FINAL FACT SHEET
FOR STORMWATER INDUSTRIAL GENERAL PERMIT (IGP) ARR000000

Information in this fact sheet is organized as follows:

1 Background

The IGP covers discharges of stormwater associated with industrial activity. A general permit is designed to provide coverage for a group of related facilities or operations of a specific industry type or group of industries. It is appropriate when the discharge characteristics are sufficiently similar and a standard set of permit requirements can effectively provide environmental protection and comply with water quality standards for discharges. In most cases the general permit will provide sufficient and appropriate stormwater management requirements for discharges of stormwater from industrial sites.

As required by 40 CFR 122.46(a), ADEQ reissues NPDES permits every 5 years. The current permit became effective on July 1, 2014, and will expire on June 30, 2019.

2 Permit Coverage

This IGP authorizes discharges from facilities composed of stormwater associated with industrial activity, as defined in Part 8.33 of the permit, where those discharges enter waters of the State or a Municipal Separate Storm Sewer System (MS4) leading to waters of the State, and are subject to the conditions set forth in this permit. The goal of this permit is to minimize the discharge of stormwater pollutants from industrial activity. The Operator shall read and understand the conditions of the permit.

3 Basis of Permit Conditions

3.1 Water Quality Requirements. In accordance with 40 CFR 122.44(d), the Department is required to include any requirements necessary to achieve State Water Quality Standards as established under Section 303 of the Clean Water Act. Discussed below is the requirements based on State Water Quality Standards.

3.1.1 Discharges to waters for which there is a total maximum daily load (TMDL) allocation are not eligible for coverage under this permit unless a stormwater pollution prevention plan (SWPPP) is developed and certified that it is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, operators must incorporate into their SWPPP any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. If a specific numeric wasteload allocation has been established that would apply to the facility's discharge, the operator must incorporate that allocation into its SWPPP and implement necessary steps to meet that allocation.

3.1.2 Discharges that the Department, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, the Department may notify the facility that an individual permit application is necessary in accordance with Part 7.22. However, the Department may authorize coverage under this permit after inclusion of appropriate controls and implementation procedures in the SWPPP designed to bring the discharge into compliance with water quality standards.

3.2 **Technology Requirements (Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT)).** Two types of technology-based effluent limitations must be included in the permit. With regard to conventional pollutants, i.e., pH, BOD, oil and grease, TSS, and fecal coliform bacteria, CWA section 301 (b)(1)(E) requires effluent limitations based on "best conventional pollution control technology" (BCT). With regard to non-conventional and toxic pollutants, CWA sections 301(b)(2)(A), (C), and (D) require effluent limitations based on "best available pollution control technology economically achievable" (BAT), a standard which generally represents the best performing existing technology in an industrial category or subcategory. BAT and BCT effluent limitations may never be less stringent than corresponding effluent limitations based on best practicable control technology (BPT), a standard applicable to similar discharges prior to March 31, 1989 under CWA 301(b)(1)(A).

Frequently, EPA adopts nationally applicable guidelines identifying the BPT, BCT, and BAT standards to which specific industrial categories and subcategories are subject. Until such guidelines are published, however, CWA section 402(a)(1) requires that EPA determine appropriate BCT and BAT effluent limitations in its NPDES permitting actions on the basis of its best professional judgment.

This General Permit includes coverage for industries that have stormwater specific national effluent guidelines. Standards have been imposed in Part 3.1 of the general permit for the following regulated industrial activities:

Regulated Discharge	40 CFR Section
Runoff from material storage piles at cement manufacturing facilities	Part 411 Subpart C
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, byproducts, or waste products (SIC 2874)	Part 418 Subpart A
Runoff from coal storage piles at steam electric generating facilities	Part 423
Runoff from asphalt emulsion facilities	Part 443 Subpart A
Runoff from airport deicing facilities	Part 449 Subpart A
Mine dewatering from mineral mining and processing facilities	Part 436 Subparts B and C

Effluent Limitations Guideline for Wet Deck Operations (40 CFR 429) and Hazardous Waste Landfills (40 CFR Part 445) were not included for coverage under this general permit. Discharges from these types of facilities are covered under NPDES Individual Permits, which contain more stringent water quality-based limits.

