



STATE OF ARIZONA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION  
PHOENIX, ARIZONA 85007

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
GENERAL PERMIT FOR STORMWATER DISCHARGES  
ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM NON-MINING FACILITIES  
TO WATERS OF THE UNITED STATES

This permit provides authorization to discharge under the Arizona Pollutant Discharge Elimination System (AZPDES) program, in compliance with the provisions of the Arizona Revised Statutes, Title 49, Chapter 2, Article 3.1, the Arizona Administrative Code (A.C.C.), Title 18, Chapter 9, Articles 9 and Chapter 11, Article 1, and the Clean Water Act as amended (33 U.S.C. 1251 et seq.).

This general permit specifically authorizes stormwater discharges associated with categories i, ii, iv through ix and xi, pursuant to 40CFR 122.26(b)(14) (non-mining industrial activities) in Arizona. All discharges authorized by this general permit shall be consistent with the terms and conditions of this general permit.

This general permit becomes effective on February 1, 2011.

This general permit and the authorization to discharge expire at midnight, January 31, 2016.

Signed this 20<sup>th</sup> day of December, 2010.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

A handwritten signature in black ink, appearing to read "M. A. Fulton", is written over a horizontal line.

Michael A Fulton, Director  
Water Quality Division

**AZPDES MULTI-SECTOR GENERAL PERMIT FOR STORMWATER DISCHARGES  
ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM NON-MINING FACILITIES**

**TABLE OF CONTENTS**

1.0	Coverage under this Permit .....	1
1.1	Eligibility .....	1
1.2	Permit Compliance.....	4
1.3	Authorization under this Permit.....	4
1.4	Terminating Coverage.....	7
1.5	No Exposure Exclusion.....	7
1.6	Alternative Permits.....	7
2.0	Control Measures, Numeric Effluent Limitations and Water Quality Standards.....	8
2.1	Control Measures.....	8
2.2	Numeric Effluent Limitations and Water Quality Standards.....	11
3.0	Corrective Actions.....	12
3.1	Corrective Action Triggers.....	12
3.2	Corrective Action Deadlines.....	13
3.3	Corrective Action Report.....	13
4.0	Inspections .....	14
4.1	Routine Facility Inspections .....	14
4.2	Visual Assessment of Stormwater Discharges .....	15
4.3	Comprehensive Facility Inspections .....	17
5.0	Stormwater Pollution Prevention Plan (SWPPP).....	18
5.1	Contents of the Facility's SWPPP.....	18
5.2	Required SWPPP Modifications .....	22
5.3	SWPPP Availability .....	22
5.4	Documentation Requirements .....	23
6.0	Analytical Monitoring Program.....	23
6.1	Analytical Monitoring Procedures .....	24
6.2	Required Monitoring.....	26
6.3	Follow-up Actions if Discharge Exceeds Numeric Effluent Limit or a Water Quality Standard .....	31
7.0	Reporting and Recordkeeping .....	31
7.1	Reporting Monitoring Data to ADEQ.....	31
7.2	Annual Report .....	31
7.3	Exceedance Report for Numeric Effluent Limitations or Water Quality Standards .....	31
7.4	Other Reporting.....	32
7.5	Recordkeeping .....	32
7.6	Addresses for Reports .....	32
Part 8 – Sector-Specific Requirements for Industrial Activity .....		34
Subpart A – Sector A – Timber Products .....		34
Subpart B – Sector B – Paper and Allied Products .....		37
Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining .....		38
Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.....		41
Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.....		43
Subpart F – Sector F – Primary Metals.....		46
Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities .....		49
Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.....		53
Subpart M – Sector M – Automobile Salvage Yards .....		57
Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.....		59
Subpart O – Sector O – Steam Electric Generating Facilities .....		64
Subpart P – Sector P – Land Transportation and Warehousing.....		67
Subpart R – Sector R – Ship and Boat Building and Repair Yards .....		72
Subpart S – Sector S – Air Transportation.....		74
Subpart T – Sector T – Treatment Works .....		78
Subpart U – Sector U – Food and Kindred Products.....		80

Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products .....	82
Subpart W – Sector W – Furniture and Fixtures .....	84
Subpart X – Sector X – Printing and Publishing .....	85
Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries .....	86
Subpart Z – Sector Z – Leather Tanning and Finishing .....	88
Subpart AA – Sector AA – Fabricated Metal Products .....	90
Subpart AB – Sector AB – Transportation Equipment, Industrial or Commercial Machinery Facilities .....	93
Subpart AC – Sector AC – Electronic and Electrical Equipment and Components, Photographic and Optical Goods .....	94
Subpart AD – Sector AD – Stormwater Discharges Designated by the Director as Requiring Permits .....	95

### **Appendices**

Appendix A.	Definitions, Abbreviations, and Acronyms (for the purposes of this permit
Appendix B.	Standard Permit Conditions
Appendix C.	Facilities and Activities Covered
Appendix D.	Calculating Hardness in Surface Waters Receiving Stormwater Discharges for Hardness Dependent Metals

**1.0 Coverage under this Permit**

**1.1 Eligibility**

**1.1.1 Facilities Covered**

This general permit authorizes stormwater discharges associated with “industrial activities” as defined in Appendix A from facilities having primary industrial activities included in Appendix C. This permit also authorizes discharges from facilities that are notified by ADEQ that they are regulated under Sector AD and eligible for coverage under this permit. This permit is not authorized for use by facilities with stormwater discharges associated with industrial activities on any Indian Country lands in Arizona. USEPA Region 9 is the permitting authority for Indian lands in Arizona.

**1.1.2 Allowable Stormwater Discharges.**

Unless otherwise ineligible under Part 1.1.4, the following are eligible for discharge under this permit:

1. Stormwater discharges associated with industrial activity for any primary industrial activities and co-located industrial activities, as defined in Appendix A;
2. Discharges designated by ADEQ as needing a stormwater permit as provided in Sector AD;
3. Discharges that are not otherwise required to obtain AZPDES permit authorization but are commingled with discharges that are authorized under this permit; and
4. Discharges subject to any of the effluent limitations guidelines listed in Table 1-1.

<b>Table 1-1. Stormwater Specific Effluent Limitations Guidelines</b>		
<b>Regulated Discharge</b>	<b>40 CFR Section</b>	<b>MSGP Sector</b>
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	A
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B	K, L
Runoff from coal storage piles at steam electric generating facilities	Part 423	O

**1.1.3 Allowable Non-Stormwater Discharges.**

Discharges from emergency fire-fighting activities are an allowable non-stormwater discharge activity without regard to the receiving water. The following non-stormwater discharges are allowed under this permit provided they are ancillary to the permitted use:

1. Fire fighting system testing and maintenance, including hydrant flushings;
2. Discharges related to installation and maintenance of potable water supply systems, including disinfection and flushing activities, discharges resulting from pressure releases or overflows, and discharges from wells approved by ADEQ for drinking water use;
3. Uncontaminated condensate from air conditioners, evaporative coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
4. Irrigation drainage and irrigation line flushing;
5. Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
6. Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
7. Routine external building washdown that does not use detergents;
8. Water used to control dust, provided effluent or other wastewaters are not used;
9. Uncontaminated groundwater or spring water;
10. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
11. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains);
12. Hydrostatic testing of new pipes, tanks or vessels using potable water, surface water, or uncontaminated groundwater;
13. Discharges of water associated with drilling, rehabilitation and maintenance of potable or non-potable water wells and peizometers, or water supply or water quality evaluations including:
  - a. Discharges from any borehole not fully developed;
  - b. Well purging;
  - c. Well/aquifer pump tests not associated with groundwater remediation activities;
  - d. Backflushing of injection wells provided the discharge meets applicable water quality standards; and
14. Non-stormwater discharges subject to an effluent limitation guideline listed in Table 1-1.

#### 1.1.4 Limitations on Coverage

**1.1.4.1 Discharges Mixed with Non-Stormwater.** Stormwater discharges that are mixed with non-stormwater, other than allowable non-stormwater discharges listed in Part 1.1.3 are not eligible for coverage under this permit.

**1.1.4.2 Stormwater Discharges Associated with Construction Activity.** Stormwater discharges associated with construction activity are not eligible for coverage under this permit.

**1.1.4.3 Discharges Currently or Previously Covered by another Permit.** Unless the permittee receives written notification from ADEQ specifically allowing these discharges to be covered under this permit, the following are not eligible for coverage under this general permit:

1. Stormwater or non-stormwater discharges associated with industrial activity that is currently covered under an individual AZPDES permit or an alternative AZPDES general permit and has established numeric water quality-based limitations developed for the stormwater component of the discharge; or
2. Discharges for which any AZPDES permit has been or is in the process of being denied, terminated, or revoked by ADEQ (this does not apply to the routine reissuance of permits every five years).

**1.1.4.4 Stormwater Discharges Subject to Effluent Limitations Guidelines.** For stormwater discharges subject to effluent limitation guidelines under 40 CFR, Subchapter N, only those discharges identified in Table 1-1 are eligible for coverage under this permit.

**1.1.4.5 New Dischargers to Water Quality Impaired Waters.** A new discharger to an impaired water, as defined in Appendix A, is not automatically eligible for coverage under this permit.

1. To receive authorization under this permit, the applicant shall make one of the following demonstrations and retain such data and other technical information onsite with the stormwater pollution prevention plan (SWPPP):
  - a. That the facility will employ measures to prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired; or
  - b. That the discharge from the facility has no potential to contain the pollutants causing impairment; or
  - c. That the discharge is not expected to cause or contribute to an exceedance of an applicable water quality standard. The applicant shall demonstrate either:
    - i. The discharges are subject to stormwater control measures such that the discharges meet the applicable water quality standard, for the parameter causing the impairment, at the point of discharge into the waterbody; or
    - ii. The discharges are consistent with the provisions of the TMDL, including established TMDL allocations and implementation plans.

**Note:** Pursuant to A.A.C. R18-11-109(D)(2), if a receiving water is impaired for suspended solids, turbidity or sediment/ sedimentation, a operator seeking authorization to discharge under this permit may satisfy the requirement of Part 1.1.4.5(1)(c)(i) either by discharging only within the first 48 hours after a local storm event, or by demonstrating that any discharge after that time satisfies the requirements of Part 1.1.4.5(1)(c)(i).

2. The applicant shall submit:
  - a. The NOI in accordance with Part 1.3.1;
  - b. A copy of the SWPPP. The SWPPP shall describe how the permittee will monitor for pollutants of concern in the discharge in accordance with Part 6.2.3; and
  - c. The necessary information or documentation related to the demonstration selected above.
3. If the proposed discharge is to an upstream tributary within 2.5 miles of a water or portion thereof classified as impaired, the applicant shall submit a copy of the SWPPP.
4. Within 32 business days of receipt of information required in Part 1.1.4.5 (2) or (3), ADEQ will notify the applicant in writing that:
  - a. It is acceptable to proceed under the general permit;
  - b. The SWPPP is incomplete or otherwise deficient and must be revised. The applicant shall submit to ADEQ for review the revised SWPPP that addresses the deficiencies as identified in the notification; or
  - c. It is not eligible for coverage under this permit and must apply for an individual permit under Part 1.6.

5. A new discharger to an upstream tributary within 2.5 miles of an impaired water is not required to meet the eligibility requirements set forth above, unless notified by ADEQ, but must submit a copy of the SWPPP with the NOI and is subject to the additional evaluation requirements set forth in Part 1.3.1(2)(c).

**1.1.4.6 Discharges to Outstanding Arizona Waters.**

1. No new or expanded discharges directly to a water or portion thereof classified as an outstanding Arizona water (OAW) (see A.A.C. R18-11-112) are authorized under this permit.
2. New or expanded discharges to tributaries upstream of a water or portion thereof classified as an OAW are not automatically eligible for coverage under this permit. To receive authorization for a new or expanded discharge to a tributary upstream of a water or portion thereof classified as an OAW, the applicant shall:
  - a. Submit the NOI in accordance with Part 1.3.1;
  - b. Prepare a SWPPP that demonstrates the discharge will not degrade existing water quality in the downstream OAW and retain documentation supporting this demonstration onsite with the SWPPP. Information relevant to this demonstration may include, but is not limited to, some or all of the following: (1) the distance between the discharge and the water or portion thereof that is OAW; (2) the estimated size (volume) and duration of the discharge; (3) the expected frequency of the discharge; (4) the expected characteristics of the discharge; and (5) the known or expected water quality of the water or portion thereof that is the OAW during storm events; and
  - c. If the proposed discharge is to an upstream tributary within 2.5 miles of a water or portion thereof classified as an OAW, submit a copy of the SWPPP that includes a sampling and analysis plan to collect data appropriate to verify the demonstration in subsection b, above.
3. Within 32 business days of receipt of information required in Part 1.1.4.6 (2), ADEQ will notify the applicant in writing that:
  - a. It is acceptable to proceed under the general permit;
  - b. The SWPPP is incomplete or otherwise deficient and must be revised. The applicant shall submit to ADEQ for review the revised SWPPP, including any additional parameter identified in accordance with Part 6.2.4, that addresses the deficiencies as identified in the notification; or
  - c. It is not eligible for coverage under this permit and must apply for an individual permit under Part 1.6.

**1.2 Permit Compliance**

Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act and A.R.S. Title 49, Chapter 2, Article 3.1.

**1.3 Authorization under this Permit.**

**1.3.1 Obtaining Authorization to Discharge.**

1. Before obtaining authorization under this permit, the applicant shall:
  - a. Ensure the facility is located in Arizona on land that is outside of Indian Country;
  - b. Ensure that the facility meets the Part 1.1 eligibility requirements;
  - c. Select, design, install, and implement control measures in accordance with Part 2.1;
  - d. Develop a SWPPP according to the requirements in Part 5 of this permit. An applicant seeking authorization for a new discharge to or within 2.5 miles of an impaired water (see Part 1.1.4.5) or for a new or expanded discharge within 2.5 miles of an Outstanding

Arizona Water (see Part 1.1.4.6) is required to submit a copy of the SWPPP, to the Department for review, along with the NOI in subsection (e);

- e. Submit to the Department a complete and accurate Notice of Intent (NOI) Form (either an original, or a photocopy/reproduction) in accordance with A.A.C. R18-9-C901(D) to the address listed in Part 7.6. Other NOI options (i.e., electronic submission) may also be used if ADEQ makes the information available on the Internet or by public notice.

If the facility has the potential to discharge to a regulated municipal separate storm sewer system (MS4), the applicant must provide:

- o The name of the MS4 operator in Section E of the NOI; and
- o Name of closest surface water receiving the discharge.

The NOI form is available at <http://azdeq.gov/permit/azpdes/industrial-stormwater-non-mining-msgp>

## 2. Authorization to Discharge

### a. Routine Authorizations

Unless otherwise notified, the applicant is authorized to discharge stormwater from an eligible facility upon either: receipt of the Authorization to Discharge; or 7 calendar days after a complete and accurate NOI is received by the Department, whichever is earlier. However, in order to rely on this 7 calendar day provision, the operator must submit the NOI in a manner that documents the date of ADEQ's receipt (i.e., certified mail, hand delivery, fax, etc.).

### b. Authorizations to Discharge for New Dischargers to Impaired Waters and New or Expanded Discharges to Tributaries of OAWs

Unless otherwise notified, an applicant subject to Part 1.1.4.5 or 1.1.4.6 is authorized to discharge stormwater from an eligible facility upon receipt of the Authorization to Discharge or 32 business days after a complete and accurate NOI is received by the Department, whichever is earlier.

### c. NOIs Requiring Additional Evaluation.

ADEQ may inform an applicant that authorization to discharge will not occur for up to 32 business days in the event that screening of the NOI provides information requiring further evaluation. ADEQ's notification may be made either in writing, electronically, by fax or phone. The notification typically will be made within 7 calendar days after receipt of the NOI. Applicants who receive notice of a delay in coverage may discharge 32 business days after the date the NOI is received unless further notice is received from ADEQ during this timeframe. Such notice may confirm authorization to discharge, or request additional information to comply with the requirements of this permit.

### d. Requirement to Obtain Alternate Coverage.

ADEQ may require the operator to submit an application for an individual AZPDES permit, as detailed in Part 1.6.1. In these instances, ADEQ will notify the operator in writing of: 1) the delay; or 2) the request for submission of an individual AZPDES permit application.

### e. Discharges to a regulated MS4.

Permittees with discharges to a regulated MS4 shall submit to the MS4 operator a copy of the Department's Authorization to Discharge.

- 3. Incomplete NOI Submitted. If ADEQ notifies the applicant that an NOI is incomplete or incorrect, the applicant must resubmit an amended NOI if the applicant still intends to obtain (or retain) coverage under this permit.

- 4. The time frames for discharge authorization are presented in Table 1-2, below.



Table 1-2. NOI Submittal Deadlines		
Category	NOI Submission Deadline	Discharge Authorization Status
<b>Existing Dischargers</b> – authorized for coverage under MSGP 2000.	The operator shall revise SWPPP documents to conform with this permit and apply for coverage no later than <i>May 31, 2011</i> .	Coverage under the MSGP 2000 is administratively continued until ADEQ: <ul style="list-style-type: none"> <li>• Grants the applicant coverage under this permit (in accordance with Part 1.3.1(2)); or</li> <li>• Issues or denies an alternative permit in accordance with Part 1.6.1.</li> </ul>
<b>Other Eligible Dischargers</b> – in operation prior to the effective date of this permit, but did not obtain coverage under the MSGP 2000 or another AZPDES permit.	The operator shall develop SWPPP documents to conform with this permit and apply for coverage no later than <i>May 31, 2011</i> .	Coverage will begin upon ADEQ issuance of an Authorization to Discharge (in accordance with Part 1.3.1(2)).
<b>New Dischargers</b> – will commence discharging after the effective date of this permit	As soon as possible, and at least 32 business days before discharge is anticipated.	Coverage begins upon ADEQ’s issuance of an Authorization to Discharge (in accordance with Part 1.3.1(2)).
<b>Change of ownership</b> and/ or operation to a new owner/operator of an existing facility (discharger) whose discharge is authorized under this permit.	Permitted owner/operator shall submit a NOT to ADEQ within 30 calendar days after the new owner/operator assumes responsibility for the facility.  New owner/ operator shall submit a NOI to ADEQ 7 calendar days before taking over operational control or initiating activities at the facility.	New owner/ operator obtains coverage.

**1.3.2 Continuation of this Permit**

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with A.A.C. R18-9-C903(A) and remain in force and effect. If the operator is authorized to discharge under this permit prior to the expiration date, any discharges authorized under this permit will automatically remain covered by this permit until the earliest of:

1. The operator submits a timely, complete, and accurate NOI requesting authorization to discharge under a renewal or revision of this permit and ADEQ issues an Authorization to Discharge; or
2. The operator submits a Notice of Termination; or
3. ADEQ denies coverage under this general permit or denies or issues coverage under an individual permit or other alternative permit for the facility’s discharges; or
4. A formal permit decision is made by ADEQ not to reissue this general permit, at which time ADEQ will identify a reasonable time period for covered dischargers to seek coverage under

an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.

#### **1.4 Terminating Coverage**

To terminate permit coverage, the permittee shall submit a complete and accurate Notice of Termination (NOT) form to the address listed in Part 7.6. Other NOT options (i.e., electronic submission) may also be used if ADEQ makes the information available on the Internet or by public notice. The facility's authorization to discharge under this permit terminates at midnight of the day that a complete NOT form is received by the department. The permittee shall submit an NOT within 30 calendar days after a new owner or operator assumes ownership of or has taken over responsibility for the facility.

The permittee shall also submit an NOT when there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and the permittee has already implemented necessary sediment and erosion controls as required by Part 2.1.1.5.

The permittee is responsible for meeting the terms and conditions of this permit until the facility's authorization is terminated.

#### **1.5 No Exposure Exclusion**

Operators may claim relief from the requirement to obtain a permit under the "no exposure" provision by submitting a No Exposure Certification to ADEQ at the address listed in Part 7.6. The No Exposure Certification incorporates the conditions of 40 CFR 122.26(g)(4)(iii) and must be submitted once every five years.

[Note: See A.A.C. R18-9-A902(H) and the Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on "No Exposure" of Industrial Activities to Stormwater found at [www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater) .]

In addition to submitting a No Exposure Certification, the operator shall allow ADEQ and/or the representatives of a regulated MS4 (where there is a stormwater discharge to the MS4) to inspect the facility and to make such inspection reports publicly available upon request. The facility must also submit a copy of the No Exposure Certification to the operator the regulated MS4 into which the facility discharges (if applicable). All No Exposure Certifications must be signed in accordance with the signatory requirements of Appendix B, Subsection 9. The No Exposure Certification is nontransferable.

Permittees operating under a 'no exposure exclusion' that has been accepted by ADEQ are not required to submit an NOT. However, if at any time the facility can no longer satisfy the conditions of no exposure, renewed permit coverage is required and the owner / operator must submit an NOI requesting coverage and comply with the permit. ADEQ retains the authority to deny this exclusion (and require authorization under an individual permit) if it determines that the discharge causes, has a reasonable potential to cause, or contributes to an exceedance of an applicable water quality standard, including designated uses.

#### **1.6 Alternative Permits**

##### **1.6.1 ADEQ Requiring Coverage under an Alternative AZPDES Permit**

ADEQ may require an operator to obtain authorization to discharge under either an individual AZPDES permit or an alternative AZPDES general permit in accordance with A.A.C. R18-9-C902(A). If ADEQ requires an operator to apply for an individual permit, any applications shall be submitted within 120 calendar days, unless ADEQ provides an extended deadline. In addition, a discharger already authorized under this permit, will be notified of a deadline to file a permit application. Coverage under this permit will terminate immediately if the facility fails to submit an individual AZPDES permit application by the specified deadline. ADEQ may take appropriate enforcement action for any unpermitted discharge.

##### **1.6.2 Permittee Requesting Coverage under an Alternative Permit**

An applicant may elect to forego coverage under this general permit by applying for an individual

permit. In such a case, the applicant must submit an individual permit application in accordance with the requirements of A.A.C. R18-9-B901(B)(2) to the Department at the address listed in Part 7.6 and include reasons supporting the request. The request may be granted by issuance of an individual permit or authorization of coverage under an alternative general permit if the Department finds that the reasons are adequate to support the request.

When an individual AZPDES permit is issued to the applicant or the applicant is authorized to discharge under an alternative AZPDES general permit, the authorization to discharge under this permit is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

## **2.0 Control Measures, Numeric Effluent Limitations and Water Quality Standards.**

In Part 2.1 (Control Measures) and in Part 8 (Sector-Specific Requirements for Industrial Activity), the term “minimize” means reduce and/or eliminate to the extent achievable using control measures that are technologically available, economically practicable and achievable in consideration of best industry practice to meet any applicable numeric effluent limitations in Part 2.2.1 and the water-quality based requirements in Parts 2.2.2 and 2.2.3.

The requirement to implement control measures in accordance with Part 2.1 applies to all facilities. Part 8 contains additional control measures imposed on a sector-specific basis. In some cases, sector-specific provisions in Part 8 modify the terms of the general control measures set forth in Part 2.1.

### **2.1 Control Measures**

The permittee shall select, design, install, and implement control measures (including best management practices), as appropriate, to ensure the discharge meets the requirements of Part 2.2. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer’s specifications. If construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in stormwater, or significantly increases the quantity of pollutants discharged, the permittee shall review the selection, design, installation, and implementation of the facility’s control measures to determine if modifications are necessary to meet the requirements of this permit. If the facility’s control measures are not achieving their intended effect of minimizing pollutant discharges, the permittee shall modify these and/or add additional control measures to meet requirements of this permit. Regulated stormwater discharges from the facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.

The permittee shall consider all of the control measures listed below for implementation at the facility and select those that the permittee determines are appropriate, given the nature of the site, to meet the requirements set forth in Parts 2.1.1 and 2.2. The control measures listed below are not intended to be an exclusive list of acceptable control measures. In preparing the SWPPP in accordance with the requirements in Part 5 of this permit, the permittee shall explain the basis for the selection of the control measures to be utilized at the facility.

#### **2.1.1 Control Measure Selection and Design Considerations**

The permittee shall assess the type and quantity of pollutants likely to discharge in stormwater or allowable non-stormwater from the facility when designing and implementing control measures. The permittee shall select and design control measures incorporating one or more of the following principles:

- Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater;
- Using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in the facility’s stormwater discharge;
- Minimizing impervious areas at the facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;

- Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
- Conserving and/or restoring of riparian buffers help protect streams from stormwater runoff and improve water quality; and
- Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

**2.1.1.1 Minimize Exposure.** The permittee shall minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by implementing measures such as the following:

- Locating industrial materials and activities inside or protect them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended)
- Covering fueling area(s) or minimize stormwater run-on/runoff to fueling area(s);
- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- Locating materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);
- Using spill/overflow protection and cleanup equipment;
- Draining fluids from equipment and vehicles prior to on-site storage or disposal;
- Performing all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- Ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system).

The discharge of vehicle and equipment washwater, including tank cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate AZPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

**2.1.1.2 Good Housekeeping.** The permittee shall implement good housekeeping measures for all exposed areas that are potential sources of pollutants. Such measures may include:

- Sweeping at regular intervals;
- Keeping materials orderly and labeled;
- Storing materials in appropriate containers;
- Cleaning up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- Using drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible.

**2.1.1.3 Maintenance.** The permittee shall regularly inspect, test, maintain, and repair all industrial equipment and systems that have the potential for exposure to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants to stormwater discharged from the site. The permittee shall maintain all control measures and equipment in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If the permittee discovers control measures are not achieving the intended effect of minimizing pollutant discharges (i.e., control measures need repair or replacement), the permittee shall make any necessary changes within 14 calendar days following discovery, or before the next measurable storm event (see Part 6.1.2.2), whichever is sooner, to ensure compliance with the applicable numeric effluent limitations in Part 2.2.1 and

water quality-based limitations in Parts 2.2.2 and 2.2.3 of this permit. If necessary changes cannot be implemented within the specified timeframe(s), the permittee shall document with the SWPPP the reasons for the delay, a schedule for completing the necessary changes, date completed and any back-up control measures in place to ensure compliance with the applicable numeric effluent limitations in Part 2.2.1 and water quality-based limitations in Parts 2.2.2 and 2.2.3 of this permit should a runoff event occur while a control measure is off-line (either in part or in whole).

**2.1.1.4 Spill Prevention and Response Procedures.** The permittee shall minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for timely and effective clean-up of spills if or when they occur by implementing measures such as:

- Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause or detect a spill or leak should be knowledgeable in the proper reporting procedures established by their facility. Employees who are responsible for spill response and/or cleanup, must be properly trained and have necessary spill response equipment available; and
- Procedures for notification of appropriate facility personnel and emergency response. Where a leak, spill, or other release occurs that contains a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, the permittee shall notify ADEQ Emergency Response Duty Office at (602) 771-2330 or, toll free, at (800) 234-5677. Contact information must be in locations that are readily accessible and available.

**2.1.1.5 Erosion and Sediment Controls.** The permittee shall minimize on-site erosion and sedimentation, and the resulting discharge of pollutants by using methods such as:

- Stabilizing exposed areas;
- Containing runoff using structural and/or non-structural control measures;
- Placing flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

[*Note:* In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult EPA's internet-based resources relating to BMPs for erosion and sedimentation, including the sector-specific Industrial Stormwater Fact Sheet Series, ([www.epa.gov/npdes/stormwater/msgp](http://www.epa.gov/npdes/stormwater/msgp)), National Menu of Stormwater BMPs ([www.epa.gov/npdes/stormwater/menuofbmps](http://www.epa.gov/npdes/stormwater/menuofbmps)), and National Management Measures to Control Nonpoint Source Pollution from Urban Areas ([www.epa.gov/owow/nps/urbanmm/index.html](http://www.epa.gov/owow/nps/urbanmm/index.html)).]

**2.1.1.6 Management of Runoff.** The permittee shall reduce stormwater runoff to minimize the discharge of pollutants from the facility by implementing control measures such as:

- Diverting, infiltrating, reusing, containing runoff, or
- Treating and/or recycling stormwater runoff collected.

[*Note:* In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult EPA's internet-based resources relating to runoff management, including the sector-specific Industrial Stormwater Fact Sheet Series, ([www.epa.gov/npdes/stormwater/msgp](http://www.epa.gov/npdes/stormwater/msgp)), National Menu of Stormwater BMPs ([www.epa.gov/npdes/stormwater/menuofbmps](http://www.epa.gov/npdes/stormwater/menuofbmps)), and National Management Measures to Control

Nonpoint Source Pollution from Urban Areas ([www.epa.gov/owow/nps/urbanmm/index.html](http://www.epa.gov/owow/nps/urbanmm/index.html).)]

- 2.1.1.7 Salt Storage Piles or Piles Containing Salt.** The permittee shall enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged or if discharges from the piles are authorized under another AZPDES permit.
- 2.1.1.8 Sector Specific Control Measures.** The permittee shall implement any additional control measures in the relevant sector-specific section(s) of Part 8, as appropriate.
- 2.1.1.9 Employee Training.** The permittee shall train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of the facility’s stormwater pollution prevention team (see Part 5.1.1). Training must cover both the specific control measures used to achieve the requirements in Part 2.2 and (for those who will be involved in these activities) the monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. Training shall be conducted at least annually (or more often if circumstances warrant, such as high employee turnover).
- 2.1.1.10 Non-Stormwater Discharges.** The permittee shall not allow any non-stormwater discharges from the facility unless they are specifically authorized in Part 1.1.3.
- 2.1.1.11 Litter, Garbage and Floatable Debris.** The permittee shall ensure that litter, garbage, and floatable debris are not discharged to surface waters by keeping exposed areas free of such materials or by intercepting them before they leave the site.
- 2.1.1.12 Dust Generation and Vehicle Tracking of Industrial Materials.** The permittee shall minimize generation of dust and off-site tracking of raw, final, or waste materials.

**2.2 Numeric Effluent Limitations and Water Quality Standards**

**2.2.1 Numeric Effluent Limitations Based on Effluent Limitations Guidelines**

Table 2-1 below identifies specific regulated activities with effluent limitations guidelines and the locations of effluent limitations guidelines in this permit. Discharges from such activities must meet the specified effluent limitations guidelines. Compliance with these effluent limits is to be determined based on discharges from these regulated activities independent of commingling with any other discharges allowed under this permit.

