FACT SHEET
AND SUPPLEMENTARY INFORMATION
FOR GENERAL PERMIT
DISCHARGES FROM AGGREGATE FACILITIES
LOCATED WITHIN THE STATE OF ARKANSAS

Information in this part is organized as follows:

1. Background
2. Summary of Major Changes from Previous Permit
3. Justification for Changes to the Permit
4. Anti-backsliding
5. Rationale for Effluent Limitations and Standards
6. Area and Covered Facilities
7. Time Frame for Submitting an NOI
8. Information Required for the NOI
9. Facilities Excluded from Coverage
10. Continuation of Permit Coverage
11. Standard Conditions
12. Monitoring and Reporting Requirements
13. Permit Expiration
14. 303(d) List Waters and TMDL
15. Public Notice
16. Economic Impact
17. Contact Information
18. Sources

1. Background

The previous permit became effective on February 1, 2011 and expires on January 31, 2016 and this is a renewal permit.

The State of Arkansas has been authorized by the U. S. Environmental Protection Agency to administer the National Pollutant Discharge Elimination System (NPDES) Program in Arkansas, including the issuance of general permits to categories of dischargers under the provisions of 40 CFR 122.28, as adopted by reference in Arkansas Pollution Control and Ecology Commission (APC&EC) Regulation No. 6.104. Under this authority, ADEQ may issue a single general permit to a category of point sources located within the same geographic area whose discharges warrant similar pollution control measures. Specifically, in accordance with 40 CFR 122.28, the ADEQ is authorized to issue a general NPDES permit if there are a number of point sources operating in a geographic area that:

1.1. involve the same or substantially similar types of operations;
1.2. discharge the same types of wastes;
1.3. require the same effluent limitations or operating conditions;
1.4. require the same or similar monitoring requirements; and
1.5. in the opinion of the Director, are more appropriately controlled under a general permit than under individual permits.

The violation of any condition of a general permit constitutes a violation of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.) and may subject the discharger to penalties and revocation of coverage under the general permit. Upon issuance of the final general permit for this type of
discharge, operators that are considered qualified for coverage under this general permit must submit a written notice of intent to the Director for coverage under the general permit.

The 2016 Aggregate Facility Discharge General Permit, ARG500000, is required by Arkansas law to be issued 180 days prior to the expiration date of the 2011 General Permit.

Therefore, existing permittees will have 180 days from the effective date, to apply for coverage. The Department believes that the 180 day period prior to the effective date will give permittees enough time to become familiar with new requirements in order to comply with the 2016 General Permit.

2. **Summary of Major Changes from Previous Permit**

2.1 Inclusion of state construction permit requirements in this General Permit (Part 1.2.4.1) consistent with Regulation No. 6.202. This is to reduce the number of permits issued to new facilities.

2.2 Existing dischargers must submit an NOI and all necessary information stated in Part 1.2.6 of the Permit no later than the effective date of the renewal general permit (Part 1.2.12.1). (See 3.1 below)

2.3 All monthly Discharge Monitoring Reports (DMRs) are now required to be submitted once per quarter by the last day of the month following each quarter (i.e. April 30th, July 31st, October 31st, and January 31st) as permitted by 40 CFR 122.44(i)(2). The goal is to mitigate the reporting requirements of the permittee without reducing the effectiveness of the permit.

2.4 Turned the “Specialty Note” from Section 2.3 into condition 2.3.8. (See 3.2 below)

2.5 Added section 1.2.12.3 regarding a 90 day submission requirement for new applications with construction. (See 3.3 below)

2.6 Moved the exclusion of facilities adding chemicals (section 1.3.8 of the previous permit) to section 1.2.2.3. The use of chemicals does not exclude a facility from coverage if they can meet the additional requirements.

2.7 Added Section 1.3.9 clarifying that outfalls that only discharge stormwater are not covered by the permit and must be covered by a Stormwater Industrial General Permit (ARR000000).

2.8 Added a note in Section 1.2.1.1 excluding all other Subparts from 40 CFR 436, other than those listed, for clarification.

