

**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.),

The applicant's mailing and physical address is:

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

is authorized to discharge from a facility located as follows: approximately two miles southwest of Foreman, AR on Highway 108 West in Little River County, Arkansas.

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

to receiving waters named:

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

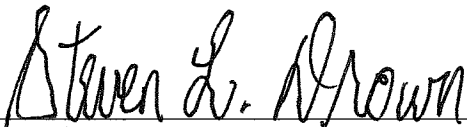
The outfalls are located at the following coordinates:

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 on or before 180 days prior to expiration date for permit coverage past the expiration date.

Response to Comments is attached to this permit.

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

  
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Steven L. Drown

Chief, Water Division  
Arkansas Department of Environmental Quality

  
\_\_\_\_\_  
Issue Date

**PART I**  
**PERMIT REQUIREMENTS**

**SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:** OUTFALL 001 – discharge from Fishing Lake (active quarry dewatering and stormwater runoff).

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 from a treatment system consisting of sedimentation in the fishing lake.

<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 <sup>1</sup>	calculated <sup>2</sup>
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	grab

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

2 Flow is calculated using bucket and stopwatch method.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. 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.

**PART I**  
**PERMIT REQUIREMENTS**

**SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:** OUTFALL 002 – discharge from the coal pile sedimentation pond (stormwater runoff from the coal storage area and closed CKD landfill).

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 from a treatment system consisting of a sedimentation pond.

<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 <sup>1</sup>	calculated <sup>2</sup>
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	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.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. 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.

**PART I**  
**PERMIT REQUIREMENTS**

**SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS:** OUTFALL 003 – discharge from the process water pond consisting of the following sources: stormwater runoff from coal processing area, truck washout water, sanitary wastewater treatment lagoon effluent, lab/office building sanitary package plant effluent, non-contact cooling water, process area wash-down water, stormwater runoff from closed Cement Kiln Dust landfill, and active CKD landfill leachate and runoff discharged from a 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 from a treatment system consisting of sedimentation in the process water pond.

<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 <sup>1</sup>	Instantaneous <sup>2</sup>
Biochemical Oxygen Demand (BOD5)	N/A	N/A	10	15	once/month <sup>1</sup>	grab
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
Dissolved Oxygen (DO)						
(May-October)	N/A	N/A	2.0 (Instantaneous Min.)		once/month <sup>1</sup>	grab
(November-April)	N/A	N/A	5.0 (Instantaneous Min.)		once/month <sup>1</sup>	grab
Fecal Coliform Bacteria (FCB)			(colonies/100ml)			
	N/A	N/A	1000	2000	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	grab

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

2 Flow is determined using a rectangular weir.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. 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**

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Compliance is required on the effective date of the permit.

## **PART II OTHER CONDITIONS**

1. The operator of this wastewater treatment facility shall be licensed as Class I and Basic Industrial by the State of Arkansas in accordance with Act 1103 of 1991, Act 556 of 1993, Act 211 of 1971, and APCEC Regulation No. 3, as amended.
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 Water Division 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; and
- All associated devices are installed, calibrated, and maintained to insure 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 outfalls 001, 002, and 003 shall be managed in accordance with Best Management Practices (BMPs) 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. 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.
6. The permittee shall measure and report the Total Recoverable Copper concentration at Outfall 002 at the first discharge from this outfall after the effective date of this permit. The permittee shall use a 40 CFR Part 136 approved test method with a method detection level (MDL) less than or equal to 0.5 µg/l. The results of the copper sample shall be submitted with the lab report to the Permit Branch of the Water Division within 30 days after the first discharge from Outfall 002 occurs.
7. The permittee shall perform a full Priority Pollutant Scan (PPS) at Outfall 001 at the first discharge from this outfall after the effective date of this permit. The results of the PPS shall be submitted on a Form PPS, with the lab report included, to the Permit Branch of the Water Division within 30 days after the first discharge from Outfall 001 occurs.

## **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; or
- B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- 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 APCEC 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 APCEC 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 APCEC 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 such as endangered species, state or local statute, ordinance or regulation.