Table 2-1. Applicable Effluent Limitations Guidelines		
Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.5

Table 2-1. Applicable Effluent Limitations Guidelines		
Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8

### 2.2.2 Water Quality Standards

The permittee shall control discharge from the facility as necessary to not cause or contribute to an exceedance of an applicable water quality standard. ADEQ expects that compliance with other conditions in this permit will control discharges as necessary to not cause or contribute to an exceedance of an applicable water quality standard (A.A.C.R18-11, Article 1). However, if at any time the permittee becomes aware, or ADEQ determines, that the facility's discharge causes or contributes to an exceedance of an applicable water quality standard, the permittee shall take corrective action as required in Part 3.1, document the corrective actions as required in Parts 3.3 and 5.4, and report the corrective actions to ADEQ as required in Part 7.2.

Additionally, ADEQ may impose additional water quality-based requirements on a site-specific basis, or require the operator to obtain coverage under an individual permit in accordance with Part 1.6.1, if information in the Notice of Intent (NOI), required reports, or from other sources indicates the discharges are not controlled as necessary to not cause or contribute to an exceedance of an applicable water quality standard.

### 2.2.3 Discharges to Water Quality Impaired Waters

**2.2.3.1 Existing Discharges to an Impaired Water with an Approved TMDL.** If the discharge is to an impaired water with, or is otherwise referenced in an approved TMDL, the Department may require, as a condition of authorization, additional limits, controls, or monitoring necessary to be consistent with the assumptions of any available wasteload allocation in the TMDL. Alternatively, ADEQ will advise the permittee if coverage under an individual permit is necessary in accordance with Part 1.6.

**2.2.3.2 Existing Discharges to an Impaired Water without an Approved TMDL.** If the discharge is to an impaired water without an approved TMDL, the permittee shall comply with Part 2.2.2 and the monitoring requirements of Part 6.2.3. This subsection applies to discharges directly to impaired waters as well as to situations where ADEQ determines that the facility's discharge is not controlled as necessary to meet water quality standards in a downstream water segment, even if the discharge is to a receiving water that is not specifically identified on a Section 303(d) list.

**2.2.3.3 New Discharges to an Impaired Water.** If the permittee's authorization to discharge under this permit relied on Part 1.1.4.5 for a discharge to an impaired water, the permittee shall implement and maintain any control measures or conditions on the facility that enabled it to become eligible under Part 1.1.4.5. The permittee shall modify such measures or conditions as necessary in accordance with any Part 3 corrective actions. In addition, the permittee shall comply with Part 2.2.2 and the monitoring requirements of Part 6.2.3.

## 3.0 Corrective Actions

### 3.1 Corrective Action Triggers

#### 3.1.1 Conditions Requiring Review and Revision of Control Measures to Eliminate a Problem

If any of the following conditions occur resulting in or from a failure of a control measure, the permittee shall review the selection, design, installation, and implementation of the facility's control measures and revise as necessary to ensure that the condition is eliminated:

- An unauthorized discharge (e.g., discharge of non-stormwater not authorized by this or another AZPDES permit) to a water of the U.S. or to a regulated MS4 occurs at the facility (Part 2.1);
- A discharge violates a numeric effluent limitation guideline (Table 1-1);
- The permittee becomes aware, or ADEQ determines, that the facility's discharge causes or contributes to an exceedance of applicable water quality standard(s) (Part 2.2.2) or an adopted waste load allocation (WLA) (Part 2.2.3); or
- ADEQ, or an operator of a regulated MS4, determines that modifications to the control measures are necessary to meet the requirements of Part 2.2.

### **3.1.2 Substantially Identical Outfalls**

If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the facility's review must assess the need for corrective action for each outfall represented by the outfall that triggered the review.

### **3.2 Corrective Action Deadlines**

The permittee shall document the discovery of any of the conditions listed in Part 3.1 within 72 hours of making such discovery. Within 14 calendar days of such discovery, the permittee shall document any corrective action(s) taken or to be taken to eliminate or further investigate the condition, or if no corrective action is needed, the basis for that determination. The specific documentation required within 72 hours and 14 calendar days is detailed in Part 3.3. When actions are determined necessary, the permittee shall make any necessary changes within 14 calendar days following discovery, or before the next measurable storm event (see Part 6.1.2.2), whichever is sooner, to ensure compliance with the applicable numeric effluent limitations in Part 2.2.1 and water quality-based requirements in Parts 2.2.2 and 2.2.3 of this permit. If necessary changes cannot be implemented within the specified timeframe(s), the permittee shall document with the SWPPP the reasons for the delay, a schedule for completing the necessary changes, date completed and any back-up practices in place to ensure compliance with the applicable numeric effluent limitations in Part 2.2.1 and water quality-based requirements in Parts 2.2.2 and 2.2.3 of this permit should a runoff event occur while a control measure is off-line.

### **3.3 Corrective Action Report**

1. Within 72 hours of discovery of any condition listed in Part 3.1, the permittee shall document the following information, which shall be maintained with the SWPPP:
  - a. Identification of the condition triggering the need for corrective action review;
  - b. Description of the problem identified; and
  - c. Date the problem was identified.
2. Within 14 calendar days of discovery of any condition listed in Part 3.1, the permittee shall document and maintain with the SWPPP the following information:
  - a. Summary of corrective action taken or to be taken;
  - b. Whether SWPPP modifications are required as a result of this discovery or corrective action;
  - c. Date corrective action initiated or will be initiated; and
  - d. Date corrective action completed or expected to be completed.
3. When any condition listed in Part 3.1 occurs, a permittee that operates a facility that discharges to an impaired water or OAW shall submit this documentation in an annual report as required in Part 7.2 and retain a copy of the corrective action report onsite with the SWPPP as required in Part 5.4.



## **4.0 Inspections**

The permittee shall conduct inspections in accordance with Parts 4.1, 4.2, and 4.3 of this permit at the facility. If, during any quarterly routine facility inspection, visual assessment, or comprehensive facility inspection, or any other time, the facility's control measures are found to be inadequate or otherwise not be properly operated and / or maintained, the permittee shall review the selection, design, installation, and implementation of the control measures to determine if maintenance and/or modifications are necessary to meet the applicable numeric effluent limitations in Part 2.2.1 and water quality-based requirements in Parts 2.2.2 and 2.2.3 of this permit, in accordance with the requirements of Part 2.1.1.3. Such modifications shall be documented in the SWPPP and implemented as expeditiously as practicable.

Additional sector-specific inspection requirements may be described in Part 8 of this permit. If a conflict exists between the two, the requirements of Part 8 shall prevail.

### **4.1 Routine Facility Inspections**

#### **4.1.1 Routine Facility Inspection Procedures**

The permittee shall conduct routine inspections of all areas of the facility where industrial materials or activities are exposed to stormwater with the potential to discharge from the facility, and of all stormwater control measures used to comply with this permit. Such routine inspections shall be conducted at least once each calendar quarter beginning with the first full calendar quarter after the facility becomes covered under this permit (see Part 1.3.1(2) and Table 1-2). More frequent inspections (e.g., monthly) may be appropriate for some types of equipment, processes, and control measures or areas of the facility with significant activities and materials exposed to stormwater. The permittee shall specify the relevant inspection schedules in the SWPPP document as required in Part 5.1.5.

A qualified person or persons (see definition in Appendix A) shall conduct routine facility inspections. A member of the stormwater pollution prevention team (see Part 5.1.1) shall conduct or participate in the inspections. Inspections shall be performed during periods when the facility is in operation (i.e., is not inactive and unstaffed in accordance with the requirements of Part 4.1.3). The permittee shall initiate at least one of the routine facility inspections each calendar year while a stormwater discharge is occurring at one or more outfalls, but in no case later than 24 hours or the first business day (whichever comes later) following the end of the measurable storm event.

If there is no measurable storm event(s) during a calendar year, the permittee shall document the inability to perform an inspection during a measurable storm event as described in Part 5.4. In any case, the permittee must still complete routine quarterly inspections.

#### **4.1.2 Routine Facility Inspection Documentation.**

The permittee shall document the findings of each routine facility inspection performed and maintain this documentation with the SWPPP as required in Part 5.4. Inspection findings do not need to be submitted to ADEQ, unless specifically requested. At a minimum, the documentation for each routine facility inspection must include:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information and a description of any discharges occurring at the time of the inspection;
- Evidence demonstrating that previously unidentified discharges of pollutants have occurred from the site;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any other evidence of deviations from the permit or SWPPP observed; and
- Any additional control measures needed to comply with the permit requirements.

### 4.1.3 Exceptions to Routine Facility Inspections

*Inactive and Unstaffed Sites:* The requirement to conduct routine facility inspections on a quarterly basis does not apply to a facility that is inactive and unstaffed, provided that no industrial materials or activities are exposed to stormwater. Such a facility is only required to conduct an annual comprehensive facility inspection in accordance with the requirements of Part 4.3. To invoke this exception, the permittee shall do the following:

- Maintain a statement in the SWPPP pursuant to Part 5.1.5.2 indicating that the facility is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 9.
- If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and the permittee shall immediately resume quarterly inspections.
- If, during the period of coverage under this permit, the facility becomes qualified for the inactive and unstaffed exception, and there are no industrial materials or activities exposed to stormwater, then the permittee shall include the same signed and certified statement as above and retain it pursuant to Part 5.4.

For permittees with inactive and unstaffed facilities that are unable to meet the “no industrial materials or activities exposed to stormwater” standard, the frequency of inspections is reduced to one routine inspection and one CFI each calendar year. These two inspections shall be conducted in the opposing wet seasons and at least three months apart. The SWPPP shall include documentation that the facility is unable to meet this standard and the results of the inspections. Compliance with any additional sector-specific conditions in Part 8 is still required.

## 4.2 Visual Assessment of Stormwater Discharges

The permittee shall perform two visual assessments during the summer wet season and two visual assessments during the winter wet season when the facility is discharging.

Wet seasons, for the purposes of visual assessments, are defined as follows:

- Summer wet season: June 1 – October 31
- Winter wet season: November 1 – May 31

The term ‘wet season’ applies statewide and includes areas of the state where freezing conditions exist that prevent runoff from occurring for extended periods. In areas where freezing conditions exist, the four visual assessments may be distributed during seasons when precipitation runoff occurs.

Visual assessment monitoring requirements in this permit begin immediately after authorization to discharge is received by the permittee unless authorization is received 90 calendar days or more after a wet season has begun, in which case visual assessment monitoring shall commence with the start of the next wet season.

### 4.2.1 Visual Assessment Procedures

Visual assessment samples are not required to be collected consistent with 40 CFR Part 136 procedures.

The visual assessment shall be made:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the permittee shall document why it was not possible to take samples within the first 30 minutes. In the case of

snowmelt, samples shall be taken during a period with a measurable discharge from the facility (see also Part 6.1.2.3); and

- On discharges that occur at least 72 hours (3 calendar days) from a previous discharge (see also Part 6.1.2.2).

The permittee shall visually inspect the sample for the following water quality characteristics:

- Color;
- Odor;
- Clarity;
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and
- Other obvious indicators of stormwater pollution.

#### 4.2.2 Visual Assessment Documentation

The permittee shall document the results of the visual assessments and maintain this documentation with the SWPPP as required in Part 5.4. The visual assessment findings need not be submitted to ADEQ, unless specifically requested by the Department. At a minimum, the documentation of the visual assessment shall include:

- Sample location(s);
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination; and
- If applicable, why it was not possible to take samples within the first 30 minutes.

#### 4.2.3 Exceptions to Visual Assessments

**Absence of Discharge:** If no storm event results in a discharge from the facility or outfall(s) during a wet season, the permittee is excused from visual assessment for the facility or outfall(s) for that season provided the permittee documents in the monitoring records and retains with the SWPPP why a sample could not be collected.

**Adverse Conditions:** Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling unsafe.

When adverse conditions prevent the collection of either visual assessment sample in a given wet season, the permittee shall document those conditions with the SWPPP and resume visual assessment monitoring in the subsequent wet season.

**Inactive and unstaffed sites:** The requirement for a routine visual assessment does not apply at a facility that is inactive and unstaffed, provided that no industrial materials or activities are exposed to stormwater. To invoke this exception, the permittee shall do the following:

- Maintain a statement in the SWPPP as required in Part 5.1.5.2 indicating that the facility is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 9.

- If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and the permittee shall immediately resume visual assessments.
- If, during the period of coverage under this permit, the facility becomes qualified for the inactive and unstaffed exception, and there are no industrial materials or activities exposed to stormwater, then the permittee shall include the same signed and certified statement as above and retain it with the facility's records pursuant to Part 5.4.

Except as provided by Part 8, permittees with inactive and unstaffed facilities that include documentation with the SWPPP that they are unable to meet the "no industrial materials or activities exposed to stormwater" standard shall conduct at least one visual assessment each calendar year.

Substantially identical outfalls: If the facility has two or more outfalls that discharge substantially identical pollutants, as documented in Part 5.1.5.2, the permittee may conduct visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s). If possible, visual assessments of each substantially identical outfall shall be performed on a rotating basis throughout the period of coverage under this permit.

If a visual assessment performed on a sample collected at a substantially identical outfall demonstrates that control measures are not functioning as intended, the permittee shall assess and modify the control measures as appropriate for that outfall and, if necessary, other outfalls represented by the monitored outfall.

### 4.3 Comprehensive Facility Inspections

#### 4.3.1 Comprehensive Facility Inspection Procedures

The permittee shall conduct annual comprehensive facility inspections while covered under this permit. Annual, as defined in this Part, means once per calendar year, but not within 6 months of the previous inspection for the facility throughout the duration of permit coverage.

If the facility's coverage is administratively continued after the expiration date of this permit, the permittee shall continue to perform inspections annually until no longer covered by this permit.

A qualified person or persons shall conduct comprehensive facility inspections (CFI). A member of the facility's stormwater pollution prevention team shall conduct or participate in the inspection. CFIs must cover all areas of the facility affected by the requirements in this permit, including areas identified in the SWPPP as potential pollutant sources (see Part 5.1.3) where industrial materials or activities are exposed to stormwater with the potential to discharge from the facility, any areas where control measures are used to comply with the permit, and areas where significant spills (or spills that would contribute to the discharge of pollutants in stormwater) and leaks have occurred in the past 3 years. CFIs must also include a review of monitoring data collected in accordance with Part 6.2.

Inspectors must evaluate the results of the past year's visual assessments and analytical monitoring when planning and conducting inspections to determine potential areas of concern for stormwater pollution. Inspectors shall look for the following:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas; and
- Control measures needing replacement, maintenance, or repair.

Inspectors shall examine all stormwater control measures required by this permit to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations shall be inspected.

The facility's annual CFI may also be used as one of the routine inspections required by Part 4.1, provided that all components of both types of inspections are included.

#### **4.3.2 Comprehensive Facility Inspection Documentation.**

All permittees shall document the findings of each CFI and maintain this documentation with the SWPPP. At a minimum, the following information shall be included:

- The date of the inspection;
- The name(s) and title(s) of the personnel making the inspection;
- Findings from the examination of areas of the facility identified in Part 4.3.1;
- All observations relating to the implementation of the control measures including:
  - Previously unidentified discharges from the site,
  - Previously unidentified pollutants in existing discharges,
  - Evidence of, or the potential for, pollutants entering the drainage system that are not contemplated in the SWPPP;
  - Evidence of pollutants discharging to surface waters from any facility outfall(s) in a manner inconsistent with the SWPPP, and the condition of and around the outfall, including the condition of flow dissipation measures (if present) designed to prevent scouring, and
  - Additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- Any required revisions to the SWPPP resulting from the inspection;
- Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- A statement signed and certified in accordance with Appendix B, Subsection 9 of this permit.

In addition, permittees that operate facilities that discharge directly to an impaired water or OAW or to an upstream tributary within 2.5 miles of an impaired water or OAW shall submit the CFI findings with the annual report as required in Part 7.2.

### **5.0 Stormwater Pollution Prevention Plan (SWPPP)**

The permittee shall prepare a SWPPP for the facility, or review and update an existing one, as appropriate, before submitting the Notice of Intent (NOI) for permit coverage. The SWPPP shall document the basis for selection, design, and installation of control measures utilized at the facility. The additional documentation requirements (see Part 5.4) are intended to document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements. Additional sector-specific SWPPP requirements may be described in Part 8 of this permit. If a conflict exists between the two, the requirements of Part 8 shall prevail.

#### **5.1 Contents of the Facility's SWPPP**

The SWPPP shall contain all of the following elements:

- Identification of the stormwater pollution prevention team (see Part 5.1.1);
- Site description (see Part 5.1.2);
- Summary of potential pollutant sources (see Part 5.1.3);
- Description of control measures (see Part 5.1.4);
- Schedules and procedures (see Part 5.1.5);
- Signature requirements (see Part 5.1.6);
- Identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations; and

- Sampling and analysis plan (SAP) (see Part 6.1.3).

Where the SWPPP refers to procedures in other facility documents, such as other environmental permits, a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for an Environmental Performance Track facility, copies of the relevant portions of those documents must be kept with the SWPPP.

### 5.1.1 Stormwater Pollution Prevention Team

The permittee shall identify the members (by name or title) that comprise the facility's stormwater pollution prevention team as well as their individual responsibilities. The team may include members who are not employed by the facility (such as third party consultants). The stormwater pollution prevention team is responsible for assisting the facility manager in developing and revising the SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the stormwater pollution prevention team must have access to either an electronic or paper copy of applicable portions of this permit and the SWPPP.

### 5.1.2 Site Description.

The SWPPP shall include all of the following:

1. Activities at the Facility. Provide a description of the nature of the industrial activities at the facility.
2. General location map. Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of the facility and surface waters receiving stormwater discharges from the facility.
3. Site map. Provide a legible site map (or maps) completed to scale, that identifies at a minimum the:
  - Size of the property in acres;
  - Location and extent of significant structures and impervious surfaces;
  - Directions of stormwater flow (e.g., use arrows);
  - Locations of stormwater conveyances (e.g., ditches, pipes, and swales);
  - Locations of all existing structural control measures;
  - Locations of surface waters receiving the facility's discharges and any impaired waters or OAWs within 2.5 miles downstream of the facility;
  - Locations where the facility's stormwater discharges to a regulated MS4 (where applicable);
  - Locations of potential pollutant sources identified under Part 5.1.3.2;
  - Locations where significant spills or leaks identified under Part 5.1.3.3 have occurred;
  - Locations of all stormwater monitoring points;
  - Locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2, etc), indicating whether one or more outfalls are being treated as "substantially identical" under Parts 4.2.3, 5.1.5.2, and 6.1.1.1, and an approximate outline of the areas draining to each outfall;
  - Identification of all outfalls having the potential to contain allowable non-stormwater discharges under Part 1.1.3 and the corresponding type(s) of discharges;
  - Location of on-site drywell(s); include a list of the on-site drywells and their registration number(s);
  - Locations of the following activities where such activities are exposed to stormwater with potential to discharge from the facility:
    - fueling stations;
    - vehicle and equipment maintenance and/or cleaning areas;

- loading/unloading areas;
- locations used for the treatment, storage, or disposal of wastes;
- liquid storage tanks;
- processing and storage areas;
- immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
- transfer areas for substances in bulk; and
- machinery; and
- Locations and sources of run-on to the facility from adjacent property that contains significant quantities of pollutants.

### 5.1.3 Summary of Potential Pollutant Sources

The permittee shall describe in the SWPPP areas at the facility where industrial materials or activities are exposed to stormwater with the potential to discharge and from which allowable non-stormwater discharges are released. *Industrial materials or activities* include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. *Material handling activities* include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

**5.1.3.1 Activities in the area** A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

**5.1.3.2 Pollutants** A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that are handled, treated, stored, or disposed, and that have been exposed to stormwater including any past activities or incidents that may impact present stormwater discharges (see Note in Part 5.1.3.3).

**5.1.3.3 Spills and Leaks** The permittee shall document where significant spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be impacted by stormwater in contact with such spills and leaks. The permittee shall also document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date that the SWPPP was prepared or amended.

*Note:* Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

**5.1.3.4 Unauthorized Non-Stormwater Discharges** Unauthorized non-stormwater discharges are those not specifically allowed under Part 1.1.3. The permittee shall identify and evaluate all unauthorized non-stormwater discharges. Documentation of this evaluation shall include:

- The date of the evaluation;
- A description of the evaluation criteria used;
- A list of the outfalls and/ or upgradient drainage locations that were directly observed during the evaluation;
- The different types of unauthorized non-stormwater discharge(s) and source locations; and

- The action(s) taken, such as a list of control measures used to eliminate unauthorized non-stormwater discharge(s), if any were identified or obtaining an AZPDES permit for the discharge. For example, a floor drain was sealed, a sink drain was re-routed to the sanitary sewer, or an AZPDES permit application was submitted for an unauthorized cooling water discharge.

**5.1.3.5 Salt Storage** The permittee shall document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.

**5.1.3.6 Sampling Data** The permittee shall summarize all stormwater discharge sampling data collected at the facility during the previous permit term.

#### 5.1.4 Description of Control Measures

The permittee shall describe in the SWPPP the location and type of control measures installed and implemented at the facility to comply with Parts 2 and 8 of this permit. This documentation must describe how the control measures at the facility address both the pollutant sources identified in Part 5.1.3 and any stormwater run-on that commingles with any discharges covered under this permit.

#### 5.1.5 Schedules and Procedures

##### 5.1.5.1 Control Measures.

The following must be described in the SWPPP:

- Good Housekeeping measures, procedures and related schedules (See Part 2.1.1.2);
- Maintenance measures, procedures and related schedules (See Part 2.1.1.3) – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems exposed to stormwater with the potential to discharge, and associated control measures, to avoid situations that may result in leaks, spills, and other releases that affect the quality of stormwater discharges; and
- Spill Prevention and Response Procedures (See Part 2.1.1.4) – Procedures for preventing and responding to spills and leaks. The permittee may reference the existence of other plans, such as the Spill Prevention Control and Countermeasure (SPCC) plan developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an AZPDES permit or an aquifer protection permit for the facility, provided that a copy of that other plan is kept with the SWPPP consistent with Part 5.3; and
- Employee Training (Part 2.1.1.9) – A schedule for all types of necessary training in accordance with the sector-specific requirements described in Part 8.

##### 5.1.5.2 Monitoring and Inspection

**Monitoring:** The permittee shall describe in the SWPPP the procedures for conducting the four types of analytical monitoring specified by this permit, when and where applicable. The four types of analytical monitoring are:

- Benchmark monitoring (see Part 6.2.1);
- Effluent limitations guidelines monitoring (see Part 6.2.2);
- Impaired waters monitoring (see Part 6.2.3); and
- Additional monitoring as required by ADEQ (see Part 6.2.4).

For the required monitoring, the SWPPP shall contain a SAP either as a separate section or as an appendix to the SWPPP. The contents of the SAP are outlined in Part 6.1.3.

**Inspection:** The permittee shall describe in the SWPPP the procedures for performing, as appropriate, the three types of inspections specified by this permit, including:

- Routine facility inspections (see Part 4.1);



- Visual assessment of stormwater discharges (see Part 4.2); and
- Comprehensive facility inspections (see Part 4.3).

For each type of inspection performed, the SWPPP shall identify:

- Person(s) or positions of person(s) responsible for inspection;
- Schedules for conducting inspections; and
- Specific items to be covered by the inspection.

***Substantially Identical Outfalls:*** The permittee shall describe the following in the SWPPP when using the substantially identical outfall exception for the visual assessment requirements in Part 4.2 or the facility's benchmark monitoring requirements in Part 6.2.1:

- Location of each of the substantially identical outfalls;
- Description of the general industrial activities conducted in the drainage area of each outfall;
- Description of the control measures implemented in the drainage area of each outfall;
- Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges;
- An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%); and
- Why the outfalls are expected to discharge substantially identical effluents.

**5.1.5.3 Inactive and Unstaffed Sites.** When the permittee invokes either of the following exceptions for inactive and unstaffed sites the SWPPP shall include the information that supports this claim as required by Parts 4.1.3, 4.2.3 and 6.2.1.4:

- Benchmark monitoring; and
- Routine facility inspections and visual assessments.

### 5.1.6 Signature Requirements

The permittee shall sign the SWPPP in accordance with Appendix B, Subsection 9, including the date of signature.

### 5.2 Required SWPPP Modifications

The permittee shall modify the SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 3.1. Changes to the SWPPP to reflect corrective actions shall be made in accordance with the corrective action deadlines in Parts 3.2 and 3.3, and signed and dated in accordance with Appendix B, Subsection 9.

### 5.3 SWPPP Availability

The permittee shall retain a copy of the current SWPPP at the facility, and it shall be made immediately available to ADEQ, EPA, or another Federal, State or local agency having stormwater program authority, or the operator of a regulated MS4 receiving discharges from the facility (where applicable) at the time of an onsite inspection or upon request. If otherwise requested by ADEQ, the permittee shall submit copies of the SWPPP documents within 14 calendar days of request.

***Inactive and Unstaffed Sites:*** Permittees with facilities that meet the requirements for inactive and unstaffed are not required to maintain the SWPPP on-site. However, the SWPPP must be locally available (i.e., in Arizona) and must be on-site when conducting the inspections required by Part 4. For the purpose of a regulatory inspection, the SWPPP shall be made available to ADEQ, EPA, or other Federal, State or local authority having stormwater program authority, within 48 hours of request. If otherwise requested by ADEQ, the permittee shall submit copies of these documents within 14 calendar days of request.

#### 5.4 Documentation Requirements

The permittee shall keep the following inspection, monitoring, and certification records complete and up-to-date. Retaining these records with the SWPPP (unless otherwise specified below) is necessary to demonstrate compliance with the conditions of this permit.

- A copy of the NOI submitted to ADEQ, including: any correspondence exchanged between the operator and ADEQ specific to coverage under this permit and the permit authorization number assigned by ADEQ;
- A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants in stormwater to a regulated MS4 or to waters of the U.S., the circumstances leading to the release and actions taken in response to the release and measures taken to prevent the recurrence of such releases (see Part 2.1.1.4 and 5.1.3.3);
- Records of employee training, including date training received. Training records need not be maintained with the SWPPP but shall be made available to ADEQ, EPA, or another Federal, State or local agency upon request (see Part 2.1.1.9);
- Documentation of repairs of structural control measures, including the date(s) of discovery of areas in need of repair/replacement, date(s) that the structural control measure(s) returned to full function, and the justification for any extended repair schedules (see Part 2.1.1.3). Documentation of maintenance of industrial equipment and systems in accordance with part 2.1.1.3 need not be maintained with the SWPPP but shall be made available to ADEQ, EPA, or another Federal, State or local agency upon request. The maintenance records shall include the date(s) of regular maintenance. However, the justification for any extended maintenance schedules shall be maintained with the SWPPP (see Part 2.1.1.3);
- All inspection reports, including the Routine Facility Inspection Reports (see Part 4.1), the Visual Assessment Reports (see Part 4.2), and the Comprehensive Facility Inspection Reports (see Part 4.3);
- Description of and rationale for any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 4.1.1, 4.2.1, 6.1.2.3, and 6.2.1);
- Description of any corrective action taken at the site, including triggering event and dates when problems were discovered and modifications occurred;
- Documentation of any benchmark exceedances and how they were responded to, including either (1) modifications to control measures, (2) a finding that the exceedance was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if the discharge is directly to impaired waters, and that such pollutants are not detectable in the facility's discharge or were solely attributable to natural background sources (see Part 6.2.1.3); and
- Documentation to support the permittee's claim that the facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 4.1.3), visual assessments (see Part 4.2.3), and/or benchmark monitoring (see Part 6.2.1.4).

#### 6.0 Analytical Monitoring Program.

In addition to visual assessment required in Part 4 of this permit, the permittee shall collect and analyze stormwater samples and document monitoring activities consistent with the procedures described in Part 6 and Appendix B, Subsections 9, 11 and 12 and any sector-specific requirements in Part 8. Refer

to Part 7 for additional reporting and recordkeeping requirements.

## **6.1 Analytical Monitoring Procedures**

### **6.1.1 Analytical Monitoring Locations**

#### **6.1.1.1 Monitored Outfalls**

Applicable monitoring requirements apply to each outfall authorized by this permit. If the facility has two or more outfalls believed to discharge substantially identical stormwater and/or allowable non-stormwater, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas, the permittee may monitor the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s). The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations set forth in Part 2.2.1. The permittee is required to monitor each outfall covered by a numeric effluent limitation as identified in Part 6.2.2.

#### **6.1.1.2 Commingled Discharges.**

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other unauthorized discharges to the extent practicable.

#### **6.1.1.3 Monitoring for Allowable Non-Stormwater Discharges**

Unless otherwise specified by ADEQ, permittees are required to monitor allowable non-stormwater discharges (as delineated in Part 1.1.3) only when they are commingled with stormwater discharges associated with industrial activity.

### **6.1.2 Monitoring Events**

#### **6.1.2.1 Monitoring Periods.**

Monitoring requirements in this permit begin within 90 calendar days of receiving the Department's authorization to discharge. The required monitoring events may be distributed during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from the site.

Wet seasons, for the purposes of analytical monitoring, apply statewide and are defined as follows:

Summer wet season: June 1 – October 31

Winter wet season: November 1 – May 31

The term 'wet season' includes areas of the state where freezing conditions exist that prevent runoff from occurring for extended periods. In areas where freezing conditions exist, the required monitoring and sample collection may be distributed during seasons when precipitation runoff, either as melting snow or rain mixed with melting snow, occurs.

#### **6.1.2.2 Measurable Storm Events.**

All required monitoring must be performed on a storm event that results in a discharge from the facility ("measurable storm event") that follows the preceding measurable storm event by at least 72 hours (3 calendar days). The 72 hour (3 day) storm interval does not apply if the permittee is able to document that less than a 72 hour interval is representative for local storm events during the sampling period. In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs at the site.

For each monitoring event, except snowmelt monitoring, the permittee shall identify the person performing the monitoring, the date and estimated duration (in hours) of the rainfall event, estimated rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm

event. For snowmelt monitoring, the permittee shall identify the sample as 'snowmelt' and the date of the sampling event.

#### **6.1.2.3 Sample Type.**

The permittee shall take a minimum of one grab sample from a discharge resulting from a measurable storm event that produces a sufficient volume to allow collection of a sample. With the exception of samples to be analyzed for Suspended Sediment Concentration (SSC), samples must be collected within the first 30 minutes of a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes and documentation must be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes. Samples for SSC shall be collected 48 hours after the storm event that resulted in a measureable discharge. In the case of snowmelt, samples must be taken during a period with a measurable discharge.