2.9 Listed approved Subparts from 40 CFR 436 in Section 2.2 for clarification.

2.10 Change deadline for notification of renewal in conditions 1.2.10.1 and 6.8.1 from 120 days after the effective date of the renewal permit to prior to the effective date of the renewal permit to prevent lapse of permit coverage.

2.11 Modified definition of “When Discharging” for clarification on sampling procedures in Part 7.

2.12 Clarified the language at the bottom of Section 2.2 regarding sampling procedures.

2.13 Redefined footnote 3 in Section 2.2 regarding Monitoring Requirements.

2.14 Added a requirement to report Total Dissolved Solids (TDS) monthly in Section 2.2. (See 3.4 below)
3. Justification for Changes to the Permit

3.1 The 2016 Aggregate Facility Discharge General Permit, ARG500000, is required by Arkansas law to be issued 180 days prior to the expiration date of the 2011 Aggregate Facility Discharge General Permit. Therefore, existing permittees will be notified 180 days prior to the effective date to apply for coverage, and the permittee must notify the Department of his/her intent to be covered under the new permit no later than the effective date consistent with Part 6.8 of the permit. The Department believes that the 180 day period prior to the effective date will give permittees enough time to become familiar with new requirements in order to comply with the 2016 Aggregate Facility Discharge General Permit.

3.2 Wet weather and groundwater seepage overflows from sand and gravel dredging operations are subject to federal effluent limitation guidelines for “mine dewatering”. Additionally, any discharge of water caused by the mine operator from a dredge pit is also subject to federal effluent limitation guidelines for mine dewatering. All surface discharges from a dredge pit must be monitored in accordance with its outfall type.

3.3 It has been decided to issue a single Notice of Coverage (NOC) for new facilities that are constructing a process pond in addition to obtaining the Aggregate Facility Discharge General Permit. This NOC will contain language requiring a notification that the ponds were built per requirements before discharging. Currently, NPDES State Construction permits are given a 90 day review period. Therefore, the department will require the NOI to be received 90 days prior to the start of construction.

3.4 A reporting requirement for TDS has been added to evaluate the potential contribution of dissolved solids from mining operations. According to EPA’s Industrial Stormwater Fact Sheet Series, Mineral Mining and Processing Facilities (Sector J) involves multiple activities with the potential of producing TDS (e.g. site preparation, mineral processing, reclamation, et. al.).

4. Anti-backsliding

Effluent limits, monitoring requirements, and monitoring frequencies for flow, TSS, O&G, and pH in Part 2 of the permit are continued from the current permit based on EPA anti-backsliding regulations [40 CFR 122.44(l)]. In addition, the footnotes in Part 2 have not been changed.

This 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).

5. Rationale for Effluent Limitations and Standards

Section 301(a) of the CWA, 33 USC § 1311(a), prohibits the discharge of pollutants to waters of the U.S. unless the discharge is authorized pursuant to an NPDES permit. Section 402 of the CWA, 33 USC § 1342, authorizes the EPA, or an approved state NPDES program, to issue an NPDES permit authorizing discharges subject to limitations and requirements imposed pursuant to CWA Sections 301, 304, 306, 401 and 403, 33 USC §§ 1311, 1314, 1316, 1341 and 1343.

In general, the CWA requires that the limits for a particular pollutant be the more stringent of either technology-based effluent limits (TBELs) or water quality-based effluent limits (WQBELs). TBELs are set according to the level of treatment that is achievable using available technology. WQBELs are designed to ensure that the state adopted, EPA approved, WQS of a waterbody are being met and they may be more stringent than TBELs.
EPA first determines which TBELs apply to a discharge in accordance with applicable national effluent limitation guidelines (ELGs) and standards. EPA further determines which WQBELs apply to a discharge based upon an assessment of the pollutants discharged and a review of state WQS. Monitoring requirements must also be included in the permit to determine compliance with effluent limitations. Effluent and ambient monitoring may also be required.