## **11. Permit Fees**

The permittee shall comply with all applicable permit fee requirements for wastewater discharge permits as described in APCEC 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 APCEC Regulation No. 6 and the provisions of APCEC 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**

#### **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; and
  - (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; and
  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

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. Written approval must be obtained from the ADEQ prior to removal of substances. Additionally, the permittee shall give at least 120 days prior notice to the Director of any change planned in the permittee's sludge disposal practice or land use applications, including types of crops grown (if applicable). Produced sludge shall be disposed of by land application only when meeting the following criteria:

- A. Sewage sludge from treatment works treating domestic sewage (TWTDS) must meet the applicable provisions of 40 CFR Part 503; and
- B. The sewage sludge has not been classified as a hazardous waste under state or federal regulations.

## 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**

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form provided by the Department or other form/method approved in writing by the Department (e.g., electronic submittal of DMR once approved). Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR form postmarked no later than the 25<sup>th</sup> day of the month or submitted electronically by 6:00 p.m. of the 25<sup>th</sup> (after NETDMR is approved), following the completed reporting period beginning on the effective date of the permit. When mailing the DMRs, duplicate copies of the forms signed and certified as required by Part III.D.11 and all other reports required by Part III.D, shall be submitted to the Director at the following address:

Enforcement Branch  
Water Division  
Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

If permittee uses outside laboratory facilities for sampling and/or analysis, the name and address of the contract laboratory shall be included on the DMR.

## **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 individuals(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; and
- 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, and
- 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 within 180 days and provide plans and specification (if applicable) to the Director for review and approval prior to any planned physical alterations or additions to the permitted facility. In no case are any new connections, increased flows, removal of substances, or significant changes in influent quality permitted that cause violation of the effluent limitations specified herein.

### **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; and
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 and
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 Water Division 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 Water Division 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 permittee shall notify the Director as soon as he/she 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); or
- 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 APCEC 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; 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.
2. For a partnership or sole proprietorship: by a general partner or proprietor, respectively; or
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, 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:

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); and
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 APCEC 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. 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 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. **“APCEC”** 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 (APCEC) Regulation No. 2, as amended.
6. **“Bypass”** As defined at 122.41(m).
7. **“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.
8. **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.
9. **Daily Maximum”** discharge limitation means the highest allowable “daily discharge” during the calendar month. The 7-day average for Fecal Coliform Bacteria (FCB) or E-Coli is the geometric mean of the values of all effluent samples collected during the calendar week in colonies per 100 ml.
10. **“Department”** means the Arkansas Department of Environmental Quality (**ADEQ**).
11. **“Director”** means the Director of the Arkansas Department of Environmental Quality.
12. **“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.

13. **“E-Coli”** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For E-Coli, report the monthly average as a 30-day geometric mean in colonies per 100 ml.
14. **“Fecal Coliform Bacteria (FCB)”**a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For Fecal Coliform Bacteria (FCB) report the monthly average as a 30-day geometric mean in colonies per 100 ml.
15. **“Grab sample”** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
16. **“Industrial User”** means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
17. **“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.
18. **“Instantaneous Minimum”** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
19. **“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.
20. **“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.
21. **“POTW”** means a Publicly Owned Treatment Works.
22. **“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.
23. **“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.
24. **“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.
25. **“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.
26. **“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 carelessness of improper operations.

27. **“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.
28. **“MGD”** shall mean million gallons per day.
29. **“mg/l”** shall mean milligrams per liter or parts per million (ppm).
30. **“µg/l”** shall mean micrograms per liter or parts per billion (ppb).
31. **“cfs”** shall mean cubic feet per second.
32. **“ppm”** shall mean parts per million.
33. **“s.u.”** shall mean standard units.
34. **“Weekday”** means Monday – Friday.
35. **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 25<sup>th</sup> 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 25<sup>th</sup> 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; or
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.

## **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 final 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 applicant's mailing and facility address is:

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

### **3. PREPARED BY.**

The permit was prepared by:

Shane Byrum  
Staff Engineer  
Discharge Permits Section, Water Division  
(501) 682-0618  
E-mail: byrum@adeq.state.ar.us

### **4. PERMIT ACTIVITY.**

Previous Permit Effective Date:	12/01/2006
Previous Permit Modification Date:	09/01/2008
Previous Permit Expiration Date:	11/30/2011

The permittee submitted a permit renewal application on 5/27/2011. The discharge permit is being reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a). The monitoring requirements and limits at Internal Outfalls 03A and 03B are being removed with this permit renewal. The permit writer determined that permit limits on the discharges from both of these internal outfalls is not necessary because these wastestreams receive additional treatment in the process water pond prior to being ultimately



discharged to Waters of the State at Outfall 003. Since the effluent limits on the Internal Outfall 03B were removed, water quality-based limits for BOD5 and Dissolved Oxygen were added at Outfall 003 since the process water pond receives the treated domestic wastewater previously monitored at Internal Outfall 03B.