#### **6.1.2.4 Adverse Conditions.**

When adverse conditions as described in Part 4.2.3 prevent the collection of either analytical sample in a given wet season, the permittee shall document those conditions with the SWPPP and resume analytical monitoring in the subsequent wet season. Adverse conditions do not exempt the permittee from the requirement to file a discharge monitoring report (DMR) in accordance with the facility's sampling schedule. The permittee shall report any failure to monitor as specified in Part 7.1 indicating the basis for not sampling during the usual reporting period.

### **6.1.3 Sampling and Analysis Plan.**

The permittee shall develop a written SAP covering all analytical monitoring required by this permit. The SAP shall be a part of the SWPPP as either an appendix or a separate SWPPP section. The SAP shall include the following:

#### **6.1.3.1 Sample Collection, Preservation, Tracking, and Handling Information**

- Designate and train personnel to collect, maintain, and handle samples in accordance with the appropriate sample protocols.
- Identify water quality parameters/pollutants to be sampled including any pollutant(s) of concern in accordance with Parts 6.2.3 and 6.2.4;
- Identify the required sample analyses and associated analytical methods (analytical laboratory and field analyses).
- Written procedures for:
  - Sample collection (equipment and containers, calibration procedures, document site conditions during sampling, field notes and conditions under which the sample was taken),
  - Preservation (sample preparation to meet holding times),
  - Tracking (including chain-of-custody procedures), and
  - Handling (packing, transporting and shipping procedures to maximize sample integrity).

#### **6.1.3.2 Calibration and Maintenance of Monitoring Equipment.**

All monitoring instruments and equipment (including permittee's field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with manufacturer's recommendations.

#### **6.1.3.3 Analytical Methods and Laboratories.**

Other than parameters required to be sampled at the time of sample collection (e.g., field parameters), all samples shall be analyzed by a laboratory that is licensed by the Arizona Department of Health Service (ADHS) Office of Laboratory Licensure and Certification. Identification of the analytical

methods and related limits of detection (if applicable) for each parameter is required. The samples shall be analyzed using analytical methods with a limit of quantitation (LOQ) that is at or below the benchmark concentrations, ELGs or other criteria specified in this permit. If all methods have LOQs higher than the specific criteria, the samples shall be analyzed using the analytical method with the lowest LOQ.

All laboratory analyses shall be conducted according to test procedures specified in 40 CFR 136, unless other test procedures have been specified in this general permit. This requirement does not apply to parameters that require analysis at the time of sample collection as long as the testing methods used are approved by ADHS. The permittee may conduct field analysis of turbidity if the permittee has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to properly perform the field analysis.

#### **6.1.3.4 Records.**

The permittee shall retain records of all stormwater monitoring information and reports as part of the SWPPP in accordance with Part 7.5 and any additional requirements in Appendix B, Subsection 11 of this permit.

## **6.2 Required Monitoring.**

This permit includes four types of required analytical monitoring, one or more of which may apply to the facility's discharge:

- Benchmark monitoring (see Part 6.2.1)
- Effluent limitations monitoring (see Part 6.2.2);
- Impaired waters monitoring (see Part 6.2.3); and
- Additional monitoring as required by ADEQ (see Part 6.2.4).

When more than one type of monitoring for the same parameter at the same outfall applies (e.g., total suspended solids once per year for an effluent limitation and twice per wet season for benchmark monitoring at a given outfall), a single sample may be used to satisfy both monitoring requirements.

All required monitoring shall be conducted in accordance with the procedures described in Appendix B, Subsection 11.D.

### **6.2.1 Benchmark Monitoring.**

This permit stipulates pollutant benchmark concentrations for certain industry sectors. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily to determine the overall effectiveness of the control measures and assist the permittee in knowing when to apply additional corrective action(s) to comply with the effluent limitations in Part 2.

Additional sector-specific benchmark monitoring requirements may be described in Part 8 of this permit.

#### **6.2.1.1 Applicability of Benchmark Monitoring.**

The permittee shall monitor stormwater discharges for all benchmark parameters specified for the primary industrial activity and any co-located industrial activities, applicable to the facility's discharge. The industry-specific benchmark concentrations are listed in the sector-specific sections of Part 8. If the facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, the permittee must characterize for hardness established per Appendix D procedures and submit results to ADEQ with the benchmark report. For discharges to:

- Perennial or intermittent waters, the hardness shall be of the surface water receiving the discharge;

- Ephemeral waters, the hardness shall be of the discharge leaving the facility.

Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which sampling is required (see Part 6.1.3.3).

#### **6.2.1.2 Benchmark Monitoring Schedule.**

Benchmark monitoring must be conducted four times annually, two times each wet season, as identified in Part 6.1.2.1, for the facility's first full year of permit coverage. If four samples are not collected during this period, the permittee must continue collecting samples until 4 samples are obtained from all outfalls subject to benchmark monitoring. For facilities that discharge to ephemeral waters, see Part 6.2.1.5.

#### **6.2.1.3 Data Evaluation**

**Data not exceeding benchmarks:** After collection of 4 samples (or in the case of discharge to ephemeral waters, two samples, in accordance with Part 6.2.1.5), if the average of the monitoring values for any parameter does not exceed the benchmark, the permittee's monitoring requirements are fulfilled for that parameter for the permit term. For averaging purposes, a value of zero shall be used for any individual sample parameter, analyzed using procedures consistent with Part 6.2.1.1, which is determined to be less than the method detection limit. For sample values that fall between the method detection limit and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

**Data exceeding benchmarks:** After collection of 4 samples (or in the case of discharge to ephemeral waters, two samples, in accordance with Part 6.2.1.5), if the average of the monitoring values for any parameter exceeds the benchmark (see Part 8), the permittee shall review the selection, design, installation, and implementation of the control measures to determine if modifications are necessary to meet the effluent limitations in this permit, and either:

- Make the necessary modifications and continue monitoring four times annually, until 4 additional samples (or in the case of discharge to ephemeral waters, two samples) are collected that show the average does not exceed the benchmark; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limitations or are necessary to meet the water-quality-based requirements in Part 2 of this permit. In this case the permittee shall continue monitoring once per wet season. The permittee shall also document the rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with the SWPPP. The permittee shall also notify ADEQ of this determination in the next benchmark monitoring report, which is recorded on the discharge monitoring report (DMR) sent to the Department. See Part 7.1.3.

If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 sample average is mathematically certain (i.e., if the sum of sample results to date is more than 4 times the benchmark level), this is considered a benchmark exceedance. In such cases, the permittee shall review the selection, design, installation, and implementation of the control measures to determine if modifications are necessary to meet the water quality based requirements in this permit. The permittee shall document these changes in the SWPPP. If the permittee determines no changes to existing control measures is required, the permittee shall document in the SWPPP. If after modifying the control measures and conducting the required additional rounds of monitoring, the average still exceeds the benchmark (or if an exceedance of the benchmark is mathematically certain prior to conducting the required additional rounds of monitoring), the permittee shall again review the control measures and take one of the two actions above.

***Natural background pollutant levels:*** Following the first 4 rounds of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 samples, see above), if the average concentration of a pollutant exceeds a benchmark value, and the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, corrective actions and additional benchmark monitoring are not required, provided that:

- The average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background;
- Documentation of the permittee's supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. This documentation must be maintained with the SWPPP, as required in Part 5.4. The permittee's supporting rationale shall include any data previously collected by anyone (including data reported in the literature) that describe the levels of natural background pollutants in the facility's stormwater discharge; and
- Notify ADEQ on the final benchmark monitoring report that the benchmark exceedances are attributable solely to natural background pollutant levels.

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring.

#### **6.2.1.4 Exception for Inactive and Unstaffed Sites.**

The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, provided that no industrial materials or activities are exposed to stormwater. To invoke this exception, the permittee shall do the following:

- Maintain a statement onsite with the SWPPP stating that the facility is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 9; and
- If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and the permittee shall immediately begin complying with the applicable benchmark monitoring requirements under Part 6.2.1 as if it were the permittee's first year of permit coverage. The permittee shall indicate in the first benchmark monitoring report that the facility has materials or activities exposed to stormwater or has become active and/or staffed.
- If, during the period of coverage under this permit, the facility becomes qualified for the inactive and unstaffed exception and there are no industrial materials or activities exposed to stormwater, the permittee shall notify ADEQ of this change in the facility's next benchmark monitoring report. Benchmark monitoring may be discontinued once ADEQ is notified, and the permittee signs the certification statement in Appendix B, Subsection 9 concerning the facility's qualification for this special exception is prepared and signed.

#### **6.2.1.5 Exception to Monitoring Requirements for Ephemeral Waters.**

Facilities authorized for coverage under this permit that discharge to ephemeral waters are not required to monitor for Total Suspended Solids (TSS) and turbidity as part of the benchmark monitoring requirements when the parameters specify TSS and turbidity in the sector-specific section of Part 8. Monitoring for any remaining parameters in Part 8 may be performed once each wet season, for a total of twice per year. The permittee is required to collect at least two samples in a permit term, even if it extends beyond this one year period. Once the two samples have been collected, the permittee shall evaluate the data in accordance with Part 6.2.1.3.

**6.2.2 Effluent Limitations Monitoring.**

**6.2.2.1 Monitoring Based on Effluent Limitations Guidelines.**

Table 6-1 identifies the stormwater discharges subject to effluent limitation guidelines that are authorized for coverage under this permit. Commencing with the first wet season of permit coverage (in accordance with Section 6.1.2.1), the permittee shall monitor once per year at each outfall containing the discharges identified in Table 6-1 for the parameters specified in the sector-specific section of Part 8.

<b>Table 6-1. Required Monitoring for Effluent Limitations Based on Effluent Limitations Guidelines</b>			
<b>Regulated Activity</b>	<b>Effluent Limit</b>	<b>Monitoring Frequency</b>	<b>Sample Type</b>
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 8.A.7	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 8.C.4	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 8.D.4	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 8.E.5	1/year	Grab
Runoff from hazardous waste landfills	See Part 8.K.6	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 8.L.10	1/year	Grab
Runoff from coal storage piles at steam electric generating facilities	See Part 8.O.8	1/year	Grab

**6.2.2.2 Substantially Identical Outfalls.**

The permittee shall monitor each outfall discharging runoff from any regulated activity identified in Table 6-1. The substantially identical outfall monitoring provisions are not available for numeric effluent limitations monitoring.

**6.2.3 Impaired Waters Monitoring.**

**6.2.3.1 Permittees Required to Monitor Discharges to Impaired Waters.**

If a facility discharges to an impaired water, the permittee shall develop a monitoring program in accordance with Part 6.1.3 and monitor for all pollutants for which the waterbody is impaired (except as provided in Part 6.2.3.2) and for which a standard analytical method exists (see 40 CFR Part 136).

If the waterbody is impaired for suspended solids, turbidity or sediment/ sedimentation and the discharge occurs for more than 48 hours after the storm event, the permittee shall monitor for SSC. If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, the permittee shall monitor for that indicator or surrogate pollutant. No monitoring is required when a waterbody’s biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment, or when a waterbody’s impairment is related to hydrologic modifications, impaired hydrology, or temperature.



**6.2.3.2 Impaired Waters Monitoring Schedule.**

**Discharges to impaired waters without an approved TMDL.**

Beginning in the first wet season following the permittee's discharge authorization, the permittee shall monitor twice per wet season at each outfall discharging stormwater to an impaired water without an approved TMDL. Once the four (4) samples have been collected, if the pollutant for which the water is impaired is not detected above applicable water quality standards, the permittee may discontinue further monitoring for that pollutant, under this section. The permittee shall keep records of this finding with the SWPPP. If the pollutant for which the water is impaired is found in the discharge above applicable water quality standards for any of the samples collected in the first year of sampling, the permittee shall continue monitoring twice during each wet season.

Further, this monitoring requirement does not apply after one year if the pollutant for which the waterbody is impaired is not detected above natural background levels in the discharge, and the permittee documents, as required in Part 5.4, that this pollutant is not expected to be present above natural background levels in the discharge.

If the pollutant for which the water is impaired is not present and not expected to be present in the facility's discharge, or it is present but it has been determined that the presence is caused solely by natural background sources, the permittee shall include a notification to this effect in the first monitoring report, after which annual monitoring may be discontinued. To support this determination, the following documentation must be submitted with the first monitoring report and kept with the SWPPP records:

- An explanation of why the presence of the pollutant causing the impairment in your discharge is not related to the activities at the facility; and
- Data and/or studies that tie the presence of the pollutant causing the impairment in the discharge to natural background sources in the watershed.

**Discharges to impaired waters with an ADEQ approved TMDL.**

For stormwater discharges assigned a WLA in an approved TMDL, the facility shall monitor for the pollutant for which the TMDL was written. Beginning in the first wet season following the facility's date of discharge authorization, the permittee shall monitor twice per wet season at each outfall discharging stormwater to the impaired water with an approved TMDL. ADEQ's authorization to discharge will include specifications on any additional pollutant(s) to monitor.

If the pollutant for which the water is impaired is not detected above the applicable WLA in the TMDL after the four samples have been collected, the permittee may discontinue further monitoring, under this section. The permittee shall keep records of this finding onsite with the SWPPP.

If the pollutant for which the water is impaired is found above the applicable WLA in the TMDL in the discharge for any of the samples collected in the first year of sampling, the permittee shall continue monitoring twice during each wet season. Attainment of the WLA for SSC will be based on the median of four samples collected from four different measureable storm events.

**6.2.4 Additional Monitoring Required by ADEQ.**

ADEQ may notify the permittee, in writing, of additional discharge monitoring required to ensure protection of receiving water quality in cases where there is evidence that a pollutant is being discharged that is not being monitored for by the permittee and that the pollutant may be causing or contributing to exceedances of a water quality standard. Any such notice will provide an explanation of the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

### **6.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limit or a Water Quality Standard.**

The permittee shall conduct follow-up monitoring within 30 calendar days (or during the next qualifying runoff event, should none occur within the 30 days) of implementing corrective action(s) taken in accordance with Part 3 in response to an exceedance of a numeric effluent limit or water quality standard contained in this permit as described in Parts 2.2.1 and 2.2.2. Monitoring must be performed for any pollutant(s) that exceeds the effluent limit or water quality standard. If this follow-up monitoring exceeds the applicable effluent limit or water quality standard, the permittee shall comply with both Parts 6.3.1 and 6.3.2.

#### **6.3.1 Submit an Exceedance Report.**

The permittee shall submit an Exceedance Report consistent with Part 7.3.

#### **6.3.2 Continue to Monitor.**

The permittee shall continue to monitor, at least twice per wet season, until the discharge is in compliance with the effluent limit or water quality standard or until ADEQ waives the requirement for additional monitoring.

### **7.0 Reporting and Recordkeeping**

#### **7.1 Reporting Monitoring Data to ADEQ**

**7.1.1** The permittee shall submit monitoring data collected in accordance with Parts 4.2, 6.2, 6.3, and 6.4 to ADEQ at the address in Part 7.6.

**7.1.2** Permittees shall use the MSGP discharge monitoring report (DMR) form available at <http://azdeq.gov/permit/azpdes/industrial-stormwater-non-mining-msgp>

**7.1.3** The permittee shall compile all sampling results for the previous two wet seasons onto DMR form(s). Except as provided in Part 7.2 below, the permittee shall submit the DMRs to ADEQ not later than July 15 of each year of permit coverage.

#### **7.2 Annual Report**

All facilities shall prepare an Annual Report on a form provided by the Department and retain a copy of the report with the SWPPP. The Annual Report for the reporting period June 1 to May 31 shall be completed by July 15 and include, at a minimum:

- The findings from the facility's Part 4.3 comprehensive facility inspection;
- Any corrective action documentation as required in Part 3.3;
- The DMR form(s) as required in Part 7.1 for the preceding two wet seasons; and
- The results of any monitoring required in Part 6.2 for those facilities that discharge to a water (or within 2.5 miles of a water if required by ADEQ) or portion thereof, classified as an OAW or an impaired water, or
- The results of any monitoring required in Part 6.2 if notified by the Department in accordance with Part 1.3.1(2)(c).

Permittees with facilities that discharge to a water (or within 2.5 miles of a water if required by ADEQ, or is otherwise referenced in an approved TMDL) or portion thereof, classified as an OAW or an impaired water shall submit the annual report to ADEQ on or before July 15 (postmark date).

#### **7.3 Exceedance Report for Numeric Effluent Limitations or Water Quality Standards**

If follow-up monitoring pursuant to Part 6.3 exceeds a numeric effluent limit or water quality standard, the permittee shall submit an Exceedance Report to ADEQ no later than 30 calendar days after receiving the facility's lab results. The facility's Exceedance Report shall include the following:

- Facility name, physical address and location;

- AZPDES permit tracking number;
- Name of receiving water;
- Monitoring data from this and the preceding monitoring event(s);
- An explanation of the situation; including what actions the permittee has completed or intends to complete (if corrective actions are not yet complete) to correct the violation; and
- Contact person name, title, and phone number.

#### **7.4 Other Reporting**

The permittee is subject to the reporting requirements stipulated in Part 7, in addition to the standard permit reporting provisions of Appendix B, Subsection 12.

- 24-hour reporting (see Appendix B, Subsection 12.d);
- 5-day follow-up reporting to the 24 hour reporting (see Appendix B, Subsection 12.d.(ii));
- Reportable quantity spills (verbal report only; see Part 2.1.1.4).
- Planned changes (see Appendix B, Subsection 12.a);
- Anticipated noncompliance (see Appendix B, Subsection 12.c);
- Transfer of ownership and/or operation – (see Table 1-2);
- Other noncompliance (see Appendix B, Subsection 12.e); and
- Other information (see Appendix B, Subsection 12.f).

Where a written report is required, the permittee shall submit these reports to the Department's address listed in Part 7.6. If the facility discharges to a regulated MS4, the permittee shall also submit these reports to the MS4 operator (in accordance with Part 5.1.2).

#### **7.5 Recordkeeping**

The permittee shall retain copies of the SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 5.4 (including documentation related to corrective actions taken pursuant to Part 3), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date that the facility's coverage under this permit expires or is terminated.

#### **7.6 Addresses for Reports**

Signed copies of monitoring data and any other reports required, shall be submitted to the address below. Other options (i.e., electronic submission) may also be used if ADEQ makes the information available on the Internet or by public notice. Notices of Intent and Notices of Termination (or a photocopy/reproduction) shall be signed and dated in accordance with Appendix B, Subsection 9 of this permit and submitted to ADEQ at the address below. DMR forms and paper copies of any reports required in Parts 6 and 7 shall be sent to the address below. All other written correspondence concerning discharges covered under this permit shall likewise be sent to the address listed below:

Arizona Department of Environmental Quality  
Surface Water Section, Stormwater Permits Unit—MSGP Monitoring  
1110 W. Washington Street, Mail Code 5415 A-1  
Phoenix, AZ 85007  
Fax: 602/ 771 – 4528

Reports of non-compliance shall be reported to:

Arizona Department of Environmental Quality  
Water Quality Compliance Section  
1110 W. Washington Street, Mail Code 5515 B-1  
Phoenix, AZ 85007  
Office: 602-771 – 2330; Fax 602/ 771 – 4505

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart A – Sector A – Timber Products.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.A.1 Covered Stormwater Discharges.

The requirements in Subpart A apply to stormwater discharges associated with industrial activity from Timber Products facilities as identified by the SIC Codes specified under Sector A in Table C-1 of Appendix C of the permit.

#### 8.A.2 Limitation on Coverage

8.A.2.1 *Prohibition of Discharges.* (See also Part 1.1.4) Not covered by this permit: stormwater discharges from areas where there may be contact with the chemical formulations sprayed to provide surface protection. These discharges must be covered by a separate AZPDES permit.

8.A.2.2 *Allowable Non-Stormwater Discharges.* (See also Part 1.1.3) The following non-stormwater discharges are allowed by this permit provided the non-stormwater component of the discharge is in compliance with the requirements in Part 2.1.1 (Control Measure Selection): discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage.

#### 8.A.3 Additional Control Measures.

8.A.3.1 *Good Housekeeping.* (See also Part 2.1.1.2) In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

#### 8.A.4 Additional SWPPP Requirements.

8.A.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

8.A.4.2 *Inventory of Exposed Materials.* (See also Part 5.1.3.2) Where such information exists, if the facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in the facility's SWPPP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with stormwater runoff.

8.A.4.3 *Description of Stormwater Management Controls.* (See also Part 5.1.4) Document measures implemented to address the following activities and sources: log, lumber and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If the facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

**8.A.5 Additional Inspection Requirements. (See also Part 4.1)**

If the facility performs wood surface protection and preservation activities, inspect processing areas, transport areas, and treated wood storage areas monthly to assess the usefulness of practices to minimize the deposit of treatment chemicals on unprotected soils and in areas that will come in contact with stormwater discharges.

**8.A.6 Sector-Specific Benchmarks**

Table 8.A-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to both the facility’s primary industrial activity and any co-located industrial activities, which describe the site’s activities.

Table 8.A-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
<b>Subsector A1.</b> General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Zinc <sup>1</sup>	Hardness Dependent
<b>Subsector A2.</b> Wood Preserving (SIC 2491)	Total Arsenic	0.15 mg/L
	Total Copper <sup>1</sup>	Hardness Dependent
<b>Subsector A3.</b> Log Storage and Handling (SIC 2411)	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector A4.</b> Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 6.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody				
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies		For discharges to ephemeral waterbodies	
	Copper (mg/L)	Zinc (mg/L)	Copper (mg/L)	Zinc (mg/L)
0-25	0.0036	0.0362	0.0063	0.344
25-50	0.0070	0.0651	0.0121	0.618
50-75	0.0102	0.0918	0.0177	0.871
75-100	0.0134	0.1170	0.0233	1.112
100-125	0.0170	0.1417	0.0283	1.343
125-150	0.0197	0.1652	0.0341	1.568
150-175	0.0221	0.1883	0.0394	1.787
175-200	0.0228	0.2108	0.0447	2.001
200-225	0.0289	0.2329	0.0500	2.211
225-250	0.0316	0.2547	0.0552	2.417
250-275	0.0349	0.2761	0.0601	2.620
275-300	0.0378	0.2972	0.0655	2.821
300-325	0.0408	0.3181	0.0706	3.019
325-350	0.0438	0.3387	0.0757	3.214
350-375	0.0467	0.3591	0.0800	3.408
375-400	0.0496	0.3793	0.0859	3.599

**8.A.7 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.A-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Industrial Activity	Parameter	Effluent Limitation
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	pH	6.0 – 9.0 s.u.
	Debris (woody material such as bark, twigs, branches, heartwood, or sapwood)	No discharge of debris that will not pass through a 2.54-cm (1-in.) diameter round opening

<sup>1</sup> Monitor annually.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart B – Sector B – Paper and Allied Products.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.B.1 Covered Stormwater Discharges.**

The requirements in Subpart B apply to stormwater discharges associated with industrial activity from Paper and Allied Products Manufacturing facilities, as identified by the SIC Codes specified under Sector B in Table C-1 of Appendix C of the permit.

**8.B.2 Sector-Specific Benchmarks. (See also Part 6.)**

Table 8.B-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector B1. Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L



## **Part 8 – Sector-Specific Requirements for Industrial Activity**

### **Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### **8.C.1 Covered Stormwater Discharges.**

The requirements in Subpart C apply to stormwater discharges associated with industrial activity from Chemical and Allied Products Manufacturing, and Refining facilities, as identified by the SIC Codes specified under Sector C in Table C-1 of Appendix C of the permit.

#### **8.C.2 Limitations on Coverage.**

8.C.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: non-stormwater discharges containing inks, paints, or substances (hazardous, nonhazardous, etc.) resulting from an onsite spill, including materials collected in drip pans; washwater from material handling and processing areas; and washwater from drum, tank, or container rinsing and cleaning.

#### **8.C.3 Sector-Specific Benchmarks**

Table 8.C-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to both the facility's primary industrial activity and any co-located industrial activities.

Table 8.C-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
<b>Subsector C1.</b> Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	Reserved
	Total Lead <sup>1</sup>	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc <sup>1</sup>	Hardness Dependent
	Phosphorus	2.0 mg/L
<b>Subsector C2.</b> Industrial Inorganic Chemicals (SIC 2812-2819)	Total Aluminum	0.75 mg/ L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	Reserved
<b>Subsector C3.</b> Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	Reserved
	Total Zinc <sup>1</sup>	Hardness Dependent
<b>Subsector C4.</b> Plastics, Synthetics, and Resins (SIC 2821-2824)	Total Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 6.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody				
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies		For discharges to ephemeral waterbodies	
	Lead (mg/L)	Zinc (mg/L)	Lead (mg/L)	Zinc (mg/L)
0-25	0.014	0.0362	0.0293	0.344
25-50	0.030	0.0651	0.0636	0.618
50-75	0.047	0.0918	0.0995	0.871
75-100	0.065	0.1170	0.1363	1.112
100-125	0.082	0.1417	0.1736	1.343
125-150	0.100	0.1652	0.2113	1.568
150-175	0.118	0.1883	0.2492	1.787
175-200	0.136	0.2108	0.2873	2.001
200-225	0.154	0.2329	0.3255	2.211
225-250	0.172	0.2547	0.3637	2.417
250-275	0.190	0.2761	0.4020	2.620
275-300	0.209	0.2972	0.4402	2.821

Benchmark values based on hardness and receiving waterbody				
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies		For discharges to ephemeral waterbodies	
	Lead (mg/L)	Zinc (mg/L)	Lead (mg/L)	Zinc (mg/L)
300-325	0.227	0.3181	0.4784	3.019
325-350	0.245	0.3387	0.5166	3.214
350-375	0.263	0.3591	0.5547	3.408
375-400	0.281	0.3793	0.5927	3.599

**8.C.4 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.C-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.C-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Total Phosphorus (as P)	105 mg/L, daily maximum
		35 mg/L, 30-day avg.
	Fluoride	75.0 mg/L, daily maximum
		25.0 mg/L, 30-day avg.

<sup>1</sup> Monitor annually.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.D.1 Covered Stormwater Discharges.

The requirements in Subpart D apply to stormwater discharges associated with industrial activity from Asphalt Paving and Roofing Materials and Lubricant Manufacturing facilities, as identified by the SIC Codes specified under Sector D in Table C-1 of Appendix C of the permit.

#### 8.D.2 Limitations on Coverage.

The following stormwater discharges associated with industrial activity are not authorized by this permit (See also Part 1.1.4)

- 8.D.2.1 Discharges from petroleum refining facilities, including those that manufacture asphalt or asphalt products, that are subject to nationally established effluent limitation guidelines found in 40 CFR Part 419 (Petroleum Refining); or
- 8.D.2.2 Discharges from oil recycling facilities; or
- 8.D.2.3 Discharges associated with fats and oils rendering.

#### 8.D.3 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements.

Permit holders of inactive and unstaffed asphalt batch / bituminous concrete plants (SIC 2951) may qualify for reduced inspections and monitoring provisions of the no exposure provisions of Parts 4.1.3, 4.2.3 and 6.2.1.4, without certifying "there are no industrial materials or activities exposed to stormwater". This exemption is conditioned on the following:

- At a minimum, the permittee shall implement the following control measures to meet the no exposure requirements:
  - Materials used in the production of asphalt (i.e., asphaltic concrete oil, diesel fuel, burner fuel, etc.) will be kept in appropriate containers and within containment if applicable;
  - Ensure valves are closed and secured;
  - Good housekeeping measures as outlined in the facility's SWPPP, and in accordance with Part 2.1.1.2, such as: ensure materials are properly labeled, clean up trash, debris and other materials;
  - Ensure the site is secured, such as locking entrance gates;
  - Material stockpiles shall be protected from erosion.
- If circumstances change and the facility becomes active and/or staffed, this exemption no longer applies and the permittee shall immediately begin complying with the applicable benchmark monitoring requirements as if the facility were in the first year of permit coverage, including the wet season visual assessment requirements; and
- ADEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contribute to an exceedance of an applicable water quality standard, including designated uses.

Subject to the two conditions above, if the facility is inactive and unstaffed, the permittee is waived from the requirement to conduct wet season visual assessments and benchmark

monitoring. The quarterly routine facility inspections are reduced to one routine facility inspection and one CFI each calendar year. These inspections shall be conducted in the opposing wet seasons and at least three months apart. The permittee shall also inspect the site whenever there is a reasonable expectation that severe weather or natural disasters may have damaged control measures or increased discharges.

**8.D.4 Sector-Specific Benchmarks.**

Table 8.D-1 identifies benchmarks that apply to the specific subsectors of Sector D. These benchmarks apply to both the facility’s primary industrial activity and any co-located industrial activities, which describe the site’s activities.

Table 8.D-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector D1. Asphalt Paving and Roofing Materials (SIC 2951, 2952)	Total Suspended Solids (TSS)	Reserved

**8.D.5 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1).**

Table 8.D-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.D-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg.
	pH	6.0 – 9.0 s.u.
	Oil and Grease	15 mg/L, daily maximum 10 mg/L, 30-day avg.

<sup>1</sup>Monitor annually.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.E.1 Covered Stormwater Discharges.

The requirements in Subpart E apply to stormwater discharges associated with industrial activity from Glass, Clay, Cement, Concrete, and Gypsum Products facilities, as identified by the SIC Codes specified under Sector E in Table C-1 of Appendix C of the permit.

#### 8.E.2 Additional Control Measures.

8.E.2.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2) With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in stormwater from paved portions of the site that are exposed to stormwater. Where applicable, the permittee shall minimize the presence of these materials, by using measures such as sweeping regularly or other equivalent measures. Indicate in the facility's SWPPP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. The permittee shall also prevent the exposure of fine granular material (cement, fly ash, kiln dust, etc.) to stormwater by storing these materials in an appropriate manner, such as in enclosed silos, hoppers, or buildings, or under other covering.

#### 8.E.3 Additional SWPPP Requirements.

8.E.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

8.E.3.2 *Certification.* (See also Part 5.1.3.4) For facilities producing ready-mix concrete, concrete block, brick, or similar products, include in the non-stormwater discharge certification a description of measures that ensure that process waste waters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with AZPDES requirements or are recycled.