Due to the nature of stormwater, ADEQ believes numerical limits are not feasible at this time for discharges not listed in the table above because no effluent limitation guidelines (ELG) based on BPT; BCT and BAT standards have been promulgated for stormwater discharges from the other regulated industrial activities. Therefore, in accordance with 40 CFR 122.44(k)(3), requirements for the development, implementation, and compliance of a Stormwater Pollution Prevention Plan (SWPPP) in the form of Best Management Practices (BMPs) implementing the required elements of the SWPPP in lieu of numerical limitations is considered to be technology-based limits and will comply with 40 CFR 122.44(d).

3.3 **Permit Limits and Basis.** National guidelines establishing BPT, BCT, and BAT standards have been promulgated for stormwater discharges for the following industrial source categories, which have been imposed in Part 3.3 of the general permit in accordance with the below referenced federal regulations. In addition, a Water Quality Based Standard (WQS) for discharges to all surface waters in the state has been established for the following: in Reg. 2.504 limiting the pH range to between 6.0 and 9.0 s.u. and in Section 2.510 limiting Oil and Grease to 10.0 mg/l Monthly Average and 15.0 mg/l Daily Maximum. The sample type and sample frequency is based on the previous permit.

40 CFR Industry		Basis: Technology or Water Quality	Parameter	Limitation	Monitoring Requirements	
Category	Subcategory				Frequency	Sample Type
Cement Manufacturing 40 CFR 411.32	Runoff from material storage piles	WQ	pH	6.0-9.0 s.u.	once/year	grab
		BPT	Total Suspended Solids (TSS)	50 mg/l (Daily Max)	once/year	grab
Fertilizer Manufacturing 40 CFR 418.12 (d)	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, byproducts or waste products	BPT	Total Phosphorus (as P)	105.0 mg/l (Daily Max)	once/year	grab
				35 mg/l (30-day Avg)	once/year	grab
		BPT	Fluoride	75.0 mg/l (Daily Max)	once/year	grab
				25.0 mg/l (30-day Avg)	once/year	grab
Steam powered electric power generating 40 CFR 423.12 (b)(2) and (9)	Runoff from coal piles[1]	WQ	pH	6.0-9.0 s.u.	once/year	grab
		BPT	TSS[1]	50 mg/l (Daily Max)	once/year	grab
Paving and roofing materials (tars and asphalt) 40 CFR 443.13	Runoff from manufacturing of asphalt emulsion facilities.	BAT	TSS	23.0 mg/l (Daily Max)	once/year	grab
				15.0 mg/l (30-day Avg)	once/year	grab
		WQ	pH	6.0-9.0 s.u.	once/year	grab
		WQ	Oil & Grease	15.0 mg/l (Daily Max)	once/year	grab
				10.0 mg/l (30-day Avg)	once/year	grab
Airport Deicing 40 CFR 449	Airport deicing at primary airports[2, 3]	BAT	Ammonia as Nitrogen	14.7 mg/L (Daily Max)	once/year	grab
Mineral Mining and Processing 40 CFR 436	Mine dewatering from crushed stone and construction sand & gravel facilities[4]	WQ	pH	6.0-9.0 s.u.	once/year	grab

[1] Coal pile runoff shall not be diluted with other stormwater or other flows in order to meet the TSS limitations. Any untreated overflow from facilities designed, constructed and operated to treat the volume of coal pile runoff which is associated with a 10-year, 24-hour rainfall event shall not be subject to the 50 mg/l Total Suspended Solids limitations.

[2] Existing and new primary airports with 1,000 or more annual jet departures ("non-propeller aircraft") that discharge wastewater associated with airfield pavement deicing commingled with stormwater must either use non-urea-containing deicers or meet the effluent limit provided.

[3] New airport deicing sources must meet the New Source Performance Standards (NSPS) listed in 40 CFR 449.11, including the requirement of 40 CFR 449.11(a)(1) to collect at least 60 percent of available Aircraft Deicing Fluid.

