pages 11 and 12 of Section 11.F.2 of the Statement of Basis that was attached to the draft permit.

No change has been made to the permit concerning this comment.

Comment 2 Sampling requirements for Total Recoverable Arsenic from Outfall 002 are in Section A2 on Page 2 of Part IA, but they do not appear in the table on page 12 of the Statement of Basis.

Response: The table on page 12 of the Statement of Basis has been corrected to include the sampling requirements for Total Recoverable Arsenic from Outfall 002.

Comment 3 In Section A2 on Page 2 of Part IA (Outfall 002) Total Recoverable Arsenic has a footnote 3 reference. However, there is no footnote 3 under the table. ADEQ should add identical footnotes to the tables saying the requirements sunset after one year, and allow the use of any EPA approved test method for arsenic.

Response: Footnote 3 has been added to the table in Section A2 on Page 2 Part IA of the permit. The footnote is identical to Footnote 3 in Section A3 on Page 3 Part IA of the permit. The footnotes state that the monitoring is for one year from the date of effective date of the permit. The footnotes also reference Part II.5 of the permit, which repeats the condition that monitoring and reporting for Total Recoverable Arsenic is quarterly for one year from the effective date of the permit.

Part II.5 of the permit also states that the permittee may use any EPA approved method based on 40 CFR Part 136 provided the method meets the minimum quantification level (MQL) of 0.5 µg/l.