#### 8.E.4 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements.

Permit holders of inactive and unstaffed ready-mixed concrete plants (SIC 3273) may qualify for reduced inspections and monitoring provisions of the no exposure provisions of Parts 4.1.3, 4.2.3 and 6.2.1.4, without certifying "there are no industrial materials or activities exposed to stormwater". This exemption is conditioned on the following:

- At a minimum, the permittee shall implement the following control measures to meet the no exposure requirements:
  - Materials used in the production of concrete (i.e., admixtures, cement and fly ash, diesel fuel, etc.) shall be kept in appropriate containers and within containment if applicable;
  - Ensure valves are closed and secured;

- Good housekeeping measures as outlined in the facility’s SWPPP, and in accordance with Part 2.1.1.2, such as: ensure materials are properly labeled, clean up trash, debris and other materials;
- Ensure the site is secured, such as locking entrance gates; and
- Material stockpiles shall be protected from erosion.
- If circumstances change and the facility becomes active and/or staffed, this exemption no longer applies and the permittee shall immediately begin complying with the applicable benchmark monitoring requirements as if the facility were in the first year of permit coverage, including the wet season visual assessment requirements; and
- ADEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contribute to an exceedance of an applicable water quality standard, including designated uses.

Subject to the two conditions above, if the facility is inactive and unstaffed, the permittee is waived from the requirement to conduct wet season visual assessments and benchmark monitoring. The quarterly routine facility inspections are reduced to one routine facility inspection and one CFI each calendar year. These inspections shall be conducted in the opposing wet seasons and at least three months apart. The permittee shall also inspect the site whenever there is a reasonable expectation that severe weather or natural disasters may have damaged control measures or increased discharges.

**8.E.5 Sector-Specific Benchmarks.**

Table 8.E-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to both the facility’s primary industrial activity and any co-located industrial activities, which describe the site’s activities.

<b>Table 8.E-1</b>		
<b>Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector E1.</b> Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
<b>Subsector E2.</b> Concrete and Gypsum Product Manufacturers (SIC 3271-3275)	Total Suspended Solids (TSS)	Reserved
	Total Iron	1.0 mg/L

**8.E.6 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.E-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.E-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
Discharges from material storage piles at cement manufacturing facilities: any discharge composed of runoff that derives from the storage of materials including raw materials, intermediate products, finished products, and waste materials that are used in or derived from the manufacture of cement.	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 – 9.0 s.u.

<sup>1</sup>Monitor annually.



## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart F – Sector F – Primary Metals.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.F.1 Covered Stormwater Discharges.

The requirements in Subpart F apply to stormwater discharges associated with industrial activity from Primary Metals facilities, as identified by the SIC Codes specified under Sector F in Table C-1 of Appendix C of the permit.

#### 8.F.2 Additional Control Measures

8.F.2.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2) As part of the facility's good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a cleaning and maintenance program in these areas, too). For unstabilized areas where cleaning and maintenance measures such as sweeping are not practicable, use alternative stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

#### 8.F.3 Additional SWPPP Requirements.

8.F.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants in stormwater.

8.F.3.2 *Inventory of Exposed Material.* (See also Part 5.1.3.2) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible.

#### 8.F.4 Additional Inspection Requirements. (See also Part 4.1)

As part of conducting the facility's quarterly routine facility inspections (Part 4.1), address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Monitor air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

**8.F.5 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements.**

Permit holders of inactive and unstaffed Sector F facilities (SIC 3312 – 3399) may qualify for reduced inspections and monitoring provisions of the no exposure provisions of Parts 4.1.3, 4.2.3 and 6.2.1.4, without certifying “there are no industrial materials or activities exposed to stormwater”. This exemption is conditioned on the following:

- At a minimum, the permittee shall implement the following control measures to meet the no exposure requirements:
  - Ensure that all process and material handling equipment (e.g., conveyors, cranes, and vehicles) are safeguarded against leaks, drips, or the potential loss of material; and that material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) are kept in appropriate containers and within containment if applicable to ensure against material losses due to wind or stormwater runoff;
  - Ensure valves are closed and secured;
  - Good housekeeping measures as outlined in the facility’s SWPPP, and in accordance with Part 2.1.1.2, such as: ensure materials are properly labeled, clean up trash, debris and other materials;
  - Ensure the site is secured, such as locking entrance gates;
  - Material stockpiles shall be protected from erosion and/ or downstream catchments are installed and maintained.
- If circumstances change and the facility becomes active and/or staffed, this exemption no longer applies and the permittee shall immediately begin complying with the applicable benchmark monitoring requirements as if the facility were in the first year of permit coverage, including the wet season visual assessment requirements; and
- ADEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contribute to an exceedance of an applicable water quality standard, including designated uses.

Subject to the two conditions above, if the facility is inactive and unstaffed, the permittee is waived from the requirement to conduct wet season visual assessments and benchmark monitoring. The quarterly routine facility inspections are reduced to one routine facility inspection and one CFI each calendar year. These inspections shall be conducted in the opposing wet seasons and at least three months apart. The permittee shall also inspect the site whenever there is a reasonable expectation that severe weather or natural disasters may have damaged control measures or increased discharges.

**8.F.6 Sector-Specific Benchmarks. (See also Part 6.)**

Table 8.F-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector F1. Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
	Total Zinc <sup>1</sup>	Hardness Dependent
Subsector F2. Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Copper <sup>1</sup>	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc <sup>1</sup>	Hardness Dependent

Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector F3. Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Total Copper <sup>1</sup>	Hardness Dependent
	Total Zinc <sup>1</sup>	Hardness Dependent
Subsector F4. Nonferrous Foundries (SIC 3363-3369)	Total Copper <sup>1</sup>	Hardness Dependent
	Total Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies		For discharges to ephemeral waterbodies	
	Copper (mg/L)	Zinc (mg/L)	Copper (mg/L)	Zinc (mg/L)
0-25	0.0036	0.0362	0.0063	0.344
25-50	0.0070	0.0651	0.0121	0.618
50-75	0.0102	0.0918	0.0177	0.871
75-100	0.0134	0.1170	0.0233	1.112
100-125	0.0170	0.1417	0.0283	1.343
125-150	0.0197	0.1652	0.0341	1.568
150-175	0.0221	0.1883	0.0394	1.787
175-200	0.0228	0.2108	0.0447	2.001
200-225	0.0289	0.2329	0.0500	2.211
225-250	0.0316	0.2547	0.0552	2.417
250-275	0.0349	0.2761	0.0601	2.620
275-300	0.0378	0.2972	0.0655	2.821
300-325	0.0408	0.3181	0.0706	3.019
325-350	0.0438	0.3387	0.0757	3.214
350-375	0.0467	0.3591	0.0800	3.408
375-400	0.0496	0.3793	0.0859	3.599

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.K.1 Covered Stormwater Discharges.

The requirements in Subpart K apply to stormwater discharges associated with industrial activity from Hazardous Waste Treatment, Storage, or Disposal facilities (TSDFs) as identified by the Activity Code specified under Sector K in Table C-1 of Appendix C of the permit.

#### 8.K.2 Industrial Activities Covered by Sector K.

This permit authorizes stormwater discharges associated with industrial activity from facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of RCRA.

Disposal facilities that have been properly closed and capped, and have no significant materials exposed to stormwater, are considered inactive and do not require coverage under this general permit.

#### 8.K.3 Limitations on Coverage.

8.K.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

#### 8.K.4 Definitions.

- 8.K.4.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.5. Some specific areas of a landfill that may produce contaminated stormwater include (but are not limited to): the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.
- 8.K.4.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.
- 8.K.4.3 *Landfill* - an area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR 257.2, 258.2, and 260.10.
- 8.K.4.4 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated stormwater, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.K.4.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.K.4.6 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.4. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

**8.K.5 Sector-Specific Benchmarks**

Table 8.K-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to both the facility’s primary industrial activity and any co-located industrial activities, which describe the site’s activities.

Table 8.K-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
<b>Subsector K1.</b> ALL - Industrial Activity Code “HZ” ( <i>Note:</i> permit coverage limited in some States). Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A (see below).	Ammonia	2.14 mg/L
	Total Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Arsenic	0.15 mg/L
	Total Cadmium <sup>1</sup>	Hardness Dependent
	Total Cyanide	0.022 mg/ L
	Total Lead <sup>1</sup>	Hardness Dependent
	Total Mercury	0.0014 mg/ L
	Total Selenium	0.005 mg/L
Total Silver <sup>1</sup>	Hardness Dependent	

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 6.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody						
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies			For discharges to ephemeral waterbodies		
	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)
0-25	0.0020	0.014	0.0003	0.0059	0.0293	0.0003
25-50	0.0040	0.030	0.0010	0.0116	0.0636	0.0010
50-75	0.0060	0.047	0.0020	0.0172	0.0995	0.0020
75-100	0.0079	0.065	0.0032	0.0228	0.1363	0.0032
100-125	0.0096	0.082	0.0047	0.0286	0.1736	0.0047

Benchmark values based on hardness and receiving waterbody						
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies			For discharges to ephemeral waterbodies		
	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)
125-150	0.0117	0.100	0.0065	0.0338	0.2113	0.0065
150-175	0.0136	0.118	0.0084	0.0393	0.2492	0.0084
175-200	0.0154	0.136	0.0106	0.0447	0.2873	0.0106
200-225	0.0173	0.154	0.0130	0.0501	0.3255	0.0130
225-250	0.0192	0.172	0.0156	0.0555	0.3637	0.0156
250-275	0.0173	0.190	0.0183	0.0609	0.4020	0.0183
275-300	0.0210	0.209	0.0213	0.0663	0.4402	0.0213
300-325	0.0246	0.227	0.0244	0.0714	0.4784	0.0244
325-350	0.0266	0.245	0.0278	0.0770	0.5166	0.0278
350-375	0.0284	0.263	0.0312	0.0823	0.5547	0.0312
375-400	0.0302	0.281	0.0349	0.0876	0.5927	0.0349

**8.K.6 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.K-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Industrial Activity	Parameter	Effluent Limitation
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A (see footnote).	Biochemical Oxygen Demand (BOD <sub>5</sub> )	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum

Table 8.K-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
	Pyridine	0.072 mg/L, daily maximum
		0.025 mg/L, monthly avg. maximum
	Total Arsenic	1.1 mg/L, daily maximum
		0.54 mg/L, monthly avg. maximum
	Total Chromium	1.1 mg/L, daily maximum
		0.46 mg/L, monthly avg. maximum
	Total Zinc	0.535 mg/L, daily maximum
		0.296 mg/L, monthly avg. maximum
	pH	6.0 – 9.0 s.u.

<sup>1</sup> Monitor annually. As set forth at 40 CFR Part 445 Subpart A, these numeric limitations apply to contaminated stormwater discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR Parts 264 (Subpart N) and 265 (Subpart N) except for any of the following facilities:

- (a) Landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) Landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.L.1 Covered Stormwater Discharges.**

The requirements in Subpart L apply to stormwater discharges associated with industrial activity from Landfills and Land Application Sites and Open Dumps as identified by the Activity Code specified under Sector L in Table C-1 of Appendix C of the permit.

**8.L.2 Industrial Activities Covered by Sector L.**

This permit authorizes stormwater discharges for Sector L facilities associated with waste disposal at landfills, land application sites, and open dumps that receive or have received industrial waste, including sites subject to regulation under Subtitle D of RCRA. This permit does not cover discharges from landfills that receive only municipal wastes.

**8.L.3 Limitations on Coverage.**

8.L.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

**8.L.4 Definitions.**

8.L.4.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

8.L.4.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

8.L.4.3 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill process wastewater includes, but is not limited to, leachate; gas collection condensate; drained free liquids; laboratory-derived wastewater; contaminated stormwater; and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

8.L.4.4 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.L.4.5 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.



**8.L.5 Additional Control Measures.**

- 8.L.5.1 *Preventive Maintenance Program.* (See also Part 2.1.1.3) As part of the facility's preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with stormwater; the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary), to minimize the effects of settlement, sinking, and erosion.
- 8.L.5.2 *Erosion and Sedimentation Control.* (See also Part 2.1.1.5) Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.
- 8.L.5.3 *Unauthorized Discharge Test Certification.* (See also Part 5.1.3.4) The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

**8.L.6 Additional SWPPP Requirements.**

- 8.L.6.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.
- 8.L.6.2 *Summary of Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

**8.L.7 Additional Inspection Requirements. (See also Part 4)**

- 8.L.7.1 *Inspections of Active Sites.* Inspect operating landfills, open dumps, and land application sites at least once every month. At a minimum, the inspection shall include the following: (a) areas of landfills that have not yet been finally stabilized; (b) active land application areas; (c) areas used for storage of material and wastes that are exposed to precipitation; (d) landfill (or open dump) stabilization and structural control measures; (e) leachate collection and treatment systems; and (f) locations where equipment and waste trucks enter and exit the site.  
  
Ensure that sediment and erosion control measures are operating properly.
- 8.L.7.2 *Inspection Schedule for Sites within 1/4 mile of Impaired or Outstanding Arizona Waters.* If any discharge point from the facility is within 1/4 mile of an impaired or outstanding Arizona water, the permittee shall inspect the discharge point at least twice per month with at least 7 calendar days between inspections. In addition, the permittee shall visually observe stormwater discharges at all discharge locations within one business day of the end of each measurable storm event.
- 8.L.7.3 *Inspections of Inactive Sites.* Inspect inactive landfills, open dumps, and land application sites at least quarterly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

**8.L.8 Additional Post-Authorization Documentation Requirements.**

8.L.8.1 *Recordkeeping and Internal Reporting.* Keep records with the SWPPP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

**8.L.9 Sector-Specific Benchmarks**

Table 8.L-1 identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to both the facility’s primary industrial activity and any co-located industrial activities, which describe the site’s activities.

Table 8.L-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration <sup>1</sup>
<b>Subsector L1.</b> All Landfill, Land Application Sites and Open Dumps (Industrial Activity Code “LF”)	Total Suspended Solids (TSS)	Reserved
<b>Subsector L2.</b> All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Industrial Activity Code “LF”)	Total Iron	1.0 mg/L

<sup>1</sup>Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 below).

**8.L.10. Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.L-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.L-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum

Table 8.L-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
	Total Zinc	0.20 mg/L, daily maximum
		0.11 mg/L, monthly avg. maximum
	pH	6.0 – 9.0 s.u.

<sup>1</sup> Monitor annually. As set forth at 40 CFR Part 445 Subpart B, these numeric limitations apply to contaminated stormwater discharges from MSWLFs that have not been closed in accordance with 40 CFR 258.60, and to contaminated stormwater discharges from those landfills that are subject to the provisions of 40 CFR Part 257 except for discharges from any of the following facilities:

- (a) Landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) Landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) Landfills operated in conjunction with CWT facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) Landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart M – Sector M – Automobile Salvage Yards.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.M.1 Covered Stormwater Discharges.**

The requirements in Subpart M apply to stormwater discharges associated with industrial activity from Automobile Salvage Yards as identified by the SIC Code specified under Sector M in Table C-1 of Appendix C of this permit.

**8.M.2 Additional Control Measures.**

8.M.2.1 *Spill and Leak Prevention Procedures.* (See also Part 2.1.1.4) Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means (such as storage indoors until drained) to prevent spills and leaks.

8.M.2.2 *Employee Training.* (See also Part 2.1.1.9) If the facility handles these materials, the employee training program shall address the proper handling (collection, storage, and disposal) of oil, used mineral spirits, antifreeze, mercury switches, and solvents.

8.M.2.3 *Management of Runoff.* (See also Part 2.1.1.6) The permittee shall implement effective controls to manage run-off. Consider the following or other equivalent practices: installation of berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); berms for uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage; installation of detention ponds; and installation of filtering devices and oil and water separators.

**8.M.3 Additional SWPPP Requirements.**

8.M.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

8.M.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following to contribute pollutants to stormwater discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

**8.M.4 Additional Inspection Requirements.** (See also Part 4.1)

Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect quarterly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect quarterly for signs of leakage all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

**8.M.5 Sector-Specific Benchmarks.** (See also Part 6 of the permit.)

<b>Table 8.M-1</b>		
<b>Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)</b>	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector M1. Automobile Salvage Yards (SIC 5015)</b>	Total Suspended Solids (TSS)	100 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

<b>Benchmark values based on hardness and receiving waterbody</b>		
<b>Water Hardness Range (mg/L)</b>	<b>For discharges to perennial and intermittent waterbodies</b>	<b>For discharges to ephemeral waterbodies</b>
	<b>Lead (mg/L)</b>	<b>Lead (mg/L)</b>
0-25	0.014	0.0293
25-50	0.030	0.0636
50-75	0.047	0.0995
75-100	0.065	0.1363
100-125	0.082	0.1736
125-150	0.100	0.2113
150-175	0.118	0.2492
175-200	0.136	0.2873
200-225	0.154	0.3255
225-250	0.172	0.3637
250-275	0.190	0.4020
275-300	0.209	0.4402
300-325	0.227	0.4784
325-350	0.245	0.5166
350-375	0.263	0.5547
375-400	0.281	0.5927

---

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.N.1 Covered Stormwater Discharges.

The requirements in Subpart N apply to stormwater discharges associated with industrial activity from Scrap Recycling and Waste Recycling facilities as identified by the SIC Code specified under Sector N in Table C-1 of Appendix C of the permit.

#### 8.N.2 Limitation on Coverage.

Separate permit requirements have been established for recycling facilities that only receive source-separated recyclable materials primarily from non-industrial and residential sources (i.e., common consumer products including paper, newspaper, glass, cardboard, plastic containers, and aluminum and tin cans). This includes recycling facilities commonly referred to as material recovery facilities (MRF).

- 8.N.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) Non-stormwater discharges from turnings containment areas are not authorized by this permit (see also Part 8.N.3.2.3). Discharges from containment areas in the absence of a storm event are prohibited unless covered by a separate AZPDES permit.

#### 8.N.3 Additional Control Measures.

- 8.N.3.1 *Scrap and Waste Recycling Facilities (Non-Source Separated, Non-liquid Recyclable Materials).* The requirements in this section pertain to facilities that receive, process, and conduct wholesale distribution of non-liquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both non-recyclable and recyclable materials. This section does not apply to facilities that accept recyclables only from primarily non-industrial and residential sources.

- 8.N.3.1.1 *Inbound Recyclable and Waste Material Control Program.* Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to the facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Part 8.N.3.2.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).

- 8.N.3.1.2 *Scrap and Waste Material Stockpiles and Storage (Outdoor).* Minimize contact of stormwater runoff with stockpiled materials, processed materials, and non-recyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms,

containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).

- 8.N.3.1.3 *Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage)*. Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. The permittee shall regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.
- 8.N.3.1.4 *Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage)*. Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.
- 8.N.3.1.5 *Scrap and Recyclable Waste Processing Areas*. Minimize surface runoff from coming in contact with scrap processing equipment. The permittee shall determine whether operations that generate visible amounts of particulate residue (e.g., shredding) and residual fluids come in contact with runoff. Such contact shall be minimized or prevented through good housekeeping, preventive maintenance, etc. The permittee shall: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; and (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches.

The permittee shall also implement one or more of the following (or other equivalent measures): (a) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir, (b) install containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (c) oil and water separators or sumps; (d) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (e) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); and (f) catch basin filters or sand filters.

- 8.N.3.1.6 *Scrap Lead-Acid Battery Program*. Properly handle, store, and dispose of scrap lead-acid batteries. The permittee shall implement one or more of the following control measure options (or other equivalent measures): (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate exposure of scrap lead-acid batteries to precipitation or runoff. Also, employee training for the management of scrap batteries shall be provided.

- 8.N.3.1.7 *Spill Prevention and Response Procedures.* (See also Part 2.1.1.4) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.
- 8.N.3.1.8 *Supplier Notification Program.* As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

8.N.3.2 Waste Recycling Facilities (Liquid Recyclable Materials).

- 8.N.3.2.1 *Waste Material Storage (Indoor).* Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The facility SWPPP may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. The permittee shall implement: (a) procedures for safe material handling (including labeling and marking); and (b) clean up of spills and leaks with dry absorbent materials, or a wet vacuum system.

The permittee shall implement one or both of the following control measure options (or other equivalent measures): (a) appropriate containment structures (trenching, curbing, gutters, etc.); and (b) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage shall be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate AZPDES wastewater permit or industrial user permit under the pretreatment program.

- 8.N.3.2.2 *Waste Material Storage (Outdoor).* Minimize contact between stored residual liquids and precipitation or runoff. The SWPPP may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil shall be in accordance with applicable sections of 40 CFR Part 112. The permittee shall implement one or more of the following control measure options (or other equivalent measures) to minimize contaminants in stormwater: (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.
- 8.N.3.2.3 *Trucks and Rail Car Waste Transfer Areas.* Implement effective measures to minimize pollutants in discharges from truck and rail car loading and unloading areas. Such measures may include: (a) clean up of minor spills and leaks resulting from the transfer of liquid wastes; (b) containment and diversionary structures to minimize contact with precipitation or runoff, and (c) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.
- 8.N.3.3 *Recycling Facilities (Source-Separated Materials).* The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.
  - 8.N.3.3.1 *Inbound Recyclable Material Control.* Minimize the chance of accepting non-recyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Implement one or more of the following control measures (or other equivalent measures): (a) provide information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials; (b) train drivers responsible for pickup of recycled material;



(c) clearly mark public drop-off containers regarding which materials can be accepted; and (d) reject non-recyclable wastes or household hazardous wastes at the source. The permittee shall also establish procedures for handling and disposal of non-recyclable material.

- 8.N.3.3.2 *Outdoor Storage.* Implement effective control measures to minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Implement one or more of the following control measures (or other equivalent measures): (a) provide totally enclosed drop-off containers for the public; (b) install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; and (e) provide covers over containment bins, dumpsters, and roll-off boxes.
- 8.N.3.3.3 *Indoor Storage and Material Processing.* Implement effective control measures to minimize the release of pollutants from indoor storage and processing areas. The permittee shall: (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the surface soils or to the storm sewer system, and (c) provide employee training on pollution prevention practices.
- 8.N.3.3.4 *Vehicle and Equipment Maintenance.* Implement effective control measures for areas where vehicle and equipment maintenance occur outdoors. The permittee shall implement one or more of the following control measure options (or other equivalent measures): (a) prohibit vehicle and equipment washwater from discharging to surface soils or the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) avoid topping off fuel tanks, (d) divert runoff from fueling areas, and (e) store lubricants and hydraulic fluids indoors. The permittee shall also establish spill prevention and clean-up procedures for fueling areas, and provide employee training on proper handling and storage of hydraulic fluids and lubricants.

#### **8.N.4 Additional SWPPP Requirements.**

- 8.N.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.
- 8.N.4.2 *Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities.* For any facility subject to Part 8.N.3.1.3, the SWPPP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

#### **8.N.5 Additional Inspection Requirements.**

- 8.N.5.1 *Inspections for Waste Recycling Facilities.* The inspections must be performed quarterly, pursuant to Part 4.1, and include, at a minimum, all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or stormwater runoff.

8.N.6 Sector-Specific Benchmarks. (See also Part 6.)

Table 8.N-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Recoverable Aluminum	0.75 mg/L
	Total Recoverable Copper <sup>1</sup>	Hardness Dependent
	Total Recoverable Iron	1.0 mg/L
	Total Recoverable Lead <sup>1</sup>	Hardness Dependent
	Total Recoverable Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody						
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies			For discharges to ephemeral waterbodies		
	Copper (mg/L)	Lead (mg/L)	Zinc (mg/L)	Copper (mg/L)	Lead (mg/L)	Zinc (mg/L)
0-25	0.0036	0.014	0.0362	0.0063	0.0293	0.344
25-50	0.0070	0.030	0.0651	0.0121	0.0636	0.618
50-75	0.0102	0.047	0.0918	0.0177	0.0995	0.871
75-100	0.0134	0.065	0.1170	0.0233	0.1363	1.112
100-125	0.0170	0.082	0.1417	0.0283	0.1736	1.343
125-150	0.0197	0.100	0.1652	0.0341	0.2113	1.568
150-175	0.0221	0.118	0.1883	0.0394	0.2492	1.787
175-200	0.0228	0.136	0.2108	0.0447	0.2873	2.001
200-225	0.0289	0.154	0.2329	0.0500	0.3255	2.211
225-250	0.0316	0.172	0.2547	0.0552	0.3637	2.417
250-275	0.0349	0.190	0.2761	0.0601	0.4020	2.620
275-300	0.0378	0.209	0.2972	0.0655	0.4402	2.821
300-325	0.0408	0.227	0.3181	0.0706	0.4784	3.019
325-350	0.0438	0.245	0.3387	0.0757	0.5166	3.214
350-375	0.0467	0.263	0.3591	0.0800	0.5547	3.408
375-400	0.0496	0.281	0.3793	0.0859	0.5927	3.599

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart O – Sector O – Steam Electric Generating Facilities.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.O.1 Covered Stormwater Discharges.**

The requirements in Subpart O apply to stormwater discharges associated with industrial activity from Steam Electric Power Generating Facilities as identified by the Activity Code specified under Sector O in Table C-1 of Appendix C.

**8.O.2 Industrial Activities Covered by Sector O.**

This permit authorizes stormwater discharges from the following industrial activities at Sector O facilities:

- 8.O.2.1 steam electric power generation using coal, natural gas, oil, nuclear energy, etc., to produce a steam source, including coal handling areas;
- 8.O.2.2 coal pile runoff, including effluent limitations established by 40 CFR Part 423; and
- 8.O.2.3 dual fuel facilities that could employ a steam boiler.

**8.O.3 Limitations on Coverage.**

8.O.3.1 *Prohibition of Non-Stormwater Discharges.* Non-stormwater discharges subject to effluent limitations guidelines are not authorized by this permit.

8.O.3.2 *Prohibition of Stormwater Discharges.* Stormwater discharges from the following are not covered by this permit:

- 8.O.3.2.1 Ancillary facilities (e.g., fleet centers and substations) that are not contiguous to a steam electric power generating facility;
- 8.O.3.2.2 Gas turbine facilities (providing the facility is not a dual-fuel facility that includes a steam boiler), and combined-cycle facilities where no supplemental fuel oil is burned (and the facility is not a dual-fuel facility that includes a steam boiler); and
- 8.O.3.2.3 Cogeneration (combined heat and power) facilities utilizing a gas turbine.

**8.O.4 Additional Control Measures. (See also Part 2.1.1.2)**

The following good housekeeping measures are required in addition to Part 2.1.1.2:

- 8.O.4.1 *Fugitive Dust Emissions.* Minimize fugitive dust emissions from coal handling areas. The permittee shall implement effective controls to minimize the tracking of coal dust offsite, such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.
- 8.O.4.2 *Delivery Vehicles.* The permittee shall implement effective controls to minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site such as procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.
- 8.O.4.3 *Fuel Oil Unloading Areas.* The permittee shall implement effective controls to minimize contamination of precipitation or surface runoff from fuel oil unloading areas, such as using containment curbs in unloading areas, having personnel familiar with spill prevention and

response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

- 8.O.4.4 *Chemical Loading and Unloading.* The permittee shall implement effective controls to minimize contamination of precipitation or surface runoff from chemical loading and unloading areas, such as: using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, loading and unloading in covered areas and storing chemicals indoors.
- 8.O.4.5 *Miscellaneous Loading and Unloading Areas.* The permittee shall implement effective controls to minimize contamination of precipitation or surface runoff from loading and unloading areas, such as: covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.
- 8.O.4.6 *Liquid Storage Tanks.* The permittee shall implement effective controls to minimize contamination of surface runoff from above-ground liquid storage tanks, such as using protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.
- 8.O.4.7 *Large Bulk Fuel Storage Tanks.* The permittee shall implement effective controls to minimize contamination of surface runoff from large bulk fuel storage tanks including the use of containment berms or other equivalent measures. The permittee shall also comply with applicable State and Federal laws, including SPCC Plan requirements.
- 8.O.4.8 *Spill Reduction Measures.* The permittee shall implement effective controls to minimize the potential for an oil or chemical spill. These shall be detailed in the SWPPP or the permittee may reference the appropriate part of the facility's SPCC plan if applicable. As part of the routine facility inspection the permittee shall inspect the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to stormwater, and make any necessary repairs immediately.
- 8.O.4.9 *Oil-Bearing Equipment in Switchyards.* The permittee shall implement effective controls to minimize contamination of surface runoff from oil-bearing equipment in switchyard areas, such as the use of level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.
- 8.O.4.10 *Residue-Hauling Vehicles.* The permittee shall inspect all residue-hauling vehicles for proper load covering, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.
- 8.O.4.11 *Ash Loading Areas.* The permittee shall implement effective controls to reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.
- 8.O.4.12 *Areas Adjacent to Disposal Ponds or Landfills.* The permittee shall implement effective controls to minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills, reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.
- 8.O.4.13 *Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites.* The permittee shall implement effective controls to minimize the potential for contamination of runoff from these areas.

**8.O.5 Additional SWPPP Requirements.**

- 8.O.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).
- 8.O.5.2 *Documentation of Good Housekeeping Measures.* The permittee shall document in the facility's SWPPP the good housekeeping measures implemented to meet the effluent limits in Part 8.O.4.

**8.O.6 Additional Inspection Requirements.**

- 8.O.6.1 *Comprehensive Site Compliance Inspection.* (See also Part 4.3) As part of the facility's inspection, inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

**8.O.7 Sector-Specific Benchmarks**

Table 8.O-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to both the facility's primary industrial activity and any co-located industrial activities, which describe the site's activities.

Table 8.O-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector O1. Steam Electric Generating Facilities (Industrial Activity Code "SE")	Total Iron	1.0 mg/L

**8.O.8 Effluent Limitations Based on Effluent Limitations Guidelines (See also Part 6.2.2.1.)**

Table 8.O-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.O-2 <sup>1</sup>		
Industrial Activity	Parameter	Effluent Limitation
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/L <sup>2</sup>
	pH	6.0 – 9.0 s.u.

<sup>1</sup> Monitor annually.

<sup>2</sup> If the facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart P – Sector P – Land Transportation and Warehousing.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.P.1 Covered Stormwater Discharges.**

The requirements in Subpart P apply to stormwater discharges associated with industrial activity from Land Transportation and Warehousing facilities as identified by the SIC Codes specified under Sector P in Table C-1 of Appendix C of the permit.