Section 301(b) of the CWA, 33 USC § 1311(b), requires technology-based controls on effluents. All NPDES permits must contain effluent limitations which: (a) control toxic pollutants and nonconventional pollutants through the use of “best available technology economically achievable” (BAT), and (b) control conventional pollutants through the use of “best conventional pollutant control technology” (BCT). In no case may BAT or BCT be less stringent than the “best practical control technology currently achievable” (BPT), which is the minimum level of control required by Section 301(b)(1)(A) of the CWA, 33 USC § 1311(b)(1)(A).

The intent of a technology-based effluent limitation (TBEL) is to require a minimum level of treatment for industrial point sources based on currently available treatment technologies while allowing a discharger to choose and use any available control technique to meet the limitations. Accordingly, every individual member of a discharge class or category is required to operate their water pollution control technologies according to industry-wide standards and accepted engineering practices.

TBELs are based on best professional judgment (BPJ) when national EPA effluent limitation guidelines (ELGs) have not been issued [40 CFR 125.3(a)(v)(B)]. ELGs have not yet been developed by the EPA for Aggregate Facility dischargers or substantially similar activities. During the development of this Draft permit, ADEQ conducted a review to determine whether the TBELs from the 2011 Permit were still appropriate. Based on the ADEQ’s review, and as provided in Section 402(a)(1) of the CWA, the ADEQ proposes to retain, or adjust as necessary due to a change in basis, the TBELs from the 2011 Permit.

Conditions in Parts 2 through 4 are incorporated in the permit based on 40 CFR 122.41, 40 CFR 122.43, 40 CFR 122.62, 40 CFR 124.5, 40 CFR 136, 40 CFR 122.44(d), 40 CFR 122.44(l), Appendix D of the Continuing Planning Process (CPP), APC&EC Regulation No. 2, and APC&EC Regulation No. 3 in order to provide and ensure compliance with all applicable requirements of the CWA and regulations. Discharges from the following aggregate facility activities are authorized by this permit:

- Process water from washing of rock or sand (without detergents) and
- Mine dewatering water

The above types of wastewater may be discharged through Outfall Type 101 are subject to limits in combination with stormwater from industrial mine operations. Discharges of industrial stormwater only are not authorized to discharge through this outfall type and must obtain alternate permit coverage.

Outfall Type 101: Subject to the requirements of 40 CFR 436, the effluent limitations below are applicable to the discharge from process water ponds at aggregate facilities under 40 CFR 436 as follows:

<table>
<thead>
<tr>
<th>Dimension Stone-Subpart A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushed and Broken Limestone-Subpart B</td>
</tr>
<tr>
<td>Crushed and Broken Granite-Subpart B</td>
</tr>
<tr>
<td>Crushed and Broken Stone-Subpart B</td>
</tr>
<tr>
<td>Construction Sand and Gravel-Subpart C</td>
</tr>
</tbody>
</table>

### Monitoring Requirements

<table>
<thead>
<tr>
<th>Effluent Characteristics</th>
<th>Monitoring Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Concentration (mg/l, unless otherwise specified)</td>
</tr>
<tr>
<td>Monthly Avg.</td>
<td>Daily Max</td>
</tr>
</tbody>
</table>
5.1 Concentration Limits (Monthly average and daily max):

The federal NPDES regulation found at 40 CFR 122.45(d)(1) requires that effluent limitations for continuous dischargers be expressed, unless impracticable, as both maximum daily limit (MDL) and average monthly limit (AML) values. In accordance with 40 CFR 122.2, “continuous discharge” means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities. The Draft permit includes both AMLs and MDLs for continuous discharges. A discharge which occurs continuously during certain months of the year is considered a seasonal continuous discharge, and as such, both AML and MDLs are required. Using the procedures in the Technical Support Document for Water Quality-based Toxics Control, [TSD (EPA-505-2-90-001, March 1991)], Section 5.4.2 [“… permit writer typically divide, the MDL by 1.5 or 2.0 to drive an AML …”], the average monthly limits for the pollutants have been derived as follows:

\[ \text{MDL} / 1.5 = \text{AML} \]

**TSS:**
Solids are considered a “conventional pollutant” (as opposed to toxic). Suspended materials in water can cause turbidity, discoloration, interruption of light passage for aquatic growth, coating of fish gills, and sedimentation on stream bottoms interfering with egg laying and feeding. ADEQ has determined that control of TSS in the waste streams from the dischargers covered by the general permit should be required, especially discharges from any sites involving construction or disruption of soils or sediments. A monthly average effluent limit of 35.0 mg/l for Outfall Type 101 is continued from the previously issued permit. This limitation is judged to represent the level of treatment attainable through the application of the best conventional pollutant control technology (BCT). Rainfall on barren soil could cause suspended solids to enter the pond. The wet washing and sorting processes also have the potential to add TSS to the effluent. The TSS limit is included to protect the water quality of the receiving stream.