### DOCUMENT ABBREVIATIONS

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

BAT - best available technology economically achievable  
BCT - best conventional pollutant control technology  
BMP - best management practice  
BOD<sub>5</sub> - five-day biochemical oxygen demand  
BPJ - best professional judgment  
BPT - best practicable control technology currently available  
CBOD<sub>5</sub> - 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  
NH<sub>3</sub>-N - ammonia nitrogen  
NO<sub>3</sub> + NO<sub>2</sub>-N - nitrate + nitrite nitrogen  
NPDES - National Pollutant Discharge Elimination System  
O&G - oil and grease  
Reg. 2 - APCEC Regulation No. 2  
Reg. 6 - APCEC Regulation No. 6  
Reg. 8 - APCEC Regulation No. 8  
Reg. 9 - APCEC 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  
WET - Whole effluent toxicity  
WQMP - water quality management plan  
WQS - Water Quality standards  
WWTP - wastewater treatment plant

DMR Review:

The Discharge Monitoring Reports (DMR's) for the last three years (May 2008 to May 2011) were reviewed during the permit renewal process. There were no violations reported at Outfalls 001, 002, 003, or Internal 03A. There were violations reported in 10 reporting months for Internal Outfall 03B. Both internal outfalls are being removed from the permit because the permit writer determined that monitoring and reporting at the internal locations are not needed because both of these internal wastestreams receive additional treatment in the process water pond prior to being ultimately discharged at Outfall 003.

Legal Order Review:

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

Site Visits/Inspections

A site visit was performed on 10/12/2011. All outfalls were observed and coordinates were taken with a GPS unit. During the site visit there was no discharge occurring from Outfalls 001, 002, or 003. A stormwater outfall (SW-2) at the active mining operation was identified during the visit that is not presently covered under the industrial general stormwater permit. The facility was instructed to apply for coverage of SW-2 under the IGP.

**5. FINANCIAL ASSURANCE**

Financial Assurance is not required since the permittee does not operate a "non-municipal domestic sewage treatment works" as defined in Arkansas Code § 8-4-203(b).

**6. 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. Internal Outfalls 03A and 03B were removed from the permit. The permit writer determined that monitoring and reporting at the internal locations are not needed because both of these internal wastestreams receive additional treatment in the process water pond prior to being ultimately discharged at Outfall 003.

2. BOD5 and DO limits were added to Outfall 003 since Internal Outfall 03B (treated domestic wastewater) was removed from the permit.
3. Requirement to conduct a priority pollutant scan at Outfall 001 at the first discharge after the effective date of the permit was added because a PPS was not submitted with the May 2011 renewal application due to no discharge occurring from this outfall since May 2010.
4. Requirement to sample for Total Recoverable Copper at Outfall 002 at the first discharge after the effective date of the permit was added due to the copper test results submitted with the application not meeting the required test method MQL.
5. Flow sample type at Outfalls 001 and 002 were changed from “instantaneous” to “calculated” since the permittee does not utilize any type of weir or meter to determine flow rate at these outfalls.
6. Facility and outfall latitude/longitude coordinates were revised to more accurate values.

**7. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION.**

The outfalls are located at the following coordinates based on a handheld Garmin GPS unit measured on an October 12, 2011 site visit:

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 are described as follows:

unnamed tributary of French Creek, 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.

**8. 316(B) REQUIREMENTS FOR COOLING WATER INTAKE STRUCTURE**

The facility withdraws water used for cooling purposes from its waste treatment ponds known as the “blue hole pond” and “process water pond”. These waste treatment ponds were constructed and designed for treatment of wastewater generated at the facility and stormwater runoff prior to discharging to Waters of the United States via the permitted outfall. Cooling water intake structure (CWIS) is defined in 40 CFR Part 122, Subpart J as “the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the United States”. Furthermore, 40 CFR 122.22 states that waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act are not considered waters of the United States. Thus, Section 316(b) requirements for cooling water intake structures are not applicable to this facility’s cooling water intakes since the cooling water is not withdrawn from waters of the United States.

**9. 303(d) LIST, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS.**

**A. 303(d) List:**

The receiving stream is not listed on the 2008 303(d) list. Therefore no permit action is needed.