**8.P.2 Limitation on Coverage**

8.P.2.1 *Prohibited Discharges* (see also Parts 1.1.4 and 8.P.4.4) This permit does not authorize the discharge of vehicle/equipment/surface washwater, including tank cleaning operations. Such discharges must be legally disposed in a permitted facility, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

**8.P.3 Additional Control Measures.**

8.P.3.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2) In addition to the Good Housekeeping requirements in Part 2.1.1.2, the permittee shall perform the following:

- 8.P.3.1.1 *Vehicle and Equipment Storage Areas.* Minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Implement one or more of the following (or other equivalent measures): use of drip pans under vehicles/equipment; indoor storage of vehicles and equipment; install berms or dikes; use of absorbents; install roofs or cover storage areas; and clean pavement surfaces to remove oil and grease.
- 8.P.3.1.2 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Implement one or more of the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.
- 8.P.3.1.3 *Material Storage Areas.* Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., “Used Oil,” “Spent Solvents,” etc.). Implement one or more of the following (or other equivalent measures): storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.
- 8.P.3.1.4 *Vehicle and Equipment Cleaning Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. Implement one or more of the following (or other equivalent measures): performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or other equivalent measures.
- 8.P.3.1.5 *Vehicle and Equipment Maintenance Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. Implement one or more of the following (or other equivalent measures): performing maintenance

activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to maintenance areas.

8.P.3.1.6 *Locomotive Sanding (Loading Sand for Traction) Areas.* Implement one or more of the following (or other equivalent measures): covering sanding areas; minimizing stormwater run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by stormwater.

8.P.3.2 *Employee Training.* (See also Part 2.1.1.9) Train personnel at least once a year and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

**8.P.4 Additional SWPPP Requirements.**

8.P.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

8.P.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the stormwater conveyance system(s); and fueling areas. Describe these activities in the SWPPP.

8.P.4.3 *Description of Good Housekeeping Measures.* The permittee shall document in the facility's SWPPP the good housekeeping measures implemented, consistent with Part 8.P.3.

8.P.4.4 *Vehicle and Equipment Washwater Requirements.* In accordance with Part 8.P.2.1, the permittee shall document in the SWPPP the methods of disposal of vehicle and equipment washwater generated at the facility and the name of any permits required by that method.

**8.P.5 Additional Inspection Requirements. (See also Part 4.1) Inspect all the following areas/activities:**

- Storage areas for vehicles/equipment awaiting maintenance;
- Fueling areas;
- Indoor and outdoor vehicle/equipment maintenance areas
- Material storage areas
- Vehicle/equipment cleaning areas; and
- Loading/unloading areas.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart Q – Sector Q – Water Transportation.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.Q.1 Covered Stormwater Discharges.

The requirements in Subpart Q apply to stormwater discharges associated with industrial activity from Water Transportation facilities as identified by the SIC Codes specified under Sector Q in Table C-1 of Appendix C of the permit.

#### 8.Q.2 Limitations on Coverage.

8.Q.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

#### 8.Q.3 Additional Control Measures.

8.Q.3.1 *Good Housekeeping Measures.* The permittee shall implement the following good housekeeping measures in addition to the requirements of Part 2.1.1.2:

- 8.Q.3.1.1 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate AZPDES permit. Collect or contain the discharges from the pressure washing area so that they are not co-mingled with stormwater discharges authorized by this permit.
- 8.Q.3.1.2 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.
- 8.Q.3.1.3 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and install containment or enclosure for those stored outdoors when feasible. If abrasive blasting is performed, implement control measures for the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.
- 8.Q.3.1.4 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Implement one or more of the following control measure options (or other equivalent measures): perform all maintenance activities indoors, maintain an organized inventory of materials used in the shop, drain all parts of fluid prior to disposal, prohibit the practice of hosing down the shop floor, use dry cleanup methods, and properly dispose or treat and/or recycle stormwater runoff collected from the maintenance area.



- 8.Q.3.1.5 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Implement one or more of the following control measure options (or other equivalent measures): cover fueling areas, use spill and overflow protection, mix paints and solvents in a designated area (preferably indoors or under a shed), and minimize runoff of stormwater to material handling areas.
- 8.Q.3.1.6 *Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Clean accessible areas of the drydock prior to flooding, and perform final cleanup following removal of the vessel and raising the dock. Implement effective procedures for cleaning up oil, grease, and fuel spills occurring on the drydock, such as: sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.
- 8.Q.3.2 *Employee Training.* (See also Part 2.1.1.9) Include the following (as applicable) in an employee training program: used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.
- 8.Q.3.3 *Preventive Maintenance.* (See also Part 2.1.1.3) As part of the facility's preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system). The permittee shall also routinely inspect and test facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.
- 8.Q.4 Additional SWPPP Requirements.**
- 8.Q.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).
- 8.Q.4.2 *Summary of Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

**8.Q.5 Additional Inspection Requirements. (See also Part 4.1)**

Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

8.Q.6 Sector-Specific Benchmarks. (See also Part 6.)

Table 8.Q-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Lead <sup>1</sup>	Hardness Dependent
	Total Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, "Calculating Hardness in Receiving Waters for Hardness Dependent Metals," for methodology), in accordance with Part 6.2.1.1, to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody				
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies		For discharges to ephemeral waterbodies	
	Lead (mg/L)	Zinc (mg/L)	Lead (mg/L)	Zinc (mg/L)
0-25	0.014	0.0362	0.0293	0.344
25-50	0.030	0.0651	0.0636	0.618
50-75	0.047	0.0918	0.0995	0.871
75-100	0.065	0.1170	0.1363	1.112
100-125	0.082	0.1417	0.1736	1.343
125-150	0.100	0.1652	0.2113	1.568
150-175	0.118	0.1883	0.2492	1.787
175-200	0.136	0.2108	0.2873	2.001
200-225	0.154	0.2329	0.3255	2.211
225-250	0.172	0.2547	0.3637	2.417
250-275	0.190	0.2761	0.4020	2.620
275-300	0.209	0.2972	0.4402	2.821
300-325	0.227	0.3181	0.4784	3.019
325-350	0.245	0.3387	0.5166	3.214
350-375	0.263	0.3591	0.5547	3.408
375-400	0.281	0.3793	0.5927	3.599

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart R – Sector R – Ship and Boat Building and Repair Yards.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.R.1 Covered Stormwater Discharges.**

The requirements in Subpart R apply to stormwater discharges associated with industrial activity from Ship and Boat Building and Repair Yards as identified by the SIC Codes specified under Sector R in Table C-1 of Appendix C of the permit.

**8.R.2 Limitations on Coverage.**

8.R.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: discharges containing bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

**8.R.3 Additional Control Measures.**

8.R.3.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2)

8.R.3.1.1 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate AZPDES permit.

8.R.3.1.2 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharging into the receiving water or the storm sewer systems. The permittee shall contain all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). If deposits of abrasive blasting debris and paint chips reach stormwater conveyances, the permittee shall remove and properly dispose of all visible contaminants.

8.R.3.1.3 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, properly store and dispose of spent abrasive materials generated at the facility. Implement an inventory control plan to limit the presence of potentially hazardous materials onsite.

8.R.3.1.4 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Implement one or more of the following control measure options (or other equivalent measures): perform all maintenance activities indoors, maintain an organized inventory of materials used in the shop, drain all parts of fluid prior to disposal, prohibit the practice of hosing down the shop floor, use dry cleanup methods, and properly dispose, or treat and/or recycle stormwater runoff collected from the maintenance area.

8.R.3.1.5 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Implement one or more of the following control measure options (or other equivalent measures): cover fueling areas, use spill and overflow protection, mix paints and solvents in a designated area

(preferably indoors or under a shed), and minimize stormwater run-on to material handling areas.

8.R.3.1.6 *Drydock Activities*. Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Clean accessible areas of the drydock prior to flooding and perform final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock, such as the following (or other equivalent measures): sweep rather than hose off debris and spent blasting material from accessible areas of the drydock prior to flooding; and make absorbent materials and oil containment booms readily available to clean up and contain any spills.

8.R.3.2 *Employee Training*. (See also Part 2.1.1.9) Include the following (as applicable) in an employee training program: used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

8.R.3.4 *Preventive Maintenance*. (See also Part 2.1.1.3) As part of the facility's preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspect and test facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

#### **8.R.4 Additional SWPPP Requirements.**

8.R.4.1 *Drainage Area Site Map*. (See also Part 5.1.2) Document in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

8.R.4.2 *Potential Pollutant Sources*. (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

8.R.4.3 *Documentation of Good Housekeeping Measures*. Document in the SWPPP any good housekeeping measures implemented to meet the effluent limits in Part 8.R.3.

8.R.4.3.1 *Blasting and Painting Areas*. Document in the SWPPP any standard operating practices relating to blasting and painting (e.g., prohibit uncontained blasting and painting over open water and prohibit blasting and painting during windy conditions, which can render containment ineffective).

8.R.4.3.2 *Storage Areas*. Specify in the SWPPP which materials are stored indoors, and implement containment or enclosure for those stored outdoors when feasible.

#### **8.R.5 Additional Inspection Requirements.**

(See also Part 4.1) Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart S – Sector S – Air Transportation.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.S.1 Covered Stormwater Discharges.

The requirements in Subpart S apply to stormwater discharges associated with industrial activity from Air Transportation facilities identified by the SIC Codes specified under Sector S in Table C-1 of Appendix C of the permit.

#### 8.S.2 Limitation on Coverage

8.S.2.1 *Limitations on Coverage.* This permit authorizes stormwater discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

*Note:* "deicing" will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

8.S.2.2 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4 and Part 8.S.5.3) This permit does not authorize the discharge of aircraft, ground vehicle, runway and equipment washwaters; or the dry weather discharge of deicing chemicals. Such discharges must be covered by separate AZPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.

#### 8.S.3 Additional Control Measures.

8.S.3.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2)

8.S.3.1.1 *Aircraft, Ground Vehicle and Equipment Maintenance Areas.* Minimize the contamination of stormwater runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangars). Implement one or more of the following control measure options (or other equivalent measures): perform maintenance activities indoors; maintain an organized inventory of material used in the maintenance areas; drain all parts of fluids prior to disposal; prohibit the practice of hosing down the apron or hanger floor; use dry cleanup methods; and collect the stormwater runoff from the maintenance area and properly dispose or treat and recycling.

8.S.3.1.2 *Aircraft, Ground Vehicle and Equipment Cleaning Areas.* (See also Part 8.S.3.6) Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of stormwater runoff from cleaning areas.

8.S.3.1.3 *Aircraft, Ground Vehicle and Equipment Storage Areas.* Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of stormwater runoff from these storage areas. Implement one or more of the following control measure options, including any BMPs (or other equivalent measures): store aircraft and ground vehicles indoors when feasible; use drip pans for the collection of fluid leaks; and install perimeter drains, dikes or berms around storage areas.

- 8.S.3.1.4 Material Storage Areas. Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of stormwater. Also plainly label the vessels (e.g., “used oil,” “Contaminated Jet A,” etc.). Minimize contamination of precipitation/runoff from these areas. Implement one or more of the following control measure options (or other equivalent measures): store materials indoors when feasible; store waste materials in a centralized location; and install berms/dikes around storage areas.
- 8.S.3.1.5 Airport Fuel System and Fueling Areas. Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Implement one or more of the following control measure options (or other equivalent measures): spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); use only dry cleanup methods; and collect stormwater runoff for disposal or on-site retention.
- 8.S.3.1.6 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.
- 8.S.3.1.6.1 Runway Deicing Operation: Minimize contamination of stormwater runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety. The permittee shall also evaluate whether the following control measures (or other equivalent measures) are feasible: metered application of chemicals; pre-wetting dry chemical constituents prior to application; install a runway ice detection system; implement anti-icing operations as a preventive measure against ice buildup.
- 8.S.3.1.6.2 Aircraft Deicing Operations. Minimize contamination of stormwater runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority).
- Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets for MD-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.
- 8.S.3.1.7 Management of Runoff. (See also Part 2.1.1.6) Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Implement one or more of the following control measure options (or other equivalent measures): use a dedicated deicing facility with a runoff collection/ recovery system; use vacuum/collection trucks; store contaminated stormwater/deicing fluids in tanks and release controlled amounts to a publicly owned treatment works; or direct contaminated runoff into lined

impoundments for evaporation (be aware of attracting wildlife that may prove hazardous to flight operations). Recover deicing materials when they are applied during non-precipitation events (e.g., cover storm sewer inlets, use booms, install absorptive interceptors in the drains, etc.) to prevent these from later becoming a source of stormwater contamination. Recycle used deicing fluid whenever possible.

8.S.3.2 *Deicing Season.* The permittee shall determine the seasonal timeframe (e.g., December-February, October - March, etc.) during which deicing activities typically occur at the facility. The permittee shall implement control measures, including any BMPs, facility inspections and monitoring with particular emphasis throughout the defined deicing season. When the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea are met, the permittee shall obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH. This sampling timeframe shall occur during the deicing season identified above. See also Part 8.S.7.

#### **8.S.4 Additional Corrective Action Deadline Requirements. (See also Parts 3.2 and 3.3)**

An airport authority that has jointly prepared a SWPPP with its tenants (see Part 8.S.5) shall document the discovery of any of the conditions listed in Part 3.1 within 72 hours of making such discovery. Within 30 days of such discovery, the permittee (airport authority) shall notify affected tenants and document any corrective action(s) taken or to be taken (either by the tenant or the airport authority) to eliminate or further investigate the condition, or if no corrective action is needed, the basis for that determination. This timeline applies only to airports with co-permittees that jointly prepare SWPPPs and file separate NOIs. Individual airport tenants that both separately prepare a SWPPP and file an NOI shall comply with the timelines required in Part 3.2.

#### **8.S.5 Additional SWPPP Requirements.**

An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. If an airport tenant obtains authorization under this permit and develops a SWPPP for discharges from its own areas of the airport, prior to authorization, that SWPPP must be coordinated and integrated with the SWPPP for the entire airport. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in stormwater discharges associated with industrial activity.

8.S.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.

8.S.5.2 *Potential Pollutant Sources.* (See also Part 5.1.3) In the facility's inventory of exposed materials, the SWPPP shall describe the potential for the following activities and facility areas to contribute pollutants to stormwater discharges:

- Aircraft, runway, ground vehicle and equipment maintenance and cleaning; and
- Aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps).

When deicing chemicals are used, the permittee shall maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of the permittee's knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the

above information to the airport authority for inclusion with any comprehensive airport SWPPPs.

8.S.5.3 *Vehicle and Equipment Washwater Requirements.* In accordance with Part 8.S.2.2, the permittee shall document in the SWPPP the methods of disposal of vehicle and equipment washwater generated at the facility and the name of any permits required by that method.

8.S.5.4 *Documentation of Control Measures Used for Management of Runoff:* Document in the SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

**8.S.6 Additional Inspection Requirements.**

8.S.6.1 *Inspections.* (See also Part 4.1) At a minimum conduct routine facility inspections at least monthly during the deicing season. If the facility needs to deice before or after this period, expand the monthly inspections to include all months during which deicing chemicals may be used. The Director may specifically require an increase in inspection frequencies.

8.S.6.2 *Comprehensive Site Inspections.* (See also Part 4.3) Using only qualified personnel, conduct the annual site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct the inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

**8.S.7 Sector-Specific Benchmarks. (See also Part 6.)**

Monitor per the requirements in Table 8.S-1.

Table 8.S-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor the first four parameters in those outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581).	Biochemical Oxygen Demand (BOD <sub>5</sub> ) <sup>1</sup>	30 mg/L
	Chemical Oxygen Demand (COD) <sup>1</sup>	120 mg/L
	Ammonia <sup>1</sup>	2.14 mg/L
	pH <sup>1</sup>	6.0 – 9.0 s.u.

<sup>1</sup> These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 8.S.3.2 when deicing activities are occurring.



## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart T – Sector T – Treatment Works.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.T.1 Covered Stormwater Discharges.

The requirements in Subpart T apply to stormwater discharges associated with industrial activity from Treatment Works as identified by the Activity Code specified under Sector T in Table C-1 of Appendix C of the permit.

#### 8.T.2 Industrial Activities Covered by Sector T.

The requirements listed under this part apply to all existing point source stormwater discharges associated with the following activities:

- 8.T.2.1 Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge; that are located within the confines of a facility with a design flow of 1.0 million gallons per day (MGD) or more; or are required to have an approved pretreatment program under 40 CFR Part 403.
- 8.T.2.2 The following are not required to have permit coverage: farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located within the facility, or areas that are in compliance with Section 405 of the CWA.

#### 8.T.3 Limitations on Coverage.

- 8.T.3.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4 and Part 8.T.5.3) Sanitary and industrial wastewater and equipment and vehicle washwater are not authorized by this permit.

#### 8.T.4 Additional Control Measures.

- 8.T.4.1 *Control Measures.* (See also the non-numeric effluent limits in Part 2.1.1) In addition to the other control measures, implement the following, or other equivalent measures when feasible: routing stormwater to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).
- 8.T.4.2 *Employee Training.* (See also Part 2.1.1.9) Include the following (as applicable) in an employee training program: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

#### 8.T.5 Additional SWPPP Requirements.

- 8.T.5.1 *Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.
- 8.T.5.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them, as

applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

8.T.5.3 *Wastewater and Washwater Requirements.* In accordance with Part 8.T.3.1, the permittee shall document in the SWPPP the methods of disposal of vehicle and equipment washwater generated at the facility and the name of any permits required by that method.

**8.T.6 Additional Inspection Requirements.**

(See also Part 4.1) Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart U – Sector U – Food and Kindred Products.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.U.1 Covered Stormwater Discharges.

The requirements in Subpart U apply to stormwater discharges associated with industrial activity from Food and Kindred Products facilities as identified by the SIC Codes specified in Table C-1 of Appendix C of the permit.

#### 8.U.2 Limitations on Coverage.

8.U.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: discharges containing boiler blowdown, cooling tower overflow and blowdown, ammonia refrigeration purging, and vehicle washing and clean-out operations.

#### 8.U.3 Additional Control Measures.

8.U.3.1 *Employee Training.* (See also Part 2.1.1.9) Include pest control in the facility's employee training program.

#### 8.U.4 Additional SWPPP Requirements.

8.U.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding pens; spoiled product; and broken product container storage areas.

8.U.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

#### 8.U.5 Additional Inspection Requirements.

(See also Part 4.1) Inspect on a quarterly basis, at a minimum, the following areas where the potential for exposure to stormwater exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal holding pens; staging areas; and air pollution control equipment.

8.U.6 Sector-Specific Benchmarks. (See also Part 6.)

Table 8.U-1		
Subsector (Facility discharges may be subject to requirements for more than one Sector / Subsector)	Parameter	Benchmark Monitoring Concentration
<b>Subsector U1.</b> Grain Mill Products (SIC 2041-2048)	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector U2.</b> Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	Reserved
	Total Suspended Solids (TSS)	100 mg/L

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.V.1 Covered Stormwater Discharges.

The requirements in Subpart V apply to stormwater discharges associated with industrial activity from Textile Mills, Apparel, and Other Fabric Product manufacturing as identified by the SIC Codes specified under Sector V in Table C-1 of Appendix C of the permit.

#### 8.V.2 Limitations on Coverage.

8.V.2.1 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit:

- Wastewater (e.g., wastewater resulting from wet processing or from any processes relating to the production process);
- Reused or recycled water; and
- Waters used in cooling towers.

A facility with these types of discharges shall be covered under a separate AZPDES permit.

#### 8.V.3 Additional Control Measures.

8.V.3.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2)

8.V.3.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Implement an inventory control plan to prevent excessive purchasing of potentially hazardous substances. If storing empty chemical drums or containers, ensure that the drums and containers are clean and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.

8.V.3.1.2 *Material Handling Areas.* Minimize contamination of stormwater runoff from material handling operations and areas. Implement one or more of the following (or other equivalent measures): use spill and overflow protection; cover fueling areas; and cover or enclose areas where the transfer of material may occur. When applicable, replace or repair leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.

8.V.3.1.3 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Implement one or more of the following (or other equivalent measures): cover the fueling area, use spill and overflow protection, minimize run-on of stormwater to the fueling areas, use dry cleanup methods, and dispose, treat and/or recycling stormwater runoff collected from the fueling area.

8.V.3.1.4 *Above-Ground Storage Tank Area.* Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Implement one or more of the following (or other equivalent measures): regular cleanup of these areas; including tanks, piping and valves; minimize runoff of stormwater from adjacent areas; restrict access to the area; insert filters in adjacent catch basins; provide absorbent booms in unbermed fueling areas; use dry cleanup

methods; and permanently seal drains within critical areas that may discharge to a storm drain.

8.V.3.2 *Employee Training.* (See also Part 2.1.1.9) Include the following (as applicable) in an employee training program: use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

**8.V.4 Additional SWPPP Requirements.**

8.V.4.1 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the facility's SWPPP the following additional sources and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

8.V.4.2 *Description of Good Housekeeping Measures for Material Storage Areas.* Document in the SWPPP the facility's containment area or enclosure for materials stored outdoors in connection with Part 8.V.3.1.1 above.

**8.V.5 Additional Inspection Requirements.**

(See also Part 4.1) Inspect, at least monthly, the following activities and areas: transfer and transmission lines, spill prevention, good housekeeping practices, management of process waste products, and all structural and nonstructural stormwater management practices.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart W – Sector W – Furniture and Fixtures.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.W.1 Covered Stormwater Discharges.**

The requirements in Subpart W apply to stormwater discharges associated with industrial activity from Furniture and Fixtures facilities as identified by the SIC Codes specified under Sector W in Table C-1 of Appendix C of the permit.

**8.W.2 Additional SWPPP Requirements.**

8.W.2.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: material storage (including tanks or other vessels used for liquid or waste storage) areas; outdoor material processing areas; areas where wastes are treated, stored, or disposed; access roads; and rail spurs.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart X – Sector X – Printing and Publishing.

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.X.1 Covered Stormwater Discharges.

The requirements in Subpart X apply to stormwater discharges associated with industrial activity from Printing and Publishing facilities as identified by the SIC Codes specified under Sector X in Table C-1 of Appendix C of the permit.

#### 8.X.2 Additional Control Measures.

##### 8.X.2.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2)

8.X.2.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Implement an inventory control plan to prevent excessive purchasing of potentially hazardous substances.

8.X.2.1.2 *Material Handling Area.* Minimize contamination of stormwater runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Implement one or more of the following (or other equivalent measures): using spill and overflow protection, cover fueling areas, and cover or enclose areas where the transfer of materials may occur. When applicable, replace or repair leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.

8.X.2.1.3 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Implement one or more of the following (or other equivalent measures): cover the fueling area, use spill and overflow protection, minimize runoff of stormwater to the fueling areas, use dry cleanup methods, and properly dispose, treat and/or recycling stormwater runoff collected from the fueling area.

8.X.2.1.4 *Above Ground Storage Tank Area.* Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Implement one or more of the following (or other equivalent measures): regularly clean these areas, explicitly address tanks, piping and valves in the facility's SPCC program, minimize stormwater runoff from adjacent areas, restrict access to the area, insert filters in adjacent catch basins, provide absorbent booms in unbermed fueling areas, use dry cleanup methods, and permanently seal drains within critical areas that may discharge to a storm drain.

8.X.2.2 *Employee Training.* (See also Part 2.1.1.9) Include the following (as applicable) in an employee training program: spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

#### 8.X.3 Additional SWPPP Requirements.

8.X.3.1 *Description of Good Housekeeping Measures for Material Storage Areas.* In connection with Part 8.X.2.1.1, describe in the SWPPP the containment area or enclosure for materials stored outdoors.



**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.Y.1 Covered Stormwater Discharges.**

The requirements in Subpart Y apply to stormwater discharges associated with industrial activity from Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries facilities as identified by the SIC Codes specified under Sector Y in Table C-1 of Appendix C of the permit.

**8.Y.2 Additional Control Measures.**

8.Y.2.1 *Controls for Rubber Manufacturers.* (See also Part 2.1.1) Minimize the discharge of zinc in the facility’s stormwater discharges. Parts 8.Y.2.1.1 to 8.Y.2.1.5 give possible sources of zinc to be reviewed and list some specific control measures for implementation (or their equivalents). Other general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring airspace between the container and the cover to minimize “puffing” losses when the container is opened, and using automatic dispensing and weighing equipment.

8.Y.2.1.1 *Zinc Bags.* Ensure proper handling and storage of zinc bags at the facility. Include the following (as applicable) in an employee training program: the handling and storage of zinc bags, indoor storage of zinc bags, and cleanup of zinc spills without washing the zinc into the storm drain. Consider the use of 2,500-pound sacks of zinc rather than 50- to 100-pound sacks.

8.Y.2.1.2 *Dumpsters.* Minimize discharges of zinc from dumpsters. Implement the following control measures: cover and line dumpsters containing zinc bags or residue or move the dumpster indoors.

8.Y.2.1.3 *Dust Collectors and Baghouses.* Minimize contributions of zinc to stormwater from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

8.Y.2.1.4 *Grinding Operations.* Minimize contamination of stormwater as a result of dust generation from rubber grinding operations, such as installing a dust collection system.

8.Y.2.1.5 *Zinc Stearate Coating Operations.* Minimize the potential for stormwater contamination from drips and spills of zinc stearate slurry that may be released to the storm drain, such as using alternative compounds to zinc stearate.

8.Y.2.2 *Controls for Plastic Products Manufacturers.* Minimize the discharge of plastic resin pellets in the facility’s stormwater discharges. Implement the following control measures (or other equivalent measures) minimize spills, clean up spills promptly and thoroughly, train employees on proper handling, and recapture pellets when possible.

**8.Y.3 Additional SWPPP Requirements.**

8.Y.3.1 *Potential Pollutant Sources for Rubber Manufacturers.* (See also Part 5.1.3) Document in the SWPPP the use of zinc at the facility and the possible pathways through which zinc may be discharged in stormwater runoff.

8.Y.4 Sector-Specific Benchmarks. (See also Part 6.)

Table 8.Y-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Y1. Rubber Products Manufacturing (SIC 3011, 3021, 3052, 3053, 3061, 3069)	Total Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 6.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

Benchmark values based on hardness and receiving waterbody		
Water Hardness Range (mg/L)	For discharges to perennial and intermittent waterbodies	For discharges to ephemeral waterbodies
	Zinc (mg/L)	Zinc (mg/L)
0-25	0.0362	0.344
25-50	0.0651	0.618
50-75	0.0918	0.871
75-100	0.1170	1.112
100-125	0.1417	1.343
125-150	0.1652	1.568
150-175	0.1883	1.787
175-200	0.2108	2.001
200-225	0.2329	2.211
225-250	0.2547	2.417
250-275	0.2761	2.620
275-300	0.2972	2.821
300-325	0.3181	3.019
325-350	0.3387	3.214
350-375	0.3591	3.408
375-400	0.3793	3.599

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart Z – Sector Z – Leather Tanning and Finishing.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.Z.1 Covered Stormwater Discharges.**

The requirements in Subpart Z apply to stormwater discharges associated with industrial activity from Leather Tanning and Finishing facilities as identified by the SIC Code specified under Sector Z in Table C-1 of Appendix C of the permit.

**8.Z.2 Additional Control Measures.**

**8.Z.2.3 Good Housekeeping Measures.** (See also Part 2.1.1.2)

- 8.Z.2.3.1 *Storage Areas for Raw, Semi-processed, or Finished Tannery By-products.* Minimize contamination of stormwater runoff from pallets and bales of raw, semi-processed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protect outdoor storage areas with polyethylene wrapping, tarpaulins, roofed storage, etc. When feasible place materials on an impermeable surface and enclose or install berms (or other equivalent measures) around the area to prevent stormwater run-on and runoff.
- 8.Z.2.3.2 *Material Storage Areas.* Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) and minimize contact of such materials with stormwater.
- 8.Z.2.3.3 *Buffing and Shaving Areas.* Minimize contamination of stormwater runoff with leather dust from buffing and shaving areas by implementing dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.
- 8.Z.2.3.4 *Receiving, Unloading, and Storage Areas.* Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, implement the following (or other equivalent measures): cover all hides and chemical supplies, divert drainage to the process sewer, or place berms or curbs around the area to prevent stormwater runoff.
- 8.Z.2.3.5 *Outdoor Storage of Contaminated Equipment.* Minimize contact of stormwater with contaminated equipment. Implement the following (or other equivalent measures): clean thoroughly prior to storage, or cover equipment, or divert drainage to the process sewer.
- 8.Z.2.3.6 *Waste Management.* Minimize contamination of stormwater runoff from waste storage areas. Implement the following (or other equivalent measures): cover dumpsters or move waste management activities indoors, cover waste piles with temporary covering material such as tarpaulins or polyethylene, and minimize stormwater runoff by enclosing the area or placing berms around the area.

**8.Z.3 Additional SWPPP Requirements.**

- 8.Z.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the facility’s SWPPP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.

8.Z.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following sources and activities that have potential pollutants associated with them (as appropriate): temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

## Part 8 – Sector-Specific Requirements for Industrial Activity

### Subpart AA – Sector AA – Fabricated Metal Products

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

#### 8.AA.1 Covered Stormwater Discharges.

The requirements in Subpart AA apply to stormwater discharges associated with industrial activity from Fabricated Metal Products facilities as identified by the SIC Codes specified under Sector AA in Table C-1 of Appendix C of the permit.

#### 8.AA.2 Additional Control Measures.

##### 8.AA.2.1 *Good Housekeeping Measures.* (See also Part 2.1.1.2)

8.AA.2.1.1 *Raw Steel Handling Storage.* Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

8.AA.2.1.2 *Paints and Painting Equipment.* Minimize exposure of paint and painting equipment to stormwater.

##### 8.AA.2.2 *Spill Prevention and Response Procedures.* (See also Part 2.1.1.4) The permittee shall ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas shall be addressed:

8.AA.2.2.1 *Metal Fabricating Areas.* Maintain clean, dry, orderly conditions in these areas. Use dry clean-up techniques where feasible.

8.AA.2.2.2 *Storage Areas for Raw Metal.* Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Maintain storage areas so that there is easy access in the event of a spill, and label stored materials to aid in identifying spill contents.

8.AA.2.2.3 *Metal Working Fluid Storage Areas.* Minimize the potential for stormwater contamination from storage areas for metal working fluids.

8.AA.2.2.4 *Cleaners and Rinse Water.* Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

8.AA.2.2.5 *Lubricating Oil and Hydraulic Fluid Operations.* Minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations. Use monitoring equipment or other devices to detect and control leaks and overflows. Install perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures if any operations occur outside.

8.AA.2.2.6 *Chemical Storage Areas.* Minimize stormwater contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

##### 8.AA.2.3 *Spills and Leaks.* (See also Part 5.1.3.3) In the facility's spill prevention and response procedures, required by Part 2.1.1.4, determine whether chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes are

present. If present, ensure the spill prevention and response procedures specifically address these chemicals.