[4] Only mine dewatering from surface mining activities for crushed stone, and construction sand and gravel are subject to the ELG-based limits. Mine dewatering from other surface mining activities (as noted in the definition in Part 8.20 of the permit) are not subject to the ELG-based limits.

3.4 Monitoring Requirements and Basis for the Monitoring Parameters:

Monitoring and reporting requirements, except as noted in Section 4 of this Fact Sheet, have not changed from the previous permit.

The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily used to determine the overall effectiveness of BMPs and control measures in controlling the discharge of pollutants to the environment and to assist the facility in knowing when additional corrective action(s) may be necessary.

3.4.1 pH: a measure of acidity and alkalinity in a solution. Regulation 2.504 provides a pH water quality standard of 6.0-9.0 s.u. Measurement of pH helps to ensure that the receiving stream and its intended uses are protected.

3.4.2 Total Suspended Solids (TSS): based on the parameter benchmark values in Part 3.4 of the general permit. Regulation 2.408 states that there shall not be any formation of slime, bottom deposits, or sludge banks. Many raw and finished materials are stored outside at an industrial facility and have the potential to be exposed to stormwater. Suspended solids carried by stormwater from an industrial facility can contain metals and other pollutants. Total Suspended Solids is an adequate measure to ensure the above narrative is complied with and to ensure the effectiveness of any BMP's on-site.

3.4.3 Additional Effluent Characteristics Based on Industrial Sector: Additional effluent characteristics are included in the permit based on the industrial sector of the facility as defined in Part 1.5. These additional parameters are based on the 2015 EPA Multi-Sector Industrial Permit, except for COD and Oil & Grease (O&G), which have been retained from the previous permit for certain industrial sectors as noted below.

COD sectors: A, B, C, I, L, M, N, P, Q, T, U, AA, and AD
O&G sectors: A, D, N, P, U, AA, and AB

The parameter benchmark values in the permit, with the exception of Cadmium, Copper, Mercury, Lead, Nickel, Selenium, Silver, Zinc, Cyanide, and Ammonia are taken from the EPA Multi-Sector General Permit, effective June 4, 2015 (2015 MSGP). The derivation of the parameter benchmark values for Cadmium, Copper, Lead, Nickel, Silver, and Zinc is shown below. See Section 4.3 of this Fact Sheet for details on the values for Mercury, Selenium, and Cyanide.

In general, the freshwater acute criteria are less restrictive than chronic water quality criteria. Because of the intermittent nature of wet weather discharges and the high ambient flows that generally result from precipitation events, ADEQ views acute criteria as generally more appropriate than chronic criteria for use in determining parameter benchmark values.

The WQS for Cadmium, Copper, Lead, Nickel, Silver, and Zinc are hardness dependent. An acute WQS (as dissolved) was calculated for each of these metals, in accordance with the equations in Reg. 2.508, using a hardness value of 100 mg/l (as $CaCO_3$). These WQS were converted from dissolved metal to total metal in accordance with the procedures in Part III of Attachment V of the 2000 Continuous Planning Process, using a TSS value of 100 mg/l. The results, shown below, are the parameter benchmark values for the respective metals. These values are unchanged from the 2014 IGP.

Parameter	Parameter Benchmark Value (mg/l)
Total Cadmium	0.0118
Total Copper	0.0756
Total Lead	0.519
Total Nickel	6.43
Total Silver	0.0107
Total Zinc	0.684

The parameter benchmark value for Ammonia in the 2015 MSGP (continued from the 2008 MSGP) is 2.14 mg/l. This value is based on the acute toxicity for species of endangered mussels at a pH of 8.0 s.u. The IGP excludes coverage for discharges into Ecologically Sensitive Waterbodies (ESW), unless allowed by the Department after review. Since the Department may require facilities that discharge into an ESW to obtain an individual NPDES discharge permit, the more restrictive Ammonia benchmark is not necessary, so the parameter benchmark value for Ammonia of 19 mg/l from the previous permit is being retained in the IGP.

If a facility wants to obtain a site-specific parameter benchmark value for metals, information (TSS and Water Hardness of the Receiving Stream) specific to the site may be submitted along with a written request to the Department.