**B. Endangered Species:**

No comments on the application were received from the U.S. Fish and Wildlife Service (USF&WS). The draft permit and Statement of Basis were also sent to the USF&WS for their review and no comments were received.

**C. Anti-Degradation:**

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

**10. OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION.**

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

**A. Highest Monthly Average Flow during past 2 years:**

Outfall 001: 0.115 MGD  
Outfall 002: 0.14 MGD  
Outfall 003: 0.83 MGD

**B. Type of Treatment:**

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

**C. Discharge Description:**

Outfall 001: discharge from the Fishing Lake consisting of active quarry dewatering and stormwater runoff.  
Outfall 002: discharge from the Coal Pile Sedimentation Pond consisting of stormwater runoff from the coal storage area and closed CKD landfill.  
Outfall 003: discharge from the process water pond consisting of the following sources: stormwater runoff from coal processing area, truck washout water, sanitary wastewater treatment lagoon effluent, lab/office building sanitary package

plant effluent, non-contact cooling water, process area washdown water, stormwater runoff from closed Cement Kiln Dust landfill, and active CKD landfill leachate and runoff discharged from a 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 (35) 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.

#### **11. ACTIVITY.**

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

#### **12. SEWAGE SLUDGE PRACTICES.**

Sewage sludge generated from the domestic wastewater treatment unit is hauled off and disposed of in the Upper Southwest Regional landfill under solid waste permit No. 0265-S1-R1.

#### **13. PERMIT CONDITIONS.**

The Arkansas Department of Environmental Quality has made a determination to issue a final permit for the discharge described in the application. Permit requirements are based on federal regulations (40 CFR Parts 122, 124, and Subchapter N), the National Pretreatment Regulation in 40 CFR Part 403 and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. 8-4-101 et. seq.).

**A. Effluent Limitations**

Outfall 001- discharge from Fishing Lake (active quarry dewatering and stormwater runoff)

**1. Conventional and/or Toxic Pollutants**

<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 <sup>1</sup>	calculated <sup>2</sup>
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	grab

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

2 Flow is calculated using bucket and stopwatch method.

**2. Solids, Foam, and Free Oil:** There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen due to the presence of oil (Sheen means an iridescent appearance on the surface of the water).

**B. Effluent Limitations**

Outfall 002 - discharge from the coal pile sedimentation pond (stormwater runoff from the coal storage area and closed CKD landfill).

**1. Conventional and/or Toxic Pollutants**

<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 <sup>1</sup>	calculated <sup>2</sup>
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	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.

**2. Solids, Foam, and Free Oil:** There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen due to the presence of oil (Sheen means an iridescent appearance on the surface of the water).

**C. Effluent Limitations**

OUTFALL 003 – discharge from the process water pond consisting of the following sources: stormwater runoff from coal processing area, truck washout water, sanitary wastewater treatment lagoon effluent, lab/office building sanitary package plant effluent, non-contact cooling water, process area washdown water, stormwater runoff from closed Cement Kiln Dust landfill, and active CKD landfill leachate and runoff discharged from a sedimentation pond.

**1. Conventional and/or Toxic Pollutants**

<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 <sup>1</sup>	instantaneous <sup>2</sup>
Biochemical Oxygen Demand (BOD5)	N/A	N/A	10	15	once/month <sup>1</sup>	grab
Total Suspended Solids (TSS)	N/A	N/A	N/A	50	once/month <sup>1</sup>	grab
Dissolved Oxygen (DO)						
(May-October)	N/A	N/A	2.0 (Instantaneous Min.)		once/month <sup>1</sup>	grab
(November-April)	N/A	N/A	5.0 (Instantaneous Min.)		once/month <sup>1</sup>	grab
Fecal Coliform Bacteria (FCB)			(colonies/100ml)			
	N/A	N/A	1000	2000	once/month <sup>1</sup>	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	once/month <sup>1</sup>	grab

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

2 Flow is determined using a rectangular weir.

**2. Solids, Foam, and Free Oil:** There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen due to the presence of oil (Sheen means an iridescent appearance on the surface of the water).