**8.AA.3 Additional SWPPP Requirements.**

8.AA.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the facility’s SWPPP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

8.AA.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

**8.AA.4 Additional Inspection Requirements**

8.AA.4.1 *Inspections.* (See also Part 4) At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas.

8.AA.4.2 *Comprehensive Site Inspections.* (See also Part 4.3) As part of the facility’s inspection, also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

**8.AA.5 Sector-Specific Benchmarks. (See also Part 6.)**

Table 8.AA-1		
Subsector (Facility discharges may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector AA1. Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Total Zinc <sup>1</sup>	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	Reserved
Subsector AA2. Fabricated Metal Coating and Engraving (SIC 3479)	Total Zinc <sup>1</sup>	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	Reserved

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (see Appendix D, “Calculating Hardness in Receiving Waters for Hardness Dependent Metals,” for methodology), in accordance with Part 6.2.1.1, to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments. Hardness Dependent Benchmarks follow in the table below:

<b>Benchmark values based on hardness and receiving waterbody</b>		
<b>Water Hardness Range (mg/L)</b>	<b>For discharges to perennial and intermittent waterbodies</b>	<b>For discharges to ephemeral waterbodies</b>
	<b>Zinc (mg/L)</b>	<b>Zinc (mg/L)</b>
0-25	0.0362	0.344
25-50	0.0651	0.618
50-75	0.0918	0.871
75-100	0.1170	1.112
100-125	0.1417	1.343
125-150	0.1652	1.568
150-175	0.1883	1.787
175-200	0.2108	2.001
200-225	0.2329	2.211
225-250	0.2547	2.417
250-275	0.2761	2.620
275-300	0.2972	2.821
300-325	0.3181	3.019
325-350	0.3387	3.214
350-375	0.3591	3.408
375-400	0.3793	3.599

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart AB – Sector AB – Transportation Equipment, Industrial or Commercial Machinery Facilities.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.AB.1 Covered Stormwater Discharges.**

The requirements in Subpart AB apply to stormwater discharges associated with industrial activity from Transportation Equipment, Industrial or Commercial Machinery facilities as identified by the SIC Codes specified under Sector AB in Table C-1 of Appendix C of the permit.

**8.AB.2 Additional SWPPP Requirements.**

8.AB.2.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the facility's SWPPP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations.



**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart AC– Sector AC –Electronic and Electrical Equipment and Components, Photographic and Optical Goods.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility’s primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.AC.1 Covered Stormwater Discharges.**

The requirements in Subpart AC apply to stormwater discharges associated with industrial activity from facilities that manufacture Electronic and Electrical Equipment and Components, Photographic and Optical goods as identified by the SIC Codes specified in Table C-1 of Appendix C of the permit.

**8.AC.2 Additional Requirements.**

No additional sector-specific requirements apply.

**Part 8 – Sector-Specific Requirements for Industrial Activity**

**Subpart AD – Sector AD – Stormwater Discharges Designated by the Director as Requiring Permits.**

The permittee shall comply with Part 8 sector-specific requirements associated with the facility's primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

**8.AD.1 Covered Stormwater Discharges.**

Sector AD is used to provide permit coverage for facilities designated by the Director as needing a stormwater permit, and any discharges of stormwater associated with industrial activity that do not meet the description of an industrial activity covered by Sectors A-AC.

8.AD.1.1 *Eligibility for Permit Coverage.* Because this sector is primarily intended for use by discharges designated by the Director as needing a stormwater permit (which is an atypical circumstance), and the facility may or may not normally be discharging stormwater associated with industrial activity, the permittee shall obtain the Director's written permission to use this permit prior to submitting an NOI. An operator, who is authorized to use this permit, shall also be required to ensure that the facility's discharges meet the basic eligibility provisions of this permit at Part 1.1.

**8.AD.2 Sector-Specific Benchmarks and Effluent Limits. (See also Part 6.)**

The Director shall establish any additional monitoring and reporting requirements for the facility prior to authorizing an operator to be covered by this permit. Any additional monitoring requirements shall be based on the nature of activities at the facility and its stormwater discharges.

**Appendix A**  
**Definitions, Abbreviations and Acronyms**

**Appendix A. Definitions, Abbreviations, and Acronyms (for the purposes of this permit).**

**Approved Total Maximum Daily Loads (TMDLs)** – Approved TMDLs are those that are developed by the Arizona Department of Environmental Quality and approved by EPA.

**Best Management Practices (BMPs)** – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.

**Co-located Industrial Activities** – Any industrial activities, excluding primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified by the SIC code list in Appendix D.

**Control Measure** – refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

**Director** – a means the Director of the Arizona Department of Environmental Quality or an authorized representative.

**Discharge** – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

**Discharge of a pollutant** – any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

**Existing Discharger** – an operator applying for coverage under this permit for discharges authorized previously under an AZPDES general or individual permit.

**Facility or Activity** – any AZPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the AZPDES program. See 40 CFR 122.2.

**Federal Facility** – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the federal government.

**Impaired water** – waters that have been assessed by ADEQ, under the CWA, Section 303(d), as not attaining a water quality standard for at least one designated use, and are listed in Arizona's 2006 – 2008 §303(d) and Other Impaired Waters List.

**Indian Country** – (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (b) all dependent Indian communities within the borders of the United States, whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe. (18 U.S.C. 1151)

**Industrial Activity** – the 10 categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity" as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

**Industrial Stormwater** – stormwater runoff from industrial activity.

**Municipal Separate Storm Sewer** – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

**New Discharger** – a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective AZPDES permit for discharges at that site. See 40 CFR 122.2.

**New Source** – any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- After promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- After proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

**New Source Performance Standards (NSPS)** – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

**No exposure** – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

**Operator** – any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:

- (i) The entity has operational control over industrial activities, including the ability to modify those activities; or
- (ii) The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

**Outstanding Arizona Water** – a surface water that has been designated by ADEQ as an outstanding state resource under A.A.C. R18-11-112.

**Person** – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

**Point source** – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or

may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. See 40 CFR 122.2.

**Pollutant** – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

**Pollutant of concern** – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

**Primary industrial activity** – includes any activities performed on-site which are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.

**Qualified Personnel** – Qualified personnel are those (either the permittee's employees or outside consultants) who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and who can also evaluate the effectiveness of control measures.

**Reportable Quantity Release** – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

**Runoff coefficient** – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

**Significant materials** – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. See 40 CFR 122.26(b)(12).

**Stormwater** – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

**Stormwater Discharges Associated with Construction Activity** – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

**Stormwater Discharges Associated with Industrial Activity** – the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities

or activities excluded from the AZPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

**Total Maximum Daily Loads (TMDLs)** – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

**Water Quality Standards** – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States and EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)). Water quality standards also include an antidegradation policy. See P.U.D. o. 1 of Jefferson County et al v. Wash Dept of Ecology et al, 511 US 701, 705 (1994).

## **A.2. ABBREVIATIONS AND ACRONYMS**

ADHS – Arizona Department of Health Service

BOD<sub>5</sub> – Biochemical Oxygen Demand (5-day test)

BMP – Best Management Practice

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

COD – Chemical Oxygen Demand

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)

DMR – Discharge Monitoring Report

EPA – U. S. Environmental Protection Agency

MDMR – MSGP Discharge Monitoring Report

MGD – Million Gallons per Day

MS4 – Municipal Separate Storm Sewer System

MSDS – Material Safety Data Sheet

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NOI – Notice of Intent

NOT – Notice of Termination

OAW – outstanding Arizona water

RCRA – Resource Conservation and Recovery Act

SIC – Standard Industrial Classification

SPCC – Spill Prevention, Control, and Countermeasures

SSC – Suspended Sediment Concentration

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

TSS – Total Suspended Solids

WLA – Wasteload Allocation

WQS – Water Quality Standard



**Appendix B  
Standard Permit Conditions**

**Appendix B. Standard Permit Conditions.**

Standard permit conditions in Appendix B are consistent with the general permit provisions required under 40 CFR 122.41 and A.A.C. R-18-9-A905(A)(3).

1. **Duty to Comply.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(a)(1) and A.R.S. §§ 49-261, 262, 263.01, and 263.02.]
  - a. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act; A.R.S. Title 49, Chapter 2, Article 3.1; and A.A.C. Title 18, Chapter 9, Articles 9 and 10, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.
  - b. The issuance of this permit does not waive any federal, state, county, or local regulations or permit requirements with which a person discharging under this permit is required to comply.
  
2. **Duty to Reapply / Continuation of the Expired General Permit.** [A.A.C. R18-9-A905 which incorporates 40 CFR 122.41(b)]
  - a. Upon reissuance of the general permit, the permittee shall file an NOI, within the timeframe specified in the new general permit, and shall obtain new written authorization to discharge from the Director.
  - b. If the Director does not reissue the general permit before the expiration date, the current general permit will be administratively continued and remain in force and effect until the general permit is reissued.
  - c. Any permittee granted authorization to discharge under the general permit before the expiration date automatically remains covered by the continued general permit until the earlier of:
    - i. Reissuance or replacement of the general permit, at which time the permittee shall comply with the NOI conditions of the new general permit to maintain authorization to discharge; or
    - ii. The date the permittee has submitted a Notice of Termination; or
    - iii. The date the Director has issued an individual permit for the discharge; or
    - iv. The date the Director has issued a formal permit decision not to reissue the general permit, at which time the permittee shall seek coverage under an alternative general permit or an individual permit, or cease discharge.
  
3. **Need To Halt or Reduce Activity Not a Defense.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(c)]

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.
  
4. **Duty to Mitigate.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(d)]

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
  
5. **Proper Operation and Maintenance.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(e)]

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 back-up or auxiliary facilities or similar systems that are

installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

- 6. Permit Actions.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(f)]  
This permit may be modified, revoked and reissued, or terminated for cause. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- 7. Property Rights.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(g)]  
This permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, nor any infringement of federal, state, Indian tribe, or local laws or regulations.
- 8. Duty to Provide Information.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(h)]  
The permittee must furnish to ADEQ, 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 ADEQ upon request, copies of records required to be kept by this permit.
- 9. Signatory Requirements.** [A.A.C. R18-9-A905(A)(3)(a), which incorporates 40 CFR 122.41(k) and (l); A.A.C. R18-9-A905(A)(1)(c), which incorporates 40 CFR 122.22]  
All Notices of Intent (NOI) and Notices of Termination (NOT), must be signed as follows:

  - a. NOIs and NOTs:
    - i. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: 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 the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
    - ii. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
    - iii. For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal (or state) agency includes: (1) The chief executive officer (or director) of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
  - b. All reports required by this permit and other information requested by ADEQ as follows:
    - i. A person described in Section 9.a or by a duly authorized representative of that person. A person is a duly authorized representative only if the authorization is made in writing by a person described in Section 9.a and contained in the SWPPP.
    - ii. The authorization must specify either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

- c. All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 9.a above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i. The authorization is made in writing by a person described in Part 9.a;
  - ii. The authorization specifies 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, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may be either a named individual or any individual occupying a named position); and
  - iii. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to ADEQ, upon request.
- d. Changes to Authorization. If the information on the NOI filed for permit coverage is no longer accurate because a different owner / operator has responsibility for the overall operation of the facility, a new NOI satisfying the requirements of Part 1.3.1 must be submitted to ADEQ prior to or together with any reports, information, or applications to be signed in accordance with Appendix B, Subsection 9.c above. The change in authorization must be submitted within the time frame specified in Table A.3, and sent to the address specified in Part 7.6.
- e. Certification. Any person signing documents under the terms of this permit must 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 gathered and evaluated 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.*

**10. Inspection and Entry.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(i)]

- a. The permittee must allow ADEQ or an authorized representative to:
  - i. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records are kept under the conditions of this permit;
  - ii. Have access to and copy at reasonable times, any records that are kept under the conditions of this general permit; and
  - iii. Inspect at reasonable times any facility or equipment (including monitoring and control equipment), practices or operations regulated or required under this permit;
  - iv. Sample or monitor at reasonable times any substances or parameters at any location, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and 18 A.A.C. 9, Articles 9 and 10; and
- b. If the facility discharges to an MS4, the permittee must allow representatives of the municipal operator or the separate storm sewer receiving the discharge to inspect the site and obtain copy of records pertaining to the discharge or the conditions of this permit.

**11. Monitoring and Records.**

- a. Representative Samples/Measurements. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.
- b. Retention of Records. The permittee must 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 at least three (3) years from the date this permit expires. This period may be extended by request of the Director at any time. Permittees must submit any such records to ADEQ upon request. The permittee must retain the SWPPP developed in accordance with Part 5 of this permit, for at least three (3) years after the last modification or amendment is made to the plan.
- c. Records Contents. Records of monitoring information must include:
    - i. The date, exact place, and time of sampling or measurements;
    - ii. The initials or name(s) of the individual(s) who performed the sampling or measurements;
    - iii. The date(s) analyses were performed;
    - iv. The time(s) analyses were initiated;
    - v. The initials or name(s) of the individual(s) who performed the analyses;
    - vi. References and written procedures, when available, for the analytical techniques or methods used;
    - vii. The analytical techniques or methods used; and
    - viii. The results of such analyses.
  - d. Approved Monitoring Methods. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless specific test procedures have been otherwise specified in this permit.
  - e. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which includes the possibility of fines and/or imprisonment.

**12. Reporting Requirements.** [A.A.C. R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(l)]

- a. Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
  - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (incorporated by reference at A.A.C. R18-9-A905(A)(1)(e)); or
  - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1) (incorporated by reference at A.A.C. R18-9-A905(A)(3)(b)).
- b. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.
  - i. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms (paper or electronic) provided or specified by ADEQ. Pursuant to Part 7.1, all monitoring data collected pursuant to Part 6.2 and 6.3 must be submitted to the Department using the MSGP Discharge Monitoring Report (MDMR) form, available at <http://azdeq.gov/permit/azpdes/industrial-stormwater-non-mining-msgp>.
  - ii. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
  - iii. Calculations for all limitations which require averaging of measurements must use an arithmetic mean and non-detected results must be incorporated in calculations as the

limit of quantitation for the analysis.

- c. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.
- d. Twenty-four hour reporting.
  - i. The permittee shall report to ADEQ any noncompliance with this permit which may endanger human health or the environment. The permittee shall orally notify the office listed below within 24 hours:

Arizona Department of Environmental Quality – Water Quality Compliance  
1110 W. Washington Street, Mail Code 5515 B-1  
Phoenix, AZ 85007  
Office: 602-771 – 2330; Fax 602-771 – 4505
  - ii. A written submission shall also be provided to the office identified above within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; 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 steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
  - iii. The following shall be included as information which must be reported within 24 hours under this paragraph.
    - 1) Any upset which exceeds any effluent limitation in the permit.
    - 2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g) which is incorporated by reference at A.A.C. R18-9-A905(A)(3)(d)).
  - iv. ADEQ may waive the written report on a case-by-case basis for reports under this subsection if the oral report has been received within 24 hours.
- e. Other noncompliance. The permittee shall report all instances of noncompliance not otherwise required to be reported under this subsection, at the time monitoring reports are submitted. The reports shall contain the information listed in subsection 12(d).
- f. Other information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Department, the permittee shall promptly submit the facts or information to ADEQ at the address listed in Part 7.6.

**13. Reopener Clause.** [A.A.C. R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44(c)] The Department may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines, which may be promulgated in the course of the current permit cycle.

**14. Other Environmental Laws.** No condition of this general permit releases the permittee from any responsibility or requirements under other environmental statutes or regulations. For example, this permit does not authorize the “taking” of endangered or threatened species as prohibited by Section 9 of the Endangered Species Act, 16 U.S.C. 1538. Information regarding the location of endangered and threatened species and guidance on what activities constitute a “taking” are available from the U.S. Fish and Wildlife Service. The permittee must also comply with applicable State and Federal laws, including Spill Prevention Control and Countermeasures (SPCC).

**15. State or Tribal Law.** [Pursuant to A.A.C. R18-9-A904(C)] 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 or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.

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

**17. Requiring Coverage under an Individual Permit or an Alternative General Permit.**

- a. The Director may require a person authorized by this permit to apply for and/or obtain either an individual AZPDES permit or an alternative AZPDES general permit. Any interested person may petition the Department to take action under this section. The Department may require a permittee authorized to discharge under this permit to apply for an individual permit in any of the following cases:
  - i. A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
  - ii. Effluent limitation guidelines are promulgated for point sources covered by the general permit;
  - iii. An Arizona Water Quality Management Plan containing requirements applicable to the point sources is approved;
  - iv. Circumstances change after the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;
  - v. If the Director determines that the discharge is a significant contributor of pollutants. When making this determination, the Director shall consider:
    - 1) The location of the discharge with respect to waters of the United States,
    - 2) The size of the discharge,
    - 3) The quantity and nature of the pollutants discharged to waters of the U.S., and
    - 4) Any other relevant factor.
- b. If an individual permit is required, the Director shall notify the discharger in writing of the decision. The notice shall include:
  - i. A brief statement of the reasons for the decision;
  - ii. An application form;
  - iii. A statement setting a deadline to file the application;
  - iv. A statement that on the effective date of issuance or denial of the individual permit, coverage under the general permit will automatically terminate;
  - v. The applicant's right to appeal the individual permit requirement with the Water Quality Appeals Board under A.R.S. § 49-323, the number of days the applicant has to file a protest challenging the individual permit requirement, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process; and
  - vi. The applicant's right to request an informal settlement conference under A.R.S. 41-1092.03(A) and 41-1092.06.
- c. The discharger shall apply for an individual permit within 90 days of receipt of the notice, unless the Director grants a later date. In no case shall the deadline be more than 180 days after the date of the notice.
- d. If the discharger fails to submit the individual permit application within the time period established in Appendix B.17.c the applicability of the general permit to the discharger is automatically terminated at the end of the day specified by the Director for application submittal.
- e. Coverage under the general permit shall continue until an individual permit is issued or denied unless the general permit coverage is terminated under Appendix B. Subsection 17.d.

**18. Request for an Individual Permit.**

- a. A permittee may request an exclusion from coverage of a general permit by applying for an individual permit.
  - i. The permittee shall submit an individual permit application under R18-9-B901(B) and include the reasons supporting the request no later than 90 days after publication of the general permit.
  - ii. The Director shall grant the request if the reasons cited by the permittee are adequate to support the request.
- b. If an individual permit is issued to a person otherwise subject to a general permit, the applicability of the general permit to the discharge is automatically terminated on the effective date of the individual permit.

**19. Transfer of Coverage**

- a. Transfer of coverage from one operator to a different operator (*e.g.*, facility sold to a new company): the new owner/ operator must complete and file a Notice of Intent in accordance with Part 1.3.1 at least 5 days prior to taking over operational control of the facility. The old owner/ operator must file a Notice of Termination within thirty (30) days after the new owner/ operator has assumed responsibility for the facility.
- b. Simple name changes of the permittee (*e.g.*, Company “A” changes name to “ABC, Inc.”) may be done by filing an amended Notice of Intent referencing the facility’s assigned permit number and requesting a simple name change.

**20. Bypass**

- a. Definitions.
  - 1 Bypass means the intentional diversion of waste streams from any portion of a treatment facility
  - 2 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 production.
- b. Bypass not exceeding limitations. The permittee may allow any bypass to occur that 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 Appendix B, Subsections 20.c and 20.d.
- c. Notice
  - 1 Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted 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 Appendix B, Subsection 12.d.
- d. Prohibition of bypass.
  - 1. Bypass is prohibited, and ADEQ may take enforcement action against the permittee for bypass, unless:
    - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - ii. 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 adequate back-up equipment should have been installed in the exercise of reasonable engineering



judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

- iii. The permittee submitted notices as required under Appendix B, Subsection 20.c.
2. ADEQ may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in this Appendix B, Subsection 20.d.

## 21. Upset

- a. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. 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 Appendix B, Subsection 21.c 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.
- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - 1 An upset occurred and that the permittee can identify the 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 in Appendix B, Subsection 12.d (iii); and
  - 4 The permittee complied with any remedial measures required under Appendix B, Subsection 4.
- d. Burden of proof. In any enforcement proceeding, the permittee, who is seeking to establish the occurrence of an upset, has the burden of proof.

## G. Penalties for Violations of Permit Conditions.

Any permit noncompliance constitutes a violation and is grounds for an enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

1. **Civil Penalties.** A.R.S. § 49-262 provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 2, 3 or 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed \$25,000 per day per violation.
2. **Criminal Penalties.** Any a person who violates a condition of this general permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 2, Articles 9 and 10 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

**Appendix C  
Facilities and Activities Covered**

**Appendix C. Facilities and Activities Covered**

Permit eligibility is limited to discharges from facilities in the “sectors” of industrial activity summarized in Table C-1. These sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. References to “sectors” in this permit (e.g., sector-specific monitoring requirements) refer to these groupings.

<b>Table C-1. Non-Mining Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector (May be subject to more than one sector/subsector)</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR A: TIMBER PRODUCTS</b>		
A1	2421	General Sawmills and Planing Mills
A2	2491	Wood Preserving
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
	2499	Wood Products, Not Elsewhere Classified
A5	2441	Nailed and Lock Corner Wood Boxes and Shook
<b>SECTOR B: PAPER AND ALLIED PRODUCTS</b>		
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes
<b>SECTOR C: CHEMICALS AND ALLIED PRODUCTS</b>		
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
	2861-2869	Industrial Organic Chemicals

<b>Table C-1. Non-Mining Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector (May be subject to more than one sector/subsector)</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
	2891-2899	Miscellaneous Chemical Products
	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors
	2911	Petroleum Refining
<b>SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS</b>		
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
<b>SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS</b>		
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3275	Concrete, Gypsum, and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Non-metallic Mineral Products
<b>SECTOR F: PRIMARY METALS</b>		
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products
<b>SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES</b>		
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under subtitle C of RCRA
<b>SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS</b>		
L1	LF	All Landfill, Land Application Sites and Open Dumps
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
<b>SECTOR M: AUTOMOBILE SALVAGE YARDS</b>		
M1	5015	Automobile Salvage Yards

<b>Table C-1. Non-Mining Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector (May be subject to more than one sector/subsector)</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR N: SCRAP RECYCLING FACILITIES</b>		
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
N2	5093	Source-separated Recycling Facility
<b>SECTOR O: STEAM ELECTRIC GENERATING FACILITIES</b>		
O1	SE	Steam Electric Generating Facilities, including coal handling sites
<b>SECTOR P: LAND TRANSPORTATION AND WAREHOUSING</b>		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals
<b>SECTOR Q: WATER TRANSPORTATION</b>		
Q1	4412-4499	Water Transportation Facilities
<b>SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS</b>		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
<b>SECTOR S: AIR TRANSPORTATION FACILITIES</b>		
S1	4512-4581	Air Transportation Facilities
<b>SECTOR T: TREATMENT WORKS</b>		
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA.
<b>SECTOR U: FOOD AND KINDRED PRODUCTS</b>		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
	2021-2026	Dairy Products
	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products

<b>Table C-1. Non-Mining Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector (May be subject to more than one sector/subsector)</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products
<b>SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS</b>		
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
<b>SECTOR W: FURNITURE AND FIXTURES</b>		
W1	2434	Wood Kitchen Cabinets
	2511-2599	Furniture and Fixtures
<b>SECTOR X: PRINTING AND PUBLISHING</b>		
X1	2711-2796	Printing, Publishing, and Allied Industries
<b>SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES</b>		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	3991-3999	Miscellaneous Manufacturing Industries
<b>SECTOR Z: LEATHER TANNING AND FINISHING</b>		
Z1	3111	Leather Tanning and Finishing

<b>Table C-1. Non-Mining Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector (May be subject to more than one sector/subsector)</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR AA: FABRICATED METAL PRODUCTS</b>		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving
<b>SECTOR AB: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY</b>		
AB1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector AC)
	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)
<b>SECTOR AC: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS</b>		
AC1	3571-3579	Computer and Office Equipment
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment
<b>SECTOR AD: NON-CLASSIFIED FACILITIES</b>		
AD1	Other stormwater discharges designated by the Director as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) & (D)) or any facility discharging stormwater associated with industrial activity not described by any of Sectors A-AC.  <i>NOTE: Facilities may not elect to be covered under Sector AD. Only the Director may assign a facility to Sector AD.</i>	

<sup>1</sup> A complete list of SIC Codes (and conversions from the newer North American Industry Classification System" (NAICS) can be obtained from the Internet at <http://www.osha.gov/pls/imis/sicsearch.html> or in paper form from various locations in the document titled *Handbook of Standard Industrial Classifications*, Office of Management and Budget, 1987. Much of the information in the 1987 *Handbook* can be obtained from the Internet at [http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html). Conversions from the NAICS can be obtained from the Internet at [www.census.gov/epcd/www/naics.html](http://www.census.gov/epcd/www/naics.html)

**Appendix D  
Calculating Hardness in Surface Waters Receiving Stormwater Discharges for Hardness  
Dependent Metals**



**Appendix D. Calculating Hardness in Surface Waters Receiving Stormwater Discharges for Hardness Dependent Metals**

**Overview**

Benchmarks have been adjusted for six hardness-dependent metals (i.e., cadmium, copper, lead, nickel, silver, and zinc) to further ensure compliance with water quality standards and provide additional protection for endangered species and their critical habitat. For any sectors required to conduct benchmark samples for a hardness-dependent metal, 'hardness ranges' are included from which benchmark values are determined. To determine which hardness range to use, the permittee must collect data on the hardness of the facility's surface water(s) that receive discharges or the hardness of the discharge itself based on the type of the receiving water body. Once the site-specific hardness data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within 25 mg/L ranges, as shown in Table 1.

**Table 1. Hardness Ranges to Be Used to Determine Benchmark Values for Discharges to Perennial or Intermittent Waterbodies.**

All Units mg/L	Benchmark Values (mg/L, total)					
	Cadmium	Copper	Lead	Nickel	Silver	Zinc
0-25	0.0020	0.0036	0.014	0.15	0.0007	0.0362
25-50	0.0040	0.0070	0.030	0.260	0.0007	0.0651
50-75	0.0060	0.0102	0.047	0.367	0.0017	0.0918
75-100	0.0079	0.0134	0.065	0.468	0.0030	0.1170
100-125	0.0096	0.0170	0.082	0.566	0.0046	0.1417
125-150	0.0117	0.0197	0.100	0.660	0.0065	0.1652
150-175	0.0136	0.0221	0.118	0.752	0.0087	0.1883
175-200	0.0154	0.0228	0.136	0.842	0.0112	0.2108
200-225	0.0173	0.0289	0.154	0.930	0.0138	0.2329
225-250	0.0192	0.0316	0.172	1.017	0.0168	0.2547
250-275	0.0173	0.0349	0.190	1.102	0.0183	0.2761
275-300	0.0210	0.0378	0.209	1.186	0.0213	0.2972
300-325	0.0246	0.0408	0.227	1.269	0.0244	0.3181
325-350	0.0266	0.0438	0.245	1.351	0.0278	0.3387
350-375	0.0284	0.0467	0.263	1.433	0.0312	0.3591
375-400	0.0302	0.0496	0.281	1.513	0.0349	0.3793

**Table 2. Hardness Ranges to Be Used to Determine Benchmark Values for Discharges to Ephemeral Waterbodies.**

All Units mg/L	Benchmark Values (mg/L, total)					
	Cadmium	Copper	Lead	Nickel	Silver	Zinc
0-25	0.0059	0.0063	0.0293	1.287	0.0003	0.344
25-50	0.0116	0.0121	0.0636	2.313	0.0010	0.618
50-75	0.0172	0.0177	0.0995	3.260	0.0020	0.871
75-100	0.0228	0.0233	0.1363	4.158	0.0032	1.112
100-125	0.0286	0.0283	0.1736	5.022	0.0047	1.343
125-150	0.0338	0.0341	0.2113	5.860	0.0065	1.568
150-175	0.0393	0.0394	0.2492	6.676	0.0084	1.787

All Units mg/L	Benchmark Values (mg/L, total)					
	Cadmium	Copper	Lead	Nickel	Silver	Zinc
175-200	0.0447	0.0447	0.2873	7.475	0.0106	2.001
200-225	0.0501	0.0500	0.3255	8.258	0.0130	2.211
225-250	0.0555	0.0552	0.3637	9.028	0.0156	2.417
250-275	0.0609	0.0601	0.4020	9.786	0.0183	2.620
275-300	0.0663	0.0655	0.4402	10.53	0.0213	2.821
300-325	0.0714	0.0706	0.4784	11.27	0.0244	3.019
325-350	0.0770	0.0757	0.5166	12.00	0.0278	3.214
350-375	0.0823	0.0800	0.5547	12.72	0.0312	3.408
375-400	0.0876	0.0859	0.5927	13.44	0.0349	3.599

**How to Determine Hardness for Hardness-Dependent Parameters.**

The permittee shall monitor stormwater discharges for parameters specified in Part 8 for the primary industrial activity, and any co-located industrial activities authorized under this permit. If any of the parameters are hardness-dependent, the permittee must also characterize for hardness. The results of the general analytical monitoring, including hardness, shall be submitted to ADEQ in accordance with Part 7. For discharges to:

- Perennial or intermittent waters, the hardness shall be of the surface water receiving the discharge.
- Ephemeral waters, the hardness shall be of the discharge leaving the facility.

Hardness characterization of the receiving water shall include analysis of samples from the surface water receiving the discharge or surface water data collected by a third party provided the data is credible, scientifically defensible and is representative of current conditions. The data and the methodology for determining the hardness values must be submitted to ADEQ in the first year of permit coverage to allow ADEQ to compare monitoring results with applicable water quality standards. The permittee shall retain all reports and monitoring data in accordance with Part 7.5 of the permit.



**ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(AZPDES)**

**FACT SHEET**

**Multi-Sector General Permit (MSGP) for  
Stormwater Discharges  
Associated with Industrial Activity  
from Non-Mining Facilities**

**December 20, 2010**

**Fact Sheet: Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity from Non-Mining Facilities**

**Table of Contents**

I. Introduction.....1

II. Organization of the Final Permit and Summary of Changes from the MSGP 2000.....2

    II.A Structure and Terminology of the MSGP 2010 .....2

    II.B. Summary of Major Changes from the MSGP 2000 and Major Changes between EPA’s MSGP 2008 and ADEQ’s AZPDES MSGP 2010.....3

III. Categories of Facilities Covered by MSGP 2010 .....8

Detailed Part-by-Part Discussion of the Permit .....9

IV. Coverage under the MSGP 2010 (Part 1) .....9

    IV.A. Eligibility (Part 1.1) .....9

        IV.A.1. Allowable Stormwater Discharges (Part 1.1.2). .....9

        IV.A.2 Allowable Non-Stormwater Discharges (Part 1.1.3). .....10

        IV.A.3 Limitations on Coverage (Part 1.1.4). .....10

    IV.B. Permit Compliance (Part 1.2) .....12

    IV.C. Authorization under the MSGP 2010 (Part 1.3) .....12

    IV.D. Terminating Coverage (Part 1.4) .....14

    IV.E. Conditional Exclusion for No Exposure (Part 1.5).....15

    IV.F. Alternative Permits (Part 1.6) .....15

V. Control Measures, Numeric Effluent Limitations and Water Quality Standards (Part 2) .....16

    V.A. Control Measures and Technology-Based Effluent Limitations – Definition of “Minimize” (Part 2).....16

        V.A.1. Introduction to CWA Requirements to Control Pollutants in Discharges .....16

        V.A.2. Explanation of the Use of Control Measures to Meet the Permit Limits.....17

    V.B. Control Measures (Part 2.1).....17

        V.B.1. Control Measure Selection and Design Considerations (Part 2.1.1) .....18

    V.C. Numeric and Water quality-based effluent limitations (Part 2.2).....24

VI. Corrective Actions (Part 3) .....27

VII. Inspections (Part 4) .....29

    VII.A. Routine Facility Inspections (Part 4.1).....30

    VII.B. Visual Assessment of Stormwater Discharges (Part 4.2) .....31

    VII.C. Comprehensive Facility Inspections (Part 4.3).....34

VIII. Stormwater Pollution Prevention Plan (SWPPP) (Part 5) .....35

    VIII.A. Contents of the Facility’s SWPPP (Part 5.1) .....36

        VIII.A.1. Stormwater Pollution Prevention Team (Part 5.1.1).....36

        VIII.A.2. Site Description (Part 5.1.2).....37

        VIII.A.3. Summary of Potential Pollutant Sources (Part 5.1.3) .....37

        VIII.A.4. Description of Control Measures (Part 5.1.4).....40

        VIII.A.5. Schedules and Procedures – Control Measures (Part 5.1.5.1) .....40

        VIII.A.6. Schedules and Procedures – Monitoring and Inspection Procedures (Part 5.1.5.2) .....41

        VIII.A.7. Signature Requirements (Part 5.1.6).....41

    VIII.B. Required Modifications (Part 5.2) .....41

VIII.C.SWPPP Availability (Part 5.3).....42

VIII.D.Additional Documentation Requirements (Part 5.4) .....42

IX. Analytical Monitoring Program (Part 6).....42

IX.A. Analytical Monitoring Procedures (Part 6.1).....43

IX.A.1. Monitored Outfalls (Part 6.1.1.1).....43

IX.A.2. Commingled Discharges (Part 6.1.1.2).....44

IX.A.3. Monitoring for Allowable Non-Stormwater Discharges (Part 6.1.1.3). ....44

IX.A.4. Monitoring Periods (Part 6.1.2.1) .....44

IX.A.5. Measurable Storm Events (Part 6.1.2.2). ....45

IX.A.6. Sample Type (Part 6.1.2.3). ....45

IX.A.7. Adverse Conditions (Part 6.1.2.4).....46

IX.A.8. Sampling and Analysis Plan (Part 6.1.3) .....46

IX.B. Required Monitoring (Part 6.2).....48

IX.B.1. Benchmark Monitoring (Part 6.2.1).....52

IX.B.2. Effluent Limitations Monitoring (Parts 6.2.2.1 and 6.2.2.2). ....61

IX.B.3. Monitoring Discharges to Impaired Waters (Part 6.2.3).....62

IX.B.4. Additional Monitoring Required by ADEQ (Part 6.2.4). ....65

IX.C. Follow-up Actions if Discharge Exceeds Numeric Effluent Limitations or Water  
Quality Standards (Part 6.3).....65

X. Reporting and Recordkeeping (Part 7) .....66

X.A. Reporting Monitoring Data to ADEQ (Part 7.1) .....66

X.B. Annual Report (Part 7.2).....67

X.C. Exceedance Report for Numeric Effluent Limitations or Water Quality Standards  
(Part 7.3).....68

X.D. Other Reporting (Part 7.4) .....68

X.E. Recordkeeping (Part 7.5) .....68

X.F. Addresses for Reports (Part 7.6).....68

XI. Sector-Specific Requirements for Discharges Associated with Industrial Activity  
(Part 8).....69

XI.A. Changes to Multiple Sectors .....69

XI.B. Sector C – Chemical and Allied Products Manufacturing and Refining .....70

XI.C. Sector D1 – Asphalt Batch/ Bituminous Concrete Plants (SIC 2951, Sector D –  
Asphalt batch/ Bituminous Concrete Plants) .....71

XI.D. Sector E2 – Concrete Batch Plants (Sector E – SIC 3273).....71

XI.E. Sector K – Hazardous Waste Treatment Storage or Disposal Facilities.....71

XI.F. Sector L – Landfills, Land Application Sites, and Open Dumps.....71

XI.G. Sector N – Scrap Recycling and Waste Recycling Facilities .....72

XI.H. Sector O – Steam Electric Generating Facilities.....73

XI.I. Sector P – Land Transportation and Warehousing .....74

XI.J. Sector S – Air Transportation .....75

XII. Included Appendices.....76

XIII. Applicable Forms.....77

XIII.A.Notice of Intent (NOI) .....77

XIII.B.Notice of Termination.....77

XIII.C.Annual Reporting Form .....78

## I. Introduction

The Clean Water Act (“CWA”) establishes a comprehensive program “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). The CWA “also seeks to attain ‘water quality which provides for the protection and propagation of fish, shellfish and wildlife.’” P.U.D. No. 1 of Jefferson City v. Washington Dep’t of Ecology, 511 U.S. 700, 704 (1994) (quoting 33 U.S.C. § 1251(a)(2)). To achieve these goals, the CWA requires U.S. Environmental Protection Agency (EPA) to authorize discharges through issuance of National Pollutant Discharge Elimination System (“NPDES”) permits.

Section 405 of the Water Quality Act of 1987 (WQA) added section 402(p) of the CWA, which directed the EPA to develop a phased approach to regulate stormwater discharges under the NPDES program. EPA published a final regulation on the first phase of this program on November 16, 1990, establishing permit application requirements for “stormwater discharges associated with industrial activity”. See 55 FR 47990. EPA defined the term “stormwater discharge associated with industrial activity” in a comprehensive manner to cover a wide variety of facilities. See 40 CFR 122.26(b)(14). The Arizona Department of Environmental Quality (ADEQ) received authorization to administer the NPDES program in Arizona on December 5, 2002. The Arizona Pollutant Discharge Elimination System (AZPDES) program, applies throughout Arizona except for Indian Country. Therefore, the AZPDES 2010 Multi-Sector General Permit (MSGP 2010) is applicable to discharges in Arizona under this statutory and regulatory authority, except for those facilities in Indian Country. Where there is no approved tribal program, EPA remains responsible, consistent with its trust authority for implementing and enforcing the NPDES program in Indian Country.

The purpose of this Fact Sheet is to describe the permitting requirements of the MSGP 2010 for stormwater discharges associated with industrial activity from all non-mining sectors. Furthermore, this Fact Sheet describes in detail the rationale for significant changes from the MSGP 2000 and ADEQ’s rationale for deviations from EPA’s 2008 permit upon which the MSGP 2010 is based. The following categories listed in 40 CFR 122.26(b)(14) are included in this non-mining MSGP: categories i, ii, iv through ix and xi. Table 1, Section III of this Fact Sheet shows the sectors covered by the permit. Appendix C of the permit presents more specific information about each non-mining sector covered by the permit. A separate mining sector MSGP (MSGP 2010 -mines) has been developed for Sector G, H, I and J.

EPA’s Fact Sheet discussed changes from their proposed 2006 MSGP to their final 2008 MSGP. While informative, this discussion is not important in the context of Arizona’s permit. The EPA 2006 MSGP was proposed on non-Indian lands in Arizona as a contingency measure to ensure that general permitting continued to be available if the decision by the Ninth Circuit Court of Appeals regarding Defenders of Wildlife v. EPA had taken effect. Had this occurred, Arizona’s AZPDES permitting program would have reverted to EPA and no longer been administered by ADEQ. As such the EPA 2006 MSGP was never formally proposed by ADEQ for adoption in Arizona. Therefore, discussions and comparisons with EPA’s 2006 MSGP in this Fact Sheet are unnecessary.

ADEQ is issuing the MSGP 2010 to replace the expired MSGP 2000. The permit will have a five year term; hence, it will expire on the fifth anniversary of the permit’s signature date in 2015. Pursuant to A.A.C. R18-9-C905 the Director may modify and reissue and revoke the permit before it expires if certain conditions, presented in 40 CFR 122.62(a) or (b), are met.

The permit contains provisions that require industrial facilities in 25 different industrial sectors to, among other things, implement control measures and develop site-specific stormwater pollution prevention plans (SWPPP) to comply with AZPDES requirements. In addition, the MSGP includes a 26th sector, allowing ADEQ to permit additional industrial activities which ADEQ determines require permit coverage for industrial stormwater discharges not included in the other 25 non-mining industrial sectors.

EPA issued the MSGP 2000 for a five-year term commencing on October 30, 2000 (65 FR 64746). EPA subsequently corrected the MSGP 2000 on January 9, 2001 (66 FR 1675-1678) and March 23, 2001 (66 FR 16233-16237). ADEQ has had authority for implementation, compliance and enforcement of EPA's MSGP 2000 since assuming responsibility for the NPDES permitting program on December 5, 2002. The MSGP 2000 expired on October 30, 2005 but was administratively continued for facilities that were covered under the permit at the time it expired. EPA's 2008 MSGP, which only applies to tribal lands in Arizona, became effective on September 29, 2008.

All facilities on non-tribal lands in Arizona subject to the permit, including those previously covered by the MSGP 2000, must now apply for coverage under ADEQ's new MSGP 2010. To be covered by this new permit, operators must submit a complete and accurate Notice of Intent (NOI) and certify in the NOI that they meet the requisite eligibility requirements, described in Part 1 of the permit, including the requirement to select, design, and install control measures to comply with the numeric effluent limitations and water quality standards in Part 2 and to develop a SWPPP, pursuant to Part 5. Once covered under the permit, a permittee is required to take corrective action if any of the conditions specified in Part 3.1.1 of the permit occur.

ADEQ's MSGP 2010 is patterned after EPA's MSGP 2008 in format and content and many of the concepts of EPA's permit are incorporated into the MSGP 2010. ADEQ'S Fact Sheet for the MSGP adopts much of the format and content of EPA's Fact Sheet for the MSGP 2008 and relies in large part on EPA's original research and analysis. In addition, ADEQ's MSGP 2010 is written to address Arizona-specific conditions and issues directly relevant to the implementation of Arizona's MSGP as well as those changes that are unique to Arizona's permit. This Fact Sheet discusses those Arizona specific changes from the EPA permit throughout.

The permit references various federal regulations. These regulations are incorporated by reference into the state AZPDES rules in the Arizona Administrative Code (A.A.C.) R18-9-A905. As an aid to reviewers, however, the permit cites the federal regulations where specific regulatory language can be found.

## **II. Organization of the Final Permit and Summary of Changes from the MSGP 2000**

### ***II.A Structure and Terminology of the MSGP 2010***

#### **Structure**

ADEQ has divided the permit into eight parts: general requirements that apply to all permittees (i.e., permit coverage (Part 1), control measures, effluent limitations and water quality standards (Part 2), corrective actions (Part 3), inspections (Part 4), SWPPP preparation and maintenance (Part 5), monitoring (Part 6), reporting and recordkeeping requirements and

industry sector-specific conditions (Part 8). Appendices include a table of sector-specific SIC codes covered by the permit, standard conditions and guidance for calculating hardness when monitoring for metals that have hardness-based surface water quality standards. Each of these parts is discussed in more detail in Sections IV through XI of this Fact Sheet.

## **Terminology**

Throughout this Fact Sheet certain terms are used when referring to different responsible entities. For instance, the permit holder is referred to either as the “permittee” or “operator”. Typically, the term “operator” is used when discussing those actions required prior to permit authorization, while “permittee” is used where this Fact Sheet and the permit refers to provisions that affect a covered discharger.

## **II.B. Summary of Major Changes from the MSGP 2000 and Major Changes between EPA’s MSGP 2008 and ADEQ’s AZPDES MSGP 2010**

This section discusses the major differences between EPA’s and ADEQ’s permit.

### **Federal Requirements not Applicable to State Permitting Programs**

*Procedures covering the Endangered Species Act (ESA), National Historic Places Act (NHPA) and National Environmental Policy Act (NEPA):* These programs are not applicable to Arizona’s state administered NPDES program. EPA still retains its authority for compliance with the requirements under these programs. Permittees do not have to determine eligibility under the ESA following the ESA Screening Process described in EPA’s permit and Fact Sheet, nor is there a requirement to meet any of Criteria A through F as described in the EPA Fact Sheet and MSGP 2008. USEPA retains its oversight role with respect to ADEQ-issued AZPDES permits to provide continued protection to Federally-listed species and designated critical habitat in Arizona. Likewise, ESA provisions upon which Parts 1.1.4.5 and 2.3 in EPA’s MSGP 2008 are based do not apply to state issued permits. In accordance with the above, all references to Endangered Species, Historic Properties and NEPA Review and Appendix E and F of EPA’s MSGP 2008 were removed from ADEQ’s MSGP 2010. ADEQ recommends facility operators contact the US Fish and Wildlife Service (USFWS) for conservation measures that may be required to ensure the facility is in compliance with ESA.

*SWPPP Availability to federal agencies:* Part 5.3 addresses the requirements for the permittee to retain a copy of the SWPPP at the facility and make it available to agencies, such as ADEQ or EPA, that have a role in regulating stormwater. As noted above, the MSGP 2010 does not include requirements regarding federal programs such as ESA, so language regarding inspections by the USFWS has been omitted.

*New Source Review* is a NEPA requirement for Federal programs and is not applicable to the state program.

### *Underground Injection Control Regulations*

Permittees are encouraged to infiltrate stormwater as a means of pollutant mitigation as well as for the hydrological benefits. However, care must be taken when using such control measures at industrial sites so as to not degrade underground sources of drinking water. The Safe



Drinking Water Act (SDWA) was established to protect drinking water supplies of the U.S. It requires EPA to regulate underground injection of fluids through subsurface disposal systems that discharge wastes or other fluids that may endanger sources of drinking water (see 40 CFR Part 144). These regulations (often referred to as UIC regulations) may apply to industrial operators if their stormwater is treated by an infiltration control measure that can be classified as a Class V Injection Well (e.g., a stormwater drainage well).”

In Arizona, drywells are a common method for disposal of stormwater, especially in the urban areas of metropolitan Phoenix and Tucson. They are authorized for the disposal of stormwater only and are considered a control measure in the AZPDES stormwater program. Drywells must be registered in accordance with A.R.S § 49-332.

Drywells that drain areas where hazardous substances, including motor fuels, are used, stored, loaded or treated are required to obtain either an individual or a general aquifer protection permit (APP). See A.A.C. R18-9-C301 (general APP Type 2.01 for drywells draining areas where hazardous substances are used, stored, loaded, or treated) and A.A.C. R18-9-C304 (general APP Type 2.04 for motor fuel dispensing facilities with drywells).

Drainage areas may include loading docks, fuel pumps, waste and product storage areas, etc. ADEQ recommends against installation of drywells in such areas. However, if installation is necessary, then compliance with an applicable APP is required. Regardless of the permitting status, however, all drywell(s) must be registered.

If a drywell is used for any other discharges, it is classified as an injection well, and an individual APP is required for operation or closure. This type of operation may also trigger regulation under the federal Underground Injection Control (UIC) program. The UIC Program in Arizona is administered by EPA Region 9. Refer to EPA’s web site, <http://www.epa.gov/safewater/uic/index.html>, for additional information.

Any drywells that a facility has must be identified on the site map as part of the SWPPP and their registration numbers listed in the SWPPP.

### **Information Required for NOIs**

The MSGP 2010 revises the information required in NOIs to provide ADEQ with adequate information to determine eligibility, to determine whether additional water quality-based requirements are necessary, and to enable ADEQ to inform the operator of its specific monitoring requirements (including identifying facilities that are inactive and unstaffed that do not require monitoring). Operators now need to include more specific information regarding classification of the receiving water into which they discharge and information about any impairments and any total maximum daily load (TMDL) specific to that waterbody. The operator must also include basic information to allow the Department to determine applicability of effluent limitations.

### **Water Quality-Based Effluent Requirements**

EPA’s approach to requiring water quality-based effluent limits (WQBELs) was revised in the MSGP 2010 to better ensure that discharges are controlled as necessary to meet water quality standards in non-impaired receiving waters. Specific WQBEL requirements applicable to impaired waters have been included. ADEQ retains authority to assess each operator’s discharge to determine if more stringent requirements are necessary to achieve water quality standards,

including the option of requiring an operator to obtain coverage under an individual permit. The following is a more specific breakdown of the permit's new water quality-based requirements:

- Discharges to Impaired Waters – The permit contains requirements for new and existing discharges to impaired waters with or without EPA approved TMDLs. New dischargers are only eligible for discharge authorization if they demonstrate (and document) that there is either no exposure of stormwater to the pollutant for which the water is impaired, or the impairment pollutant is not present at the facility, or that the discharge is not expected to cause or contribute to a water quality standards exceedance. In the latter case, the operator must provide data to ADEQ showing that any discharge of the pollutant will meet in-stream water quality criteria at the point of discharge or that there are sufficient remaining wasteload allocations (WLAs) in a TMDL to allow the discharge, and that the existing dischargers to the waterbody are subject to compliance schedules to bring them into attainment of the water quality standards consistent with 40 CFR 122.4(i) requirements.

For existing discharges to impaired waters with EPA approved TMDLs, ADEQ will determine if more stringent requirements are necessary to ensure that the permittee is discharging consistent with the TMDL and applicable WLA. If the water is impaired but there is no completed TMDL, the discharger is required to control its discharge as necessary to meet applicable water quality standards and to conduct routine monitoring for the pollutants for which the waterbody is impaired.

- Antidegradation Requirements – ADEQ considers that the application of control measures and other requirements of the permit are sufficient to assure that Tier 2 antidegradation requirements are met. In addition, Tier 1 antidegradation protection applies to surface waters listed on the 303(d) list for the pollutant that resulted in the listing (AAC R18-11-107.01). For these waters, a regulated discharge shall not violate a water quality standard and shall not further degrade existing water quality for the pollutant that resulted in the listing.

Consistent with federal law, Arizona Administrative Code R18-11-107(B) specifically prohibits degradation of Tier I waters (where the existing water quality does not meet applicable water quality standards). If a permittee's discharge causes or contributes to non-attainment of standards, more effective and/or additional BMPs must be added. If after the implementation of additional and/or more effective BMPs the discharge continues to contribute to nonattainment, the permittee shall cease all discharges under this permit and apply for coverage under an individual permit.

TMDLs – A TMDL is the total amount of a pollutant a waterbody can receive from all sources and still meet water quality standards. TMDLs are written for waterbodies on the Impaired Waters List. Any discharge under this permit must be consistent with any applicable WLA established in a TMDL.

This permit also includes specific conditions to protect outstanding Arizona waters (OAWs). A list a list of OAWs can be found at:

[http://www.azsos.gov/public\\_services/Title\\_18/18-11.htm](http://www.azsos.gov/public_services/Title_18/18-11.htm).

- No degradation of an OAW is allowed under the Surface Water Quality Standards rules. Thus, operators seeking authorization for discharge to a direct tributary, or upstream, of an OAW must demonstrate to ADEQ that the discharge will not degrade existing water

quality in the downstream OAW. This demonstration is through submittal of the SWPPP documents, including the monitoring provisions specified in the permit.

### **Corrective Actions**

The MSGP 2000 required certain “follow-up actions” (e.g., see Part 4.9.3 of MSGP 2000) to modify the SWPPP document or BMPs to correct identified problems. Corrective actions are clearly defined in the MSGP 2010, based on the condition identified. The permit devotes considerably more attention to corrective actions required of permittees. The provisions in Part 3 specify the types of conditions at the site that trigger corrective action requirements, what must be done to eliminate such conditions and the deadlines for completing corrective action. The permit also clarifies that failure to implement a required corrective action is a permit violation, in addition to any underlying violation that may have triggered the initial requirement for corrective action. A summary of all corrective actions initiated and/or completed each year must be reported in the annual comprehensive facility inspection report and kept with the SWPPP. See “Annual Report”, below, for further details about submittal of this information to ADEQ.

### **Monitoring**

A number of significant changes were made to the monitoring provisions as compared to the MSGP 2000. Several of these changes are listed below. For a more detailed discussion of each of these changes, see Section IX.B.1 of the Fact Sheet.

- Inactive and unstaffed sites may exercise a waiver for benchmark monitoring and visual assessments as long as there are no industrial materials or activities exposed to stormwater at the sites.
- Unless subject to a waiver, benchmark monitoring must occur during the first year of permit coverage commencing on the date of the permittee’s Authorization to Discharge. Following 4 rounds of benchmark monitoring, if the average of the 4 monitoring values does not exceed the benchmark for that specific parameter, the permittee has fulfilled his/her monitoring requirements for that parameter for the permit term. If the average of the 4 rounds of monitoring values exceeds the benchmark, the permittee is required to either:
  1. Perform corrective actions, and conduct an additional 4 rounds of monitoring until the average value is below the benchmark, or
  2. Determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet applicable effluent limitations, and continue to monitor once-per-year. If such a determination is made, the permittee may reduce monitoring for that pollutant to once per year for the duration of the permit term.

At any time prior to completion of the first 4 quarters of monitoring the permittee determines that it is mathematically certain that his/her average after 4 quarters will exceed the benchmark (e.g., the sum of results to date exceeds 4 times the benchmark), the permittee must review its control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 quarters of monitoring data.

- A permittee who discharges a pollutant of concern to an impaired waterbody must monitor twice per wet season for the first year for that pollutant.
  - For waterbodies without an approved TMDL, monitoring may be discontinued (or reduced to the frequency in Part 6.2.1) after one year if the sample result is not above water quality standards. If the pollutant for which the waterbody is impaired is found above water quality standards, monitoring shall continue twice per wet season for the duration of permit coverage. Monitoring may also be discontinued if the permittee documents that the presence of a pollutant of concern in its discharge is attributable to natural background pollutant levels, and not to the activities of the permittee.
  - For waterbodies with an approved TMDL, monitoring may be discontinued (or reduced to the frequency in Part 6.2.1) after one year if the sample result is not above the wasteload allocation (WLA). If the pollutant for which the waterbody is impaired is found above the WLA, monitoring shall continue twice per wet season for the duration of permit coverage.
- Follow-up monitoring requirements have been added when results indicate a permittee's discharge exceeds a numeric effluent limitation, to verify that control measures have been modified to control the discharge as necessary to meet the effluent limitation. If the follow-up monitoring also exceeds the limit, the permittee must report to ADEQ within 30 calendar days of receiving the analytical data.
- The application of the effluent limits affecting stormwater discharges from coal storage piles has been modified from prior permits so that only steam electric generating facilities are regulated, as intended by the 40 CFR Part 423 Federal effluent limitations guideline.
- New provisions were added enabling dischargers to eliminate corrective action and subsequent monitoring requirements if the exceedance of benchmarks is attributable solely to natural background levels of that pollutant. To use this provision, the discharger must: (1) have benchmark results that show pollutant levels are less than or equal to the concentration of that pollutant in the natural background; (2) document the supporting rationale for concluding that benchmark exceedances are attributable solely to natural background pollutant levels; and (3) notify ADEQ in the final quarterly benchmark monitoring report that benchmark exceedances are attributable solely to natural background pollutant levels.

### **Annual Report**

Permittees that operate facilities with discharges to impaired or outstanding Arizona waters (OAW) are required to submit to ADEQ an annual report that includes the findings from their annual comprehensive facility inspection report and a report detailing any conditions triggering corrective action and the status of those actions taken in response. A form is provided that each permittee can use in filing its annual report. This change was made to improve accountability by requiring that certain permittees report to ADEQ at least annually, thus allowing the Department to confirm that required annual inspections and corrective actions have been performed to protect impaired and unique waters of the state. ADEQ expects results from the annual comprehensive facility inspection and information on corrective actions to provide a better basis on which to judge permittee performance.

### **Industry Sector-specific Requirements**

The following changes were made to Part 8 of the MSGP, which describes requirements specific to particular industry sectors:

- For many sectors, general requirements to address pollutant discharges from material handling areas, fueling areas, etc. were removed from the sector-specific requirements and consolidated in the control measures in Part 2.1 that are applicable to all sectors. Requirements that remain are additional, sector-specific control measures, SWPPP requirements, and/or inspection requirements.
- Sector D, Asphalt Paving and Roofing Materials and Lubricant Manufacturing – Asphalt batch plants are often co-located on sand and gravel mining sites (Sector J) and may be used intermittently, according to market conditions. Asphalt batch/ bituminous concrete plants (SIC 2951) are eligible for the modified waiver language for benchmark monitoring for inactive and unstaffed sites. To receive the waiver, facilities in this sector must remove all potential pollutant sources used in the manufacture of asphalt, with the exception of the material stockpiles, which, if co-located, are derived from the adjoining sand and gravel excavation site.
- Sector E, Glass, Clay, Cement, Concrete, and Gypsum Products – Concrete batch plants are often co-located on sand and gravel mining sites (Sector J) and may be used intermittently, according to market conditions. Only co-located ready-mixed concrete plants; those primarily engaged in mixing and delivering ready-mixed concrete (SIC 3273) are eligible for the modified waiver language for benchmark monitoring for inactive and unstaffed sites. To receive the waiver, facilities in this sector must remove all potential pollutant sources used in the manufacture of asphalt, with the exception of the material stockpiles, which are derived from the adjoining sand and gravel excavation site. Pre-cast concrete facilities (SIC 3272), manufacturers of lime (SIC 3274), gypsum products (SIC 3275) and concrete block and brick (SIC 3271) are not eligible for this waiver.
- Sector P, Land Transportation – Text has been added to include illicit plumbing connections among the potential pollutant sources to be addressed, and a requirement has been added to document specific good housekeeping control measures used in each of the facility areas. As a point of clarification, transfer stations (refuse collection and transportation of refuse) are a covered industrial activity under the permit and are discussed further in Section XI.I.
- Sector S, Air Transportation – Requirements have been added emphasizing control measures, facility inspections, good housekeeping, vehicle and equipment washwater, and monitoring during the deicing season and for implementing controls to collect or contain contaminated melt water from collection areas used for disposal of contaminated snow.

### **III. Categories of Facilities Covered by MSGP 2010**

Coverage under the permit is available for stormwater discharges from the following 25 specified sectors of industrial activity (excluding the mineral industry Sectors G, H, I and J). The sector descriptions are based on the four digit Standard Industrial Classification (SIC) Codes and two letter Industrial Activity Codes consistent with the definition of stormwater discharge associated with industrial activity at 40 CFR 122.26(b)(14)(i, ii, iv-ix, xi). See Appendix C in the permit for specific information on each sector. A footnote in Appendix C explains where to find information on the internet on how to convert SIC codes to the NAICS. The sectors are listed in Table 1 below:

An additional Sector AD is also included. This Sector is reserved for any discharge not covered under the 25 sectors (Sector AD) that may be identified by ADEQ as appropriate for coverage.

<b>TABLE 1 – Sectors of Industrial Activity Covered by the MSGP 2010</b>	
<b>Sector A</b> – Timber Products	<b>Sector R</b> – Ship and Boat Building or Repairing Yards
<b>Sector B</b> – Paper and Allied Products Manufacturing	<b>Sector S</b> – Air Transportation Facilities
<b>Sector C</b> – Chemical and Allied Products Manufacturing	<b>Sector T</b> – Treatment Works
<b>Sector D</b> – Asphalt Paving and Roofing Materials Manufactures and Lubricant Manufacturers	<b>Sector U</b> – Food and Kindred Products
<b>Sector E</b> – Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing	<b>Sector V</b> – Textile Mills, Apparel, and other Fabric Products Manufacturing
<b>Sector F</b> – Primary Metals	<b>Sector W</b> – Furniture and Fixtures
<b>Sector K</b> – Hazardous Waste Treatment Storage or Disposal	<b>Sector X</b> – Printing and Publishing
<b>Sector L</b> – Landfills and Land Application Sites	<b>Sector Y</b> – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
<b>Sector M</b> – Automobile Salvage Yards	<b>Sector Z</b> – Leather Tanning and Finishing
<b>Sector N</b> – Scrap Recycling Facilities	<b>Sector AA</b> – Fabricated Metal Products
<b>Sector O</b> – Steam Electric Generating Facilities	<b>Sector AB</b> – Transportation Equipment, Industrial or Commercial Machinery
<b>Sector P</b> – Land Transportation	<b>Sector AC</b> – Electronic, Electrical, Photographic and Optical Goods
<b>Sector Q</b> – Water Transportation	<b>Sector AD</b> – Reserved for Facilities Not Covered Under Other Sectors and Designated by the Director

## Detailed Part-by-Part Discussion of the Permit

### IV. Coverage under the MSGP 2010 (Part 1)

This part describes eligibility requirements industrial facilities must meet to be covered by the permit. Part 1 describes how to apply for coverage, limitations on coverage, types of non-stormwater discharges that are allowed under the MSGP 2010, permit compliance, authorization and coverage termination, obtaining a conditional exclusion for no exposure and alternate permits.

#### IV.A. Eligibility (Part 1.1)

As with previous permits, to be eligible for coverage under the MSGP 2010, the discharges from industrial facilities must meet the eligibility provisions described in Part 1.1 of the permit. If they do not meet the eligibility requirement, operators must either obtain coverage under another AZPDES permit or eliminate the discharges. Unpermitted discharges of stormwater associated with industrial activities that require permit coverage will be in violation of the CWA.

##### IV.A.1. Allowable Stormwater Discharges (Part 1.1.2).

Part 1.1.2 specifies which stormwater discharges are eligible for coverage under the permit. As described in Section IV.A.3 of this Fact Sheet, not all stormwater discharges

associated with industrial activity are eligible for coverage under the permit (e.g., stormwater discharges regulated by certain national effluent limitations guidelines). In contrast to the MSGP 2000, the MSGP 2010 clarifies that co-located activities are eligible for coverage in addition to the primary industrial activity. Dischargers should use this section to determine which stormwater discharges from their site can be covered under the MSGP.