**Effluent Limits for TSS – For All Receiving Waters**
- AML = 35 mg/L
- MDL = 53 mg/L

**Oil and Grease:**
The water quality-based limit for Oil and Grease has been based on the Arkansas Water Quality Standards (AWQS), Regulation No. 2, Section 2.510. This limitation is judged to represent the level of treatment attainable through the application of the best conventional pollutant control technology (BCT). Measurement of Oil and Grease helps to ensure that the receiving stream and its intended uses are protected. This has been carried forward from the previous permit for Outfall Type 101.

**Effluent Limits for Oil and Grease – For All Receiving Waters**
- AML = 10 mg/L
- MDL = 15 mg/L
**pH:**
The water quality-based limits for pH have been based on the Arkansas Water Quality Standards (AWQS), Regulation No. 2, Section 2.504. Additionally, this same pH limitation is found in 40 CFR 436.22 for the crushed stone subcategory covering process water and mine dewatering, 40 CFR 436.32 for the construction sand and gravel subcategory for process wastewater and mine dewatering discharges and 40 CFR 436.42 for industrial sand process wastewater and mine dewatering discharges. This limit has been carried forward from the previous permit for Outfall Type 101.

**TDS:**
A reporting requirement for TDS has been added to evaluate the potential contribution of dissolved solids from mining operations. According to EPA’s Industrial Stormwater Fact Sheet Series, Mineral Mining and Processing Facilities (Sector J) involves multiple activities with the potential of producing TDS (e.g. site preparation, mineral processing, reclamation, et. al.).

5.2 **Mass Limits:**

The federal NPDES regulation found at 40 CFR 122.45(f) requires that effluent limitations be expressed in terms of mass, if possible.

Most permits contain both concentration and mass based effluent limits. Mass based effluent limits are often imposed to ensure that dilution is not used as a substitute for treatment. Alternatively, in the absence of concentration limits, a Permittee would be able to increase its effluent concentration (i.e., reduce the level of treatment) during periods of low flow and still meet its mass-based effluent limit. Because it is anticipated that many of the facilities seeking coverage under this permit will be discharging over a range of critical low flow receiving water volumes that will vary considerably as a percentage of their average flow, the permit includes concentration based effluent limits only. However, the permit specifically prohibits the use of dilution as a form of treatment, or as a means for which to comply with the permit limitations. No mass limits have been included.

5.3 **Monitoring Requirements:**

The monitoring requirements for the aforementioned pollutants are derived from the previous permit.

In the event a discharge occurs as a result of precipitation greater than the 10 year, 24 hour storm event the discharge is not required to comply with the effluent limitations of this general permit. However, the permittee must submit a DMR to the Department with proof that discharge was caused by such a precipitation event attached.

5.4 **Wastewater Operator Requirements**

Wastewater operator language has been added to the permit so that recent changes to APC&EC Regulation No. 3 are incorporated into this general permit while allowing for varying levels of complexity in treatment technologies.

5.5 **Dredging Operations**

Special conditions for dredging operations have been added to remove regulatory ambiguity concerning suction dredge mining operations in the State of Arkansas not operating within the state’s streams and lakes. Under Arkansas law (ACA Annotated 8-4-102(10)), a pit created through dredge mining could be construed as a water of the state. The addition of these special conditions clarifies that return water from dredging
operations is allowed so long as best management practices to prevent pollution are maintained on-site. No limits have been set for water quality standards for the following reasons:

- The water and waste sand and gravel in the return flow to the pit originated in the pit. Nothing new, including stormwater, is being added to the pit.
- Mining using a dredge is one of the more environmentally favorable types of mining. Dredges are very energy efficient because they use groundwater as the transport medium. Because of their efficiency, dredges are less likely to be a source of lubricant and fuel spills.
- Dredges additionally eliminate the need for spoil piles, as the mining of material is done simultaneously with the sorting of material.
- Dredge wastewater returned to its source without anything added to it is not generally considered mining process wastewater by 40 CFR 436.