**14. BASIS FOR PERMIT CONDITIONS.**

The following is an explanation of the derivation of the conditions of the final 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 final 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								
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 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								
BOD5	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-Oct)	2.0 (Inst. Min.)		N/A		Report (Inst. Min.)		2.0 (Inst. Min.)	
DO (Nov-Apr)	5.0 (Inst. Min.)		N/A		Report (Inst. Min.)		5.0 (Inst. Min.)	
FCB (col/100ml)	1000	2000	N/A	N/A	1000	2000	1000	2000
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
<b>Outfall 001</b>		
TSS	Technology	40 CFR 411.32(a)
pH	Technology	40 CFR 411.32(a)
<b>Outfall 002</b>		
TSS	Technology	40 CFR 411.32(a)
pH	Technology	40 CFR 411.32(a)
<b>Outfall 003</b>		
BOD5	Water Quality	MultiSMP Model dated 10/24/2011
TSS	Technology	40 CFR 411.32(a)
DO	Water Quality	MultiSMP Model dated 10/24/2011 and Reg. 2.505
FCB	Water Quality	Reg. 2.507
pH	Technology	40 CFR 411.32(a)

**B. Anti-backsliding**

The final 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 40 CFR 122.44 (l)(2)(i).

The limits at Outfalls 001, 002, and 003 are as stringent as those in the previous permit. The removal of the limits and monitoring requirements at internal outfalls 03A and 03B is not considered backsliding since the previous internal outfall limits were applied prior to the final treatment (process water pond) and the discharge from the process water pond (Outfall 003) already includes the same technology-based limits as the previous internal outfall 03A. The removal of limits at internal outfall 03B is justified since this treated domestic wastewater undergoes additional treatment in the process water pond prior to being discharged at Outfall 003, and water-quality based BOD5, FCB, and DO limits are included at Outfall 003 to regulate the quality of this internal domestic wastestream after final treatment in the process water pond.

**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.

Since the discharge from all outfalls is highly dependent on rainfall and the magnitude of storm events, the permit does not contain any mass limits.

## 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.

## 3. 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.

In 2010 the facility replaced the three “wet process” kilns with one “preheater/precalciner kiln system” also called a “pyroprocessing” system, which uses a “dry process” to produce cement clinker. Operation of this new system started in March 2010. The only aqueous wastestream associated with this new dry cement manufacturing process is non-contact cooling water. Based on an email dated 4/26/2012 from Jezebele Alicea, the designated contact for the cement manufacturing effluent limitation guideline, 40 CFR Part 411, Subpart A is not applicable to the non-contact cooling water wastestream at this facility.

## 4. Stormwater Runoff

All stormwater runoff at this facility is discharged through either Outfall 001, 002, or 003, with the exception of one potential stormwater outfall (SW-2) located near the southeast corner of the facility property line in the active mining area. This stormwater outfall is currently not permitted. During the site visit, it was recommended that the facility apply for a stormwater industrial general permit (IGP) for outfall SW-2 to provide coverage of this stormwater discharge until such time as the mining activities reach a point where the stormwater flows back to the quarry pit.

**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 revised to include a monthly average BOD5 limit of 10 mg/l at Outfall 003, and instantaneous minimum Dissolved Oxygen limitations at Outfall 003 of 2.0 mg/l during May through October and 5.0 mg/l during November through April.

**E. 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).

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
Flow = Q	<u>Outfall 002</u> 0.14 MGD = 0.22 cfs <u>Outfall 003</u> 0.83 MGD = 1.28 cfs	Reported DMR data from May 2009 to May 2011.
7Q10	0 cfs	U.S.G.S.
TSS	5.5 mg/l	CPP
Hardness as CaCo3	31 mg/l	CPP
pH	7.9 s.u.	Average of pH values reported for Outfall 003 from May 2009 to May 2011.

The following pollutants were reported:

Pollutant	Concentration Reported, µg/l	MQL, µg/l
Outfall 002		
Copper	< 20**	0.5
Nickel	< 10***	0.5
Mercury	0.00168	0.005
Outfall 003		
Copper	0.69	0.5
Nickel	0.72	0.5
Lead	0.55	0.5
Mercury	0.00266	0.005

ADEQ has determined from the submitted information that the discharge does not pose the reasonable potential to cause or contribute to an exceedance above a water quality standard.