3.5 **Parts 2 through 7:** Conditions in Parts 2 through 7 are self-explanatory and 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), and Appendix D of the Continuing Planning Process (CPP) in order to provide and ensure compliance with all applicable requirements of the CWA and regulations.

3.6 **Part 8:** Definitions in Part 8 are self-explanatory, and have been included in the permit in order to provide and ensure compliance with all applicable requirements of the CWA and regulations, and to provide clarity for the permit conditions.

4 Major Changes from 2014 IGP and Justification

The permit offers several changes from the 2014 IGP, including the following major changes:

4.1 Added discharges containing polychlorinated biphenyls (PCBs) to the list of excluded discharges in Part 1.8.9.

The Department has added discharges containing polychlorinated biphenyls (PCBs) to the list of excluded discharges because of the large difference (from four to seven orders of magnitude) between the EPA-issued parameter benchmark values for certain PCBs and the human health-based water quality standard for Total PCBs in APC&EC Regulation 2.508.

Although none of the Industrial Sectors specified in the permit were assigned parameter benchmark values for PCBs, the EPA-issued values (published in the Federal Register Monday, October 30, 2000; Volume 65, No. 210; page 64767, and included in previous IGPs) may cause confusion concerning the allowable concentration of PCBs that may be discharged from sites that are contaminated with PCBs.

Therefore, to eliminate confusion, and protect human health and the environment, discharges of stormwater known to contain PCBs have been excluded from coverage under this permit. Stormwater discharges containing PCBs must be covered under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

4.2 Added Effluent Limitations Guideline (ELG) for mine dewatering (40 CFR 436) in Parts 1.4.3 and 3.3.1.

The Department has made the decision to cover discharges subject to the ELGs promulgated under 40 CFR Part 436, Subparts B and C (mine dewatering). Discharges subject to these ELGs have pH limits of 6.0-9.0 s.u. The Department decided to incorporate these ELGs into the IGP rather than require facilities to obtain an individual permit, or coverage under the Aggregate Facility General Permit ARG500000.

It should be noted that the discharge of stormwater from mine dewatering at Industrial Sand facilities (SIC code 1446) is not covered under the IGP. The ELGs from 40 CFR 436 Subpart D have not been included in the permit. Discharges of stormwater from mine dewatering from industrial sand facilities must be covered under an individual NPDES permit.

4.3 Revised parameter benchmark values for Selenium and Cyanide.

In general, the freshwater acute criteria are less restrictive than chronic water quality criteria. Because of the intermittent nature of wet weather discharges and the high ambient flows that generally result from precipitation events, ADEQ views acute criteria as generally more appropriate than chronic criteria for use in determining parameter benchmark values.

The WQS for Mercury, Selenium, and Cyanide are not hardness dependent. The table below shows the respective WQS, and the parameter benchmark values from both the 2014 IGP and the 2019 IGP.

Parameter	Acute WQS (mg/l)	2014 IGP Parameter Benchmark Value (mg/l)	2019 IGP Parameter Benchmark Value (mg/l)
Total Mercury	0.0051	0.0024	0.0024
Total Selenium	0.020	0.239	0.020
Total Cyanide	0.0224	0.0636	0.0224

In the case of Mercury, the benchmark value from the 2014 IGP is more stringent than the Acute WQS, so the value from the 2014 IGP has been retained in the 2019 IGP. For Selenium and Cyanide, the respective acute WQS are more stringent than the respective values from the 2014 IGP, so the acute WQS have been included in the 2019 IGP.

4.4 Added definitions of excavation dewatering, as Part 8.11, and mine dewatering, as Part 8.20.

The Department has added definitions of excavation dewatering and mine dewatering to clarify the difference between the two types dewatering, and to eliminate confusion concerning monitoring and reporting requirements for different mining activities.

The definition of mine dewatering has been included in the permit to help clarify the monitoring requirements for different types of mining activities. As noted in Section 4.2 above, discharges subject to the ELGs from 40 CFR Part 436, Subparts B and C have been incorporated into Part 3.3.1 of the IGP. Footnote 4 in Part 3.3.1 references the definition of mine dewatering to help differentiate between the types of mining activities that are subject to the ELGs and those that are not.