**Special Note:** Wet weather and groundwater seepage overflows from sand and gravel dredging operations are subject to federal effluent limitation guidelines for “mine dewatering”. Additionally, any discharge of water caused by the mine operator from a dredge pit is also subject to federal effluent limitation guidelines for mine dewatering. Therefore, every active dredge pond needs to have a permitted outfall location to sample any “mine dewatering” which may occur. All surface discharges from a dredge pit must be monitored in accordance with Outfall Type 101.

5.6 **Design Storm**

The proposed permit requires that all control measures for Outfall Type 101 are designed to manage the volume of water associated with the design storm. The design storm means the maximum volume of water resulting from the 10-year 24 hour precipitation event. The term "10-year 24 hour precipitation event" is the maximum 24 hour precipitation event with a probable reoccurrence interval of once in 10 years. The maximum volume of water is the total from all areas contributing runoff to the sedimentation pond without consideration of loss of water from processes such as infiltration. In addition to designing for the volume of water associated with the design storm, other treatment options, such as the use of settling aides, may be necessary. The intent, however, is that the sedimentation pond must be designed so that it is not overwhelmed by the volume of water from a storm event equal to the design storm. Problems that might result from too much water for the sedimentation pond to handle should be very infrequent; certainly no more frequent than the occurrence of the design storm.

6. **Area and Covered Facilities**

The general permit, when issued, will authorize discharges as specified in the respective outfall types at aggregate facilities throughout the State of Arkansas to all receiving waters except those receiving stream which are excluded in Part 1.3. The permit will be applicable only to facilities which have direct discharges to Waters of the State as defined in 40 CFR 122.2 and are therefore subject to the requirements of Sections 301 and 402 of the Clean Water Act.

7. **Time Frame for Submitting an NOI**

Existing dischargers must submit an NOI and all necessary information stated in Part 1.2.6 of the Permit no later than the expiration date of the 2011 general permit.

New Dischargers shall submit an NOI and all necessary information for permit coverage 90 days prior to the date of desired permit coverage to allow time for the review of the construction of the treatment system.

8. **Information Required for the NOI**
Pursuant to 40 CFR 122.28 the NOI must include certain information in order to receive authorization to discharge under this permit. The NOI requirements are found in Part 1.2.6 of the Draft Permit.

A standardized Form can be accessed once the final permit is issued on the ADEQ web site. The Form could be submitted electronically through e-portal.

9. Facilities Excluded from Coverage

Section 1.3 of the permit has all requirements of federal and state requirements for the facilities that are excluded from this permit.

10. Continuation of Permit Coverage

In accordance with 40 CFR 122.46(a), NPDES permits shall be effective for a fixed term not to exceed five (5) years. Therefore, this Permit (2016 permit) will expire five years from the effective date of the final permit.

The 2016 permit, ARG500000, is required by Arkansas law to be issued 180 days prior to the expiration date of the 2011 permit.

11. Standard Conditions

Specific regulatory management requirements for NPDES permits are contained in 40 CFR 122.41.1. Conditions in Parts 2 through 4 are incorporated in the permit based on 40 CFR 122.41, 40 CFR 122.43, 40 CFR 122.62, 40 CFR 124.5, 40 CFR 136, 40 CFR 122.44(d), 40 CFR 122.44(l), Appendix D of the Continuing Planning Process (CPP), APC&EC Regulation No. 2, and APC&EC Regulation No. 3 in order to provide and ensure compliance with all applicable requirements of the CWA and regulations. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

12. Monitoring and Reporting Requirements

Permittees are required to report on a periodic basis as required by its respective outfalls the results of sampling and analysis on a Discharge Monitoring Report. Reports are required to be submitted by the 25th day of the month following the reporting period. The first report will be due at the end of the reporting period following the date this general permit becomes applicable to the permittee. Oral 24 hour reporting is required for any bypass or upset or any noncompliance which may endanger health or the environment. Unless specifically waived by the Director, written reports must also be provided within 5 days of the above occurrences.