- \* Since the facility has not had a discharge from Outfall 001 since May 2010, a priority pollutant scan was not available to analyze during the preparation of this renewed permit. Therefore, this permit contains a condition requiring a PPS to be performed and the results reported on the first discharge from Outfall 001.
- \*\* The PPS results performed at Outfall 002 reported a copper result of < 20 ug/l. However, the required MQL is 0.5 ug/l. An assumed copper value of 20 ug/l shows reasonable potential to violate water quality standards. However, the permit writer does not believe a copper limit is necessary based solely on the shortcomings of the test method used, therefore, the permit requires a copper sample to be collected at the first discharge from Outfall 002 using the required MQL to determine if copper is present in the effluent at levels that show reasonable potential to cause or contribute to an exceedance above a water quality standard.
- \*\*\*The PPS results performed at Outfall 002 reported a nickel result of < 10 ug/l. The required MQL is 0.5 ug/l. However, a concentration of 10 ug/l does not show reasonable potential to cause or contribute to an exceedance above a water quality standard.

## 15. 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. The sampling frequency for the added parameter of BOD5 at outfall 003 was set at once/month to be consistent with the required frequency for the other parameters monitored at this outfall.

Parameter	Previous Permit		Draft Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
<b>Outfall 001</b>				
Flow	once/month	instantaneous	once/month	calculated
TSS	once/month	grab	once/month	grab
pH	once/month	grab	once/month	grab
<b>Outfall 002</b>				
Flow	once/month	instantaneous	once/month	calculated
TSS	once/month	grab	once/month	grab
pH	once/month	grab	once/month	grab
<b>Outfall 003</b>				
Flow	once/month	instantaneous	once/month	instantaneous
TSS	once/month	grab	once/month	grab
BOD5	n/a	n/a	once/month	grab
DO	once/month	grab	once/month	grab
FCB	once/month	grab	once/month	grab
pH	once/month	grab	once/month	grab

## 16. PERMIT COMPLIANCE.

A Schedule of Compliance has not been included in this permit. Compliance with all permit requirements is required on the effective date of the permit.

## 17. 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.

## 18. SOURCES.

The following sources were used to draft the permit:

- A. Application No. AR0042846 received 5/27/2011.
- B. APCEC Regulation No. 2.
- C. APCEC Regulation No. 3.
- D. APCEC Regulation No. 6.
- E. 40 CFR Parts 122, 125, and 411.
- F. Discharge permit file AR0042846.
- G. Discharge Monitoring Reports (DMRs).
- H. "Arkansas Water Quality Inventory Report 2008 (305B)", ADEQ.
- I. "Identification and Classification of Perennial Streams of Arkansas", Arkansas Geological Commission.
- J. Continuing Planning Process (CPP).
- K. Technical Support Document For Water Quality-based Toxic Control.
- L. U.S. EPA NPDES Permit Writer's Manual, September 2010.
- M. Monthly cement production amounts from January 2008 to September 2011.
- N. Site visit on 10/5/2011.
- O. MultiSMP desktop model dated 10/24/2011.
- P. Email letter dated 3/12/2012 from EPA to ADEQ containing comments on preliminary draft permit.
- Q. Email letter dated 3/15/2012 from EPA to ADEQ declining full review of draft permit.
- R. Comments received on the draft permit from Ash Grove Cement to ADEQ in a letter dated 4/20/2012.
- S. Email dated 4/26/2012 from Jezebele Alicea, EPA to Shane Byrum, ADEQ concerning the applicability of 40 CFR Part 411, Subpart A to this facility.

## 19. POINT OF CONTACT.

For additional information, contact:

Shane Byrum  
Permits Branch, Water Division  
Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317  
Telephone: (501) 682-0618

**RESPONSE TO COMMENTS  
FINAL PERMITTING DECISION**

Response to comments received on the subject draft permit in accordance with regulations promulgated at 40 CFR Part 124.17 are as follows:

Permit No.: AR0042846

Applicant: Ash Grove Cement Company

Prepared by: Shane Byrum

Public Notice Date: The draft permit was publicly noticed on or about 3/21/2012.

The following comments have been received on the draft permit:

Letter from Carey Austell, Ash Grove Cement to Shane Byrum, ADEQ dated 4/20/2012.

ISSUE #1

Ash Grove Cement (AGC) commented that the permit and Statement of Basis contain the wastewater source “Chalk Dryer Wet Scrubber Discharge” for Outfall 003. AGC stated that this source of wastewater was removed when the new dry cement production process was installed, therefore this source of wastewater should be removed from the list of wastewater sources in the permit and Statement of Basis for Outfall 003.

RESPONSE #1

The chalk dryer wet scrubber will be removed from the list of wastewater sources in the permit and Statement of Basis for Outfall 003 since it is no longer in service and therefore, not a wastewater source.