4.5 Toxicity Testing requirements revised in Part 6.

The toxicity testing requirements in Part 6 have been revised to meet updated EPA guidelines.

4.6 Changes to Alternatives to Benchmark Values in Part 3.10.2.

The following statement has been deleted from the permit (previously in Part 3.11.2):

"If, after 60 days, the Department has not notified the operator of its review findings, the permittee may begin to use the alternative(s) to the established parameter benchmark values."

Any alternative benchmark values must have specific approval before they may be utilized by the facility.

4.7 Signatory requirements for documents submitted to an MS4.

The reference to a local MS4 has been deleted from Part 7.8., and Part 7.8.5 has been added to clarify that the signatory requirements that apply to documents submitted to ADEQ also apply to documents submitted to an MS4.

4.8 Submittal of NOI to local MS4 as part of notification requirement.

The requirement that a copy of the NOI be submitted to an MS4 (if a facility discharges to an MS4) has been added to the notification requirement in Part 2.5.

4.9 Revisions for sampling from holding ponds and basins.

The previous permit required that sampling be performed during the first 30 minutes of a "measurable storm event" (described in Part 3.8.2.2). Because holding ponds and basins are designed to collect and retain stormwater, a discharge may not occur from a holding pond or basin due to a measurable storm event, or even multiple storm events. Some holding ponds and basins have outfall structures that allow for controlled discharges, so discharges from these types of facilities may be unrelated to any storm event.

To make allowance for the use of holding ponds and basins as BMPs, the sampling requirements under Part 3.8.2 have been revised. Language specifying that samples must be taken within the first 30 minutes of a discharge from holding ponds or basins has been added to Part 3.8.2.1. Part 3.8.2.3 has been added with requirements specific to holding ponds and basins. Part 3.8.2.5 has been revised to eliminate requirements for recording the date of the storm event sampled, rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff, and the duration between the storm event sampled and the end of the previous measurable storm event, because these are not relevant to discharges from holding ponds and basins.

4.10 "Uncontaminated" added to descriptions of allowable non-stormwater discharges.

"Uncontaminated" has been added to the descriptions of the allowable non-stormwater discharges "routine external building washdown which does not use detergents", and "pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used" in Parts 1.6.6 and 1.6.7 of the permit, respectively. This was done to clarify the descriptions and to bring them into continuity with the non-stormwater discharge descriptions.

5 Contact Information

For additional information regarding this permit, the following may be contacted:

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6 Economic Impact

The Arkansas Industrial Stormwater General Permit ARR000000 incorporates the effluent limitations based on 40 CFR 411, 418, 423, and 443. The permit is also in compliance with state-level regulations (APC&EC Regulation Nos. 2, 5, 6, 8, and 9) concerning the permitting process.

Most of the requirements included in this permit were in the previous permit. The Department expects this permit to have little or no effect on the cost of compliance for most permittees. By including coverage of mine dewatering in the general permit, many facilities that perform surface mining will not be required to obtain an individual NPDES permit, or coverage under the Aggregate Facility General Permit ARG500000.

Therefore, this permit does not place any 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.

7 Public Notice

The draft permit was published for public comment on June 20, 2018. The last day of the comment period was July 20, 2018, thirty (30) days after the publication date. Eleven (11) comments were received on the draft permit. A summary of the comments received by ADEQ during the public comment period and responses to the comments are included with this permit decision. The Response to Comments also includes a discussion of any substantial changes from the draft permit.

A copy of the draft permit and public notice were 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.

8 Sources

The following sources were used to draft this permit:

8.1 40 CFR 122
8.2 40 CFR 436
8.3 APC&EC Regulation 2
8.4 APC&EC Regulation 6
8.5 APC&EC Regulation 9
8.6 APC&EC Regulation 15
8.7 2008 EPA NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity and Fact Sheet
8.8 2015 EPA NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity and Fact Sheet
8.9 **“Industrial Stormwater Monitoring and Sampling Guide”, March 2009 (EPA 832-B-09-003).**