13. Permit Expiration

This general permit will expire five (5) years from the effective date of the Permit.

14. 303(d) list Waters and TMDL

Upon issuance of this permit, all existing and new dischargers will be subject to review to determine whether the discharge is to a segment of a receiving water which is water quality “impaired” or “limited”. Under Section 303(d) of the CWA, the States are periodically required to list all State waters that are not currently meeting their water quality standards. These waters are considered “impaired”. States may also be required to develop a “Total Maximum Daily Load” or TMDL for a waterbody which is a mathematical approach to allocating pollutant loads among a number of dischargers along impaired water, the sum of which is less than
the maximum load allowed to ensure the standards are met. A water where a TMDL is available or planned is considered water quality limited. The adopted water quality standards, approved by EPA, for WLA are contained in WQMP.

The CWA Section 303(d) list for each State provides information on the water body or segment of a waterbody which is impaired along with the pollutant or class of pollutants for which the water is listed. Waters can also be listed for failing to meet minimum flow requirements to support a balanced species population. As part of the Notice of Intent for coverage under this permit, applicants will be required to determine whether the proposed receiving water or segment has been listed on the state’s 303(d) list and whether any pollutant proposed to be discharged is indicated as a cause for listing.

Further information regarding the ADEQ 303(d) listings, TMDLs, and water quality standards for receiving waters can be obtained from the state’s web sites.

15. Public Notice

The public notice describes the procedures for the formulation of the draft decision and shall provide for a public comment period of 30 days in accordance with APC&EC Regulation No. 8. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permitting decision.

A copy of the permit and public notice will be sent via email to the Corps of Engineers, the Regional Director of the U.S. Fish and Wildlife Service, the Department of Arkansas Heritage, the EPA, and the Arkansas Department of Health.

16. Economic Impact

This permit does not place any additional undue burden on any private business entity, large or small. It does not restrict any opportunities that are available to any small businesses. The inspection and control requirements are set at a level to protect water quality while minimizing the resources required for compliance.

The permit fee of $200 is allowed by APC&EC Regulation No. 9 for commercial facilities. If a construction authorization is also required under this permit, then an additional $500 fee will be required based on APC&EC Regulation No. 9.402(A). This permit incorporates construction requirements into the ARG500000. Previously, facilities were required to obtain both the ARG500000 (with a permit fee of $200) and a state construction permit (with a permit fee of $500); so the inclusion of the construction requirements into the ARG500000 does not change the required amount of permit fees. The construction requirements listed in Part 1.2.4 are consistent with the minimum requirements for a state construction permit and will not have any additional economic impact.

No significant changes were made to this permit. Therefore, there is no economic impact to the facility. There may be minimal additional cost for commercial facilities to obtain a Certificate of Good Standing from the Secretary of State of any State other than Arkansas.
17. Contact Information

For additional information regarding this permit, please contact the General Permits Section of the Water Division:

John Bailey
ADEQ, Water Division
Permits Branch Manager
5301 Northshore Drive
North Little Rock, AR 72218-5317
(501) 682-0629
bailey@adeq.state.ar.us

18. Sources

18.1 APC&EC Reg. No. 2.
18.2 APC&EC Reg. No. 3.
18.3 APC&EC Reg. No. 6 which includes Title 40 Code of Federal Regulations adapted verbatim by ADEQ in Reg. 6.104.
18.4 APC&EC Reg. No. 8.
18.5 APC&EC Reg. No. 9.
18.7 Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).
18.8 40 CFR 122.
18.9 40 CFR 124.
18.10 40 CFR 136.
18.11 40 CFR 436.
18.12 ARG500000 existing permit.
18.13 ADEQ Pond Requirements Policy.
18.15 EPA’s “Industrial Stormwater Fact Sheet Series; Sector J: Mineral Mining and Processing Facilities”.