ISSUE #2

AGC commented that “truck washout water” is listed as a wastewater source for Outfall 003, but this wastewater is generated at the maintenance shed area where it goes through a settling pit and oil/water separator before being discharged to the “Blue Hole” pond. AGC commented that this source of wastewater should be removed from the description of wastewater sources for Outfall 003 in the permit and Statement of Basis.

RESPONSE #2

According to the revised flow diagram submitted with the comment, the truck wash water is routed to the “Blue Hole” pond and this pond is subsequently discharged to the “Process Water Pond” associated with Outfall 003. Since the truck wash water is eventually discharged through Outfall 003, ADEQ will keep it listed as a wastewater source for Outfall 003 to reflect the final disposition of this wastewater. This is consistent with the listing of “stormwater runoff from coal



processing area” as a wastewater source at Outfall 003, in which this water is initially routed to a coal washout pond prior to discharging to the process water pond. The list of wastewater sources at Outfall 003 reflect the sources that are eventually discharged to the process water pond which then discharges at Outfall 003. Consequently, some of the wastewater sources listed in the permit for Outfall 003 receive treatment in other ponds prior to discharge to the process water pond.

### ISSUE #3

For the first time, the permit contains TSS and Temperature Rise limitations at Outfall 003 based on 40 CFR Part 411, Subpart A. Subpart A of Part 411 is for non-leaching cement manufacturing processes (dry process). AGC submitted comments concerning the applicability of Subpart A to this facility. Subpart A contains production based effluent limitations for TSS expressed as 0.005 lbs of TSS per 1000 lbs of product. In addition, Subpart A contains a limitation on temperature rise from the intake to the discharge of no greater than 3 ° C.

AGC stated that this facility has not been subject to 40 CFR Part 411, Subpart A in past permits. AGC stated that the vast majority of the water balance deals with runoff from material storage piles for which only 40 CFR Part 411 Subpart C is applicable. AGC stated that they have recently replaced the old “wet” cement manufacturing process with a “dry” process and that the only aqueous wastestream associated with this new process is non-contact cooling water which is recirculated through the process water pond. AGC stated that since the cooling water is recirculated and does not come into contact with the process material, it is not picking up contaminants, i.e. TSS, that are being released to the environment as contemplated in the ELG.

AGC goes on to state that they have no capability to control the discharge from Outfall 003 following a precipitation event, therefore even with low TSS concentrations, there is no way to control the mass of TSS discharged because since the majority of discharge from the process water pond at Outfall 003 is from stormwater runoff from material storage piles. AGC also stated that since the only aqueous wastestream being discharged through Outfall 003 associated with the cement manufacturing process is non-contact recirculated cooling water, AGC believes that it complies with the intent of the ELG which requires no discharge of process generated wastewater into navigable waters, and that the only applicable requirement is 40 CFR 411, Subpart C, Materials Storage Piles Runoff Subcategory.

Finally, AGC states that the amount of TSS discharged from Outfall 003 is not related to production rates since the only operation possibly subject to Subpart A is the recirculation of non-contact cooling water to and from the process water pond used for the purpose of cooling various equipment in the cement mills.

For the above stated reasons, AGC does not believe that Subpart A is applicable to this facility and requested that the TSS and Temperature Rise limitations be removed from the permit at Outfall 003.

RESPONSE #3

ADEQ has consulted with the EPA designated contact for this effluent limitation guideline concerning the applicability of 40 CFR Part 411, Subpart A to this facility. According to an email dated 4/26/2012 from Jezebele Alicea, Environmental Engineer in the Technology and Statistics Branch of EPA headquarters in Washington, 40 CFR 411 Subpart A does not apply to the non-contact cooling water wastestream at this facility and that Subpart A of Part 411 only applies to process wastewaters that are in direct contact with raw materials, manufacturing, or cleaning processes.

Based on this determination by EPA, the TSS production-based mass limits and temperature rise limits that were included in the draft permit at Outfall 003 will be removed in the final permit since the only wastestream generated that is associated with the cement manufacturing process at this facility is non-contact cooling water. Therefore, the only subcategory that applies to this facility is 40 CFR Part 411, Subpart C - Materials Storage Piles Runoff Subcategory.

ADEQ has added the 4/26/2012 email from EPA to the list of sources in Section 18 of the Statement of Basis, and has revised Section 14.C.3 of the Statement of Basis to indicate that only 40 CFR Part 411, Subpart C is applicable to this facility.