#### **IV.A.2 Allow able Non-Stormwater Discharges (Part 1.1.3).**

This provision lists the non-stormwater discharges authorized under the permit and are exceptions to the general exclusion of non-stormwater discharge from eligibility. To be authorized under the permit, any sources of non-stormwater (except flows from fire fighting activities) must be identified in the SWPPP. These non-stormwater discharges must be ancillary to the primary permitted use.

Uncontaminated groundwater or spring water is allowed as a non-stormwater discharge, provided the source is naturally occurring or required for the industrial activity to proceed and includes aquifer testing & well development.

The use of reclaimed wastewater for dust control, although not an allowable non-stormwater discharge, may be conducted by permittees provided the reclaimed water is not used in such prodigious amounts as to constitute disposal and is not applied during heavy storm events, such that it is mixed with stormwater that discharges offsite. The MSGP 2010 does not prohibit the use of reuse/reclaimed or potable waters on-site for dust control or for landscape irrigation that is consistent with the reclaimed water rules A.A.C. R18-9-704(G)(3)(c), provided such uses are managed in a way that there is no discharge of reclaimed water off site or to waters of the US if within the site boundary.

Permittees should be aware that many of the allowable non-stormwater discharges in Part 1.1.3 may still require permit coverage under the department's aquifer protection program (APP). Several such discharges are covered under Type 1 APP general permit (i.e., a Type 1.02, 1.03, 1.04 or 1.05).

#### **IV.A.3 Limitations on Coverage (Part 1.1.4).**

The eligibility requirements for many of the criteria in this section were modified. The rationale for these changes and for limitations on coverage under the permit is described below.

***Discharges Mixed with Non-Stormwater*** (Part 1.1.4.1). The MSGP does not authorize stormwater discharges that are mixed with non-stormwater other than those non-stormwater discharges listed in Part 1.1.3. EPA explained in its 1995 MSGP, that the prohibition on mixed stormwater and non-stormwater discharges, centered on the fact that non-stormwater discharges (except for those classes of non-stormwater discharges that are specifically authorized by the permit) are not inadvertently authorized by the MSGP 2010. Where a stormwater discharge is mixed with non-stormwater, that this MSGP or another AZPDES permit does not authorize, the operator must submit the appropriate application forms to obtain an individual AZPDES permit to gain permit coverage for the non-stormwater portion of the discharge.

***Stormwater Discharges Associated with Construction Activity*** (Part 1.1.4.2). The MSGP 2010 makes a distinction between construction and other types of stormwater discharges associated with industrial activity, hence stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15) are not covered by the MSGP 2010. The two exceptions to this provision are: 1) discharges from land disturbances less than one (1) acre in

size are covered by the permit consistent with Part 1.1.2, item 3 of the permit; and 2) the construction activities of Sectors G, H, I, and J are covered in a separate MSGP for the mineral industry (category iii of 40 CFR 122.26(b)(14)).

***Discharges Currently or Previously Covered by another Permit*** (Part 1.1.4.3). This section of the MSGP describes situations where an operator is ineligible for coverage under the permit because of coverage under another permit. These include operators covered by a permit within the past five years prior to the effective date of the MSGP 2010, which established site-specific numeric water quality-based limitations developed for the stormwater component of the discharge; or operators with discharges from facilities where the associated AZPDES permit has been or is in the process of being denied, terminated, or revoked by ADEQ, although this last provision does not apply to the routine reissuance of permits every five years. To avoid conflict with the anti-backsliding provisions of the CWA, transfer from an individual permit to the MSGP is only allowed under limited conditions, including that the individual permit did not contain numeric water quality-based effluent limitations.

The provision in the MSGP 2010 is substantially similar to the one in the MSGP 2000, with two exceptions:

1. The MSGP 2000 required an operator covered under the MSGP to include in the SWPPP any sector-specific BMPs specifically required in any previous individual permit issued to that same facility. This language is no longer necessary and was deleted from the MSGP 2010 because of the changes made to the permit related to control measures and SWPPP requirements; and
2. ADEQ may specifically allow a facility to be covered under the MSGP 2010 even if one of the two identified criteria is not met. ADEQ may perform a detailed analysis and determine that for a specific facility, coverage under the permit is appropriate (e.g., does not backslide from previous permit requirements).

***Discharges Subject to Effluent Limitations Guidelines*** (Part 1.1.4.4). Discharges subject to stormwater-specific federal effluent limitations guidelines that are eligible for coverage under the permit are listed in Tables 1-1 and 6-1 of the permit. All other stormwater and non-stormwater discharges subject to effluent limitation guidelines must be covered under an applicable alternate permit. The effluent limitation for coal pile runoff is limited to steam electric generating facilities (Sector O) in the MSGP 2010. Under the MSGP 2000, coal pile runoff was required to meet effluent limitation guidelines regardless of the industrial sector. Discharges subject to effluent limitations guidelines are discussed in greater detail in Section IX.B.2.

***New Dischargers to Water Quality Impaired Waters*** (Part 1.1.4.5). This section gives additional requirements for coverage under the permit for new dischargers to impaired waters. For new dischargers to impaired waters, to be covered under the permit, the applicant must demonstrate that either: 1) stormwater is not exposed to the pollutant for which the water body is impaired, 2) discharges have no potential to contain the pollutant for which the water body is impaired, or 3) the discharge will not cause or contribute to an exceedance of an applicable water quality standard. In addition to the demonstration the applicant must submit the SWPPP with the NOI. The SWPPP shall identify additional control measures needed to further minimize the discharge of pollutants to ensure that the discharge will not cause or contribute to non-attainment of standards in the impaired water. ADEQ has 32 business days to review NOIs for discharges to impaired waters and notify the applicant in writing that: coverage is granted, request modifications to the SWPPP, or that the discharge is ineligible for coverage under this permit. If



the discharge is to an upstream tributary within 2.5 miles of an impaired water, the SWPPP must be submitted with the NOI.

In accordance with A.A.C. R18-11-109(D)(2), suspended sediment concentrations in surface waters within 48 hours of a local storm event are not used in assessing compliance with the water quality standard. Therefore, if a receiving water is impaired for suspended solids, turbidity or sediment/ sedimentation, a mine operator seeking authorization to discharge under the permit may satisfy the requirement of Part 1.1.4.5(1)(c)(i) of the permit either by not discharging only within the first 48 hours have elapsed after a local storm event, or by demonstrating that any discharge after that time satisfies the requirements of Part 1.1.4.5(1)(c)(i).

***Discharging into Outstanding Arizona Waters*** (Part 1.1.4.6). Per the antidegradation rules, coverage under the MSGP 2010 is not available for new discharges directly to waters designated as outstanding Arizona waters (OAW). The MSGP 2000 stated that “you are not authorized for discharges that do not comply with your State or Tribe’s antidegradation policy for water quality standards.” The current permit specifically reflects 40 CFR 131.12(a)(3) by indicating that any new or increased discharges to OAWs are ineligible for permit coverage. Except for certain temporary changes, water quality cannot be lowered in OAWs (see 40 CFR 131.12(a)(3)).

This section also provides additional requirements for applicants seeking new or expanded discharges to tributaries upstream of an OAW. The applicant must prepare a SWPPP that demonstrates the discharge will not degrade water quality in the OAW and outline basic information that must be included with the SWPP, including a sampling and analysis plan (SAP) for required water quality monitoring. If the discharge is within 2.5 miles of an OAW, the SWPPP must be submitted with the NOI. ADEQ has 32 business days to review NOIs for discharges to impaired waters and notify the applicant in writing that: coverage is granted, request modifications to the SWPPP, or that the discharge is ineligible for coverage under this permit.

#### ***IV.B. Permit Compliance (Part 1.2)***

Part 1.2 states that any failure to comply with the conditions of the permit constitutes a violation of the CWA. Where requirements and schedules for taking corrective actions are included, the time intervals are not grace periods, but are schedules considered reasonable for making repairs and improvements. For provisions specifying a time period to remedy noncompliance, the initial failure, such as a violation of a numeric or non-numeric effluent limitation, constitutes a violation of the MSGP and the CWA, and subsequent failure to remedy such deficiencies within the specified time periods constitutes an independent, additional violation of the permit and CWA.

#### ***IV.C. Authorization under the MSGP 2010 (Part 1.3)***

***Obtaining Authorization to Discharge*** (Part 1.3.1). To obtain authorization under the permit, operators must: meet the Part 1.1 eligibility requirements; select, design, install, and implement control measures in accordance with Part 2.1 to meet numeric effluent limitations and water quality standards; develop a SWPPP according to the requirements of Part 5 of the permit and submit a complete and accurate Notice of Intent (NOI) to ADEQ. In addition to submittal of an NOI and development of a SWPPP, if the applicant will discharge to a municipal separate storm sewer system (MS4) the applicant must provide the name of the MS4 on the NOI and provide a copy of ADEQ’s Authorization to Discharge to the MS4 operator. The NOI & No Exposure Certification instructions include a list of regulated MS4s.

For routine authorizations, most operators are authorized to commence discharging upon ADEQ issuance of an Authorization to Discharge, or 7 calendar days after submittal of a complete and accurate NOI. In order to rely on this 7-day provision, the operator must submit the NOI in a manner that documents the date of ADEQ's receipt (i.e., certified mail, hand delivery, fax, etc.).

ADEQ does not currently have an electronic submittal system for the MSGP 2010 that is comparable to the AZPDES Construction General Permit (CGP) Smart NOI system or EPA's e-NOI. Other options (i.e., electronic submission) may become available in the future. If that occurs, the Department will notify dischargers of the alternatives either directly, by public notice, or by making information available on the Internet. Under the permit, NOIs and Notices of Termination (NOT) (or a photocopy/ reproduction) shall be signed and dated in accordance with Appendix B.9 of the permit and submitted via fax, regular mail or overnight/ express to ADEQ at the address provided in Part 7.6 of the permit.

Table 1-2, summarizes NOI Submittal Deadlines. ADEQ's discharge authorization is organized according to type of discharger. The majority of dischargers must file an NOI for coverage under the MSGP 2010 within 120 calendar days of the permit's date of issuance. A discussion of the Table 1-2 information follows:

- **Existing dischargers** in operation as of October 30, 2005 and authorized for coverage under MSGP 2000: no later than 120 calendar days after the authorization date of the MSGP 2010 (i.e., the date of the director's signature on the MSGP 2010). The operator's authorization under the MSGP 2000 is administratively continued until coverage under this or an alternative permit is granted, or a Notice of Termination (NOT) is submitted;
- **Other eligible dischargers** in operation prior to October 30, 2005 but not covered under MSGP 2000 or another AZPDES permit: These facilities, although technically discharging without AZPDES permit coverage, are also granted 120 calendar days after the authorization date of the MSGP 2010. Coverage begins upon the operator's receipt of the Department's Authorization to Discharge;
- **New dischargers** that commence discharging after October 30, 2005: 120 calendar days after the authorization date of the MSGP 2010 for new dischargers that could not receive coverage under the expired MSGP 2000. For new discharges commencing after issuance of the MSGP 2010, an NOI must be submitted at least 32 business days before discharge is anticipated. Coverage begins upon the Department's Authorization to Discharge;
- **Change of ownership** and/or operation to a new owner/ operator of an existing facility (discharger) whose discharge is authorized under the permit: The permitted owner/ operator must submit a NOT to ADEQ within 30 calendar days after the new owner/ operator assumes responsibility for the facility. At least seven (7) calendar days prior to taking operational control of the facility, the new owner/ operator must submit a NOI to ADEQ. Coverage is transferred and continues under the new ownership.

Based on a review of the NOI or other information, ADEQ may delay the authorization of the operator's discharge, or may deny coverage under the permit and require submission of an application for an individual AZPDES permit.

If ADEQ does not receive a complete and accurate NOI certifying that the eligibility requirements of Part 1 of the permit have been met, ADEQ will notify the applicant/operator that the application is deficient or incomplete. In some cases, the applicant/operator may be required to implement additional controls before ADEQ will authorize stormwater discharge.

If the applicant seeks authorization for a new discharge to an impaired water, a copy of the SWPPP, along with the NOI, must be submitted to the Department. The department will review the SWPPP to determine whether the selected BMPs and control measures are sufficiently protective of water quality. In some cases, the applicant/operator may be required to implement additional controls before ADEQ will authorize stormwater discharge.

An applicant/operator will be authorized to commence discharging upon receipt of ADEQ's authorization document containing the "AZMSG—" approval number. Generally, Authorizations to Discharge to waters other than OAWs or impaired waters, should be issued within 7 calendar days from receipt of a complete and accurate NOI.

The deadline for existing dischargers, as described above, was increased from 60 calendar days from the effective date of the final MSGP 2000 to 120 calendar days for existing and other eligible dischargers in operation prior to October 30, 2005. New dischargers in the MSGP 2000 were required to submit NOIs 2 days prior to commencing operation of the facility.

The MSGP 2010 identifies a category of dischargers that was not identified in the MSGP 2000, "other eligible dischargers not covered under MSGP 2000 or another AZPDES permit", which include facilities for which coverage under a general permit for stormwater discharges has lapsed or for which no prior permit coverage had been obtained despite ongoing stormwater discharges. Such "other eligible dischargers" are granted the same 120 calendar day time frame to file for coverage under the MSGP 2010.

Discharge Authorization Date: Under the MSGP 2000, existing dischargers were given continued coverage under the MSGP 1995 for a period of 90 days while those dischargers obtained permit coverage. The MSGP 2010 allows for administrative continuance of the permit for existing dischargers until the new permit is issued and the existing discharger obtains coverage under the new permit or an alternative permit, or submits a Notice of Termination.

**Continuation of the permit** (Part 1.3.2). If the permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, the Department has the authority to administratively extend coverage for existing dischargers, in accordance with A.A.C. R18-9-C903(A). If coverage is provided to a permittee prior to the expiration date of the MSGP 2010, the permittee is authorized to discharge under the permit until the earliest of: (1) the authorization for coverage under a reissuance or replacement of the permit, following timely and appropriate submittal of a complete NOI; (2) submittal of a Notice of Termination; (3) denial of coverage under the MSGP 2010, or issuance or denial of an individual AZPDES permit for the permittee's discharges; or (4) a formal permit decision by ADEQ not to reissue this general permit, at which time the Department will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. As was the case after the MSGP 2000 expired, when the MSGP 2010 expires, ADEQ does not have the authority to provide coverage to facilities that were not authorized to discharge under the MSGP.

#### **IV.D. Terminating Coverage (Part 1.4)**

The purpose of submitting a Notice of Termination (NOT) is to document that a permittee's obligation to manage industrial stormwater is no longer necessary. Permittees should use the paper form to file Notices of Termination unless other options become available (i.e., electronic submission) in the future. A permittee may terminate coverage under the permit by submitting an NOT according to the instructions with the form. The permittee's authorization to discharge under the permit terminates at midnight on the day that a complete Notice of Termination is received by ADEQ. The operator will receive a Notice of Termination

acknowledgement letter from the Department. If ADEQ determines that the NOT is incomplete, the notice is not valid and the permittee must continue to comply with the conditions of the permit. In other words, the permittee remains responsible for the facility's coverage under the permit until the Department terminates the authorization to discharge.

***When to Submit a Notice of Termination.*** The permittee must submit an NOT within 30 calendar days after a new owner or operator has assumed ownership or responsibility for the facility.

Other situations may call for a permittee to submit an NOT, but these would be at the permittee's discretion. This includes situations where: 1) operations at the facility have ceased; or 2) there no longer are discharges of stormwater associated with industrial activity and necessary sediment and erosion controls have already been implemented at the facility as required by Part 2.1.1.5. A permittee must continue to fulfill all of the requirements of the MSGP 2010 (i.e., maintain an updated SWPPP, perform inspections, maintain control measures, perform corrective actions, monitor and report results of stormwater discharge monitoring and other reporting) until the Department receives a complete NOT from the permittee.

Coverage under the MSGP terminates automatically only when the permittee obtains coverage under an individual or alternative general permit for all discharges requiring AZPDES permit coverage. This could happen either because ADEQ required it (see Part 1.6.1 of the permit) or the permittee petitioned ADEQ requesting coverage under an alternative permit. See A.A.C. R18-9-A902(A) and R18-9-A902(B).

#### ***IV.E. Conditional Exclusion for No Exposure (Part 1.5)***

Facilities in Arizona with stormwater discharges associated with industrial activity may qualify for a Conditional Exclusion for No Exposure. Dischargers qualifying for No Exposure Certification must maintain a condition of "no exposure" in accordance with 40 CFR 122.26(g)(4)(iii) and the certification must be renewed by the operator every five years to remain valid. ADEQ permit language revised the EPA language to provide more detail about the intent of the no exposure exclusion and how the operator can qualify for/ comply with this exclusion from MSGP coverage. ADEQ's permit language clarifies that operators covered by this exclusion must allow ADEQ and / or MS4 representatives to inspect the facility and that reports generated from the inspection are available to the public, when requested. Facilities qualifying for coverage under this exclusion are required to furnish a copy of ADEQ's No Exposure Certification acknowledgement letter to the operator of the MS4 into which the facility discharges (where there is a stormwater discharge to the MS4). The No Exposure Certification instructions include a list of regulated MS4s. The permit also explains that ADEQ may revoke or deny the exclusion and require authorization under an individual AZPDES permit with cause.

#### ***IV.F. Alternative Permits (Part 1.6)***

***ADEQ Requiring Coverage under an Alternative Permit*** (Part 1.6.1). ADEQ may require an individual permit or coverage under an alternative AZPDES general permit instead of the MSGP. These regulations also provide that any interested party may petition EPA to take such an action. The issuance of the individual permit or alternative AZPDES general permit is in accordance with 40 CFR Part 124 and provides for public comment and appeal of any final permit decision. The circumstances in which such an action would be taken are set forth at A.A.C. R18-9-C902(A). Part 1.6.1 clarifies that the Department may require any discharger

covered under this general permit to apply for and obtain coverage under an individual permit. The Department will notify the owner or operator in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision and a deadline for the owner or operator to file the application. ADEQ may grant additional time upon request of the applicant. Similarly, any interested person may petition ADEQ requesting the same.

When an individual AZPDES permit is issued to an owner or operator otherwise subject to a general AZPDES permit, the applicability of the general permit to the individual AZPDES permittee is automatically terminated on the effective date of the individual permit.

## **V. Control Measures, Numeric Effluent Limitations and Water Quality Standards (Part 2)**

### **V.A. Control Measures and Technology-Based Effluent Limitations – Definition of “Minimize” (Part 2)**

Part 2 describes the requirements for implementation of stormwater control measures to minimize the discharge of pollutants and meet numeric technology-based effluent limitations and water quality-based requirements. Part 2.1 requires operators to implement, as appropriate, control measures listed in the permit. In previous permits, these were referred to as best management practices (BMPs) and are referred to as non-numeric technology-based limits in the EPA MSGP 2008, but in the MSGP 2010 are known as control measures. Additional control measures may be required for discharges to Arizona listed water quality impaired waters (Part 2.2.3 of the permit).

The permit defines the term “minimize” as follows: “reduce and/or eliminate to the extent achievable using control measures that are technologically available, economically practicable and achievable in consideration of best industry practice to meet any applicable numeric effluent limitations in Part 2.2.1 and the water-quality based requirements in Parts 2.2.2 and 2.2.3.” Permittees are required to select, design, install and implement control measures that reduce or eliminate discharges of pollutants in stormwater to the extent achievable. To determine technological availability and economic achievability, operators need to consider what control measures are considered “best” for their industry, and then select and design control measures for their site that are viable in terms of cost and technology. ADEQ believes that for many facilities minimization of pollutants in stormwater discharges can be achieved without using highly engineered, complex treatment systems. The specific controls included in Part 2.1 emphasize effective “low-tech” measures, such as minimizing exposure to stormwater (albeit, without significantly increasing impervious surfaces), regular cleaning of outdoor areas where industrial activities may take place, proper maintenance of equipment, diversion of stormwater around areas where pollutants may be picked up, minimization of runoff through infiltration and flow dissipation practices, and effective advanced planning and training (e.g., for spill prevention and response).

#### **V.A.1. Introduction to CWA Requirements to Control Pollutants in Discharges**

The CWA requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges. Water quality-based requirements are

required by CWA Section 301(b)(1)(C). Water quality-based requirements are discussed in more detail in Section V.C. Both technology-based effluent limitations and water quality-based requirements are implemented through NPDES permits. See CWA sections 301(a) and (b).

## **V.A.2. Explanation of the Use of Control Measures to Meet the Permit Limits**

Typically, permittees are not mandated to select, design, install and implement specific control measures. These decisions are the purview of the operator to determine what must be done to meet the applicable requirements established in Part 2.2, which include technology based effluent limitations and water quality based requirements. How this is achieved will vary by facility. Each of these control measures is acceptable and appropriate in some circumstances.

Control measures can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to prevent or minimize water pollution. They can be just about anything that “does the job” of preventing deleterious substances from entering the environment, and of meeting applicable limits. The MSGP 2010 requires industrial facility operators to select, design, install, and implement site-specific control measures to meet these limits. Most industrial facilities already have such control measures in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations. The permit along with this Fact Sheet provides examples of control measures, but operators must tailor these to their facilities as well as improve upon them as necessary to meet permit limits. The examples emphasize prevention over treatment. However, sometimes more traditional end-of-pipe treatment may be necessary, particularly where a facility might otherwise cause or contribute to a violation of water quality standards in the receiving water.

There are many control measures that could be used to meet the limits in the permit. The following are helpful resources for developing and implementing control measures for a facility:

- Sector-specific *Industrial Stormwater Fact Sheet Series*, ([www.epa.gov/npdes/stormwater/msgp](http://www.epa.gov/npdes/stormwater/msgp));
- *National Menu of Stormwater BMPs* ([www.epa.gov/npdes/stormwater/menuofbmps](http://www.epa.gov/npdes/stormwater/menuofbmps));
- *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* ([www.epa.gov/owow/nps/urbanmm/index.html](http://www.epa.gov/owow/nps/urbanmm/index.html)); and
- *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* ([http://cfpub2.epa.gov/npdes/pkeyword.cfm?keywords=industrial+activities&program\\_id=0](http://cfpub2.epa.gov/npdes/pkeyword.cfm?keywords=industrial+activities&program_id=0)).

## **V.B. Control Measures (Part 2.1)**

Part 2.1 requires the operator to select, design, install and implement control measures to meet the numeric effluent limitations and water quality standards listed in Part 2.2. The selection, design and implementation of these control measures must be in accordance with good engineering practices and manufacturer’s specifications. Regulated stormwater discharges from the facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility. If operators find their control measures are not minimizing pollutant discharges adequately, the control measures must be modified as expeditiously as practicable.

### V.B.1. Control Measure Selection and Design Considerations (Part 2.1.1)

The permit requires permittees to implement appropriate control measures (found in Parts 2.1.1 and 8 of the permit). ADEQ expects that the implementation of control measures will result in the reduction or elimination of pollutants from the operator's stormwater discharge to meet the effluent limitations and water quality standards in the permit. The permittee is not limited to control measures specified in the permit. ADEQ encourages permittees to consider new control measures or new applications of existing practices at times during permit coverage when adjustments to their selection, design and implementation are being considered (e.g., when corrective action is triggered). This will help ensure that control measures continue to reflect best industry practice.

The broader term "Control measures" has replaced "best management practices" and "BMPs" in the MSGP 2010. This change was adopted to better describe the range of pollutant reduction practices that may be employed, whether they are structural, non-structural or procedural. In addition, the definition of "control measures" in Appendix A of the permit includes both BMPs and "other methods" used to prevent or minimize the discharge of pollutants to receiving waters. The greater breadth of meaning of control measures vis-à-vis BMPs is why ADEQ uses this term in Part 2.1, and throughout the permit.

In Part 2.1.1 operators are required to consider certain factors when selecting control measures, including:

- Preventing stormwater from coming into contact with polluting materials is generally more effective and less costly than trying to remove pollutants from stormwater;
- Using combinations of control measures is more effective than using control measures in isolation for minimizing pollutants;
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to determining which control measures will achieve the limits in the permit;
- Minimizing impervious areas at the facility and infiltrating runoff onsite (via bioretention cells, green roofs, pervious pavement, etc.) can reduce runoff, and improve groundwater recharge and stream base flows in local streams (although care must be taken to avoid groundwater contamination);
- Attenuating flow using open vegetated swales and natural depressions to reduce in-stream impacts of erosive flows;
- Conserving and restoring riparian buffers will help protect streams from stormwater runoff and improve water quality; and
- Using treatment interceptors (e.g., swirl separators, oil-water separators, sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

The following is a summary of the types of control measures permittees should evaluate and implement as appropriate in order to minimize pollutants in stormwater discharges:

***Minimize Exposure to Stormwater*** (Part 2.1.1.1). The permit directs the permittee to minimize the exposure of manufacturing, processing, and material storage areas to precipitation and runoff through a number of options. ADEQ uses similar language to EPA's permit and requires the permittee to minimize exposure by implementing one or more of the suggested protections as determined appropriate for the facility and location.

To the extent technologically available and economically practicable and achievable, locate industrial materials and activities inside or protect them with storm-resistant coverings. This is one of the most important control options. In minimizing exposure, the permittee should pay particular attention to manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, and cleaning, maintenance, and fueling operations). Minimizing exposure prevents pollutants from coming into contact with precipitation and can reduce the need for control measures to treat or otherwise reduce pollutants in stormwater runoff. Examples include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be very effective. While the permit requires consideration of exposure minimization, neither EPA nor ADEQ recommends significantly increasing impervious surfaces to achieve it.

**Good Housekeeping** (Part 2.1.1.2). Keep all exposed areas that are potential pollutant sources clean. Good housekeeping is an inexpensive way to maintain a clean and orderly facility and keep contaminants out of stormwater discharges. Often the most effective first step towards preventing pollution in stormwater from industrial sites simply involves using common sense to improve the facility's basic housekeeping methods. Poor housekeeping can result in more stormwater running off a site than necessary and an increased potential for stormwater contamination. A clean and orderly work area reduces the possibility of accidental spills caused by mishandling of chemicals and equipment. Well-maintained material and chemical storage areas will reduce the possibility of stormwater mixing with pollutants.

There are some simple procedures a facility can use to implement the good housekeeping control measure, including improved operation and maintenance of industrial machinery and processes, improved materials storage practices, better materials inventory controls, more frequent and regular clean-up schedules, maintaining well organized work areas, and education programs for employees about all of these practices.

Examples of methods to implement the good housekeeping measure include containerizing materials appropriately, storing chemicals neatly and orderly; maintaining packaging in good condition; promptly cleaning up spilled liquids; sweeping, vacuuming or other cleanup of dry chemicals and wastes to prevent them from reaching receiving waters, and using designated storage areas for containers or drums to keep them from protruding where they can be ruptured or spilled. Proper storage techniques can include:

- Providing adequate aisle space to facilitate material transfer and easy access for inspections;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Stacking containers according to manufacturers' instructions to avoid damaging the containers from improper weight distribution;
- Storing containers on pallets or similar devices to prevent corrosion of the containers, which can result when containers come in contact with moisture on the ground; and
- Assigning the responsibility of hazardous material inventory to a limited number of people who are trained to handle hazardous materials.

**Maintenance** (Part 2.1.1.3). Regularly inspect, test, maintain and repair or replace all industrial equipment and systems to prevent releases of pollutants to stormwater. Maintain all control



measures in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel trained).

Most facilities will already have preventive maintenance programs (PMPs) that provide some environmental protection. Preventive maintenance involves regular inspection and testing of equipment and operational systems to uncover conditions such as cracks or slow leaks that could cause breakdowns or failures that result in discharges of pollutants to storm sewers and surface water. To prevent breakdowns and failures operators should adjust, repair or replace equipment.

As part of a typical PMP, operators must include regular inspection and maintenance of stormwater management devices and other equipment and systems. Operators should identify the devices, equipment and systems that will be inspected; provide a schedule for inspections and tests; and address appropriate adjustment, cleaning, repair or replacement of devices, equipment and systems. For stormwater management devices such as catch basins and oil-water separators, PMPs should include the periodic removal of debris to ensure that the devices are operating efficiently. For other equipment and systems, there should be procedures to reveal and correct conditions that could cause breakdowns or failures that may result in the release of pollutants.

The PMP should include a suitable records system for scheduling tests and inspections, recording test results and facilitating corrective action. The program should be developed by qualified plant personnel who evaluate the existing plant and recommend changes as necessary to protect water quality.

***Spill Prevention and Response Procedures*** (Part 2.1.1.4). Minimize the potential for leaks, spills and other releases, which are major sources of stormwater pollution, to be exposed to stormwater. The purpose of this control measure is not only to prevent spills and leaks but, in the event one does occur, to limit environmental damage via development of spill prevention and response procedures. Operators should identify potential spill areas and keep an inventory of materials handled, used and disposed of. Based on an assessment of possible spill scenarios, permittees must specify appropriate material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills and, in the event of a spill, ensure proper and timely response.

Areas and activities that typically pose a high risk for spills include loading and unloading areas, storage areas, process activities, and waste disposal activities. These activities and areas, and their accompanying drainage points, must be addressed in the procedures. For a spill prevention and response program to be effective, employees should clearly understand the proper procedures and requirements and have the equipment necessary to respond to spills.

The following are suggestions to incorporate into spill prevention and response procedures:

- Install leak detection devices, overflow controls and diversion berms;
- Perform visual inspections and identify signs of wear;
- Perform preventive maintenance on storage tanks, valves, pumps, pipes and other equipment;
- Use filling procedures for tanks and other equipment that minimize spills;
- Use material transfer procedures that reduce the chance of leaks or spills;
- Substitute less toxic materials;

- Ensure that clean-up materials are available where and when needed;
- Ensure appropriate security;
- Notify emergency response agencies where necessary (as specified in Part 2.1.2.4).

In the event of a spill, it is important that the facility have clear, concise, step-by-step instructions for responding to spills. The approach will depend on the specific conditions at the facility such as size, number of employees and the spill potential of the site.

***Erosion and Sediment Controls*** (Part 2.1.1.5). Permittees must stabilize and contain runoff from exposed areas to minimize onsite erosion and sediment creation, and the accompanying discharge of pollutants (other pollutants can bind to soil and other particles and be discharged along with the sediment).

Operators must select, design, install and implement controls to address the on-site exposed areas prone to soil erosion. Erosion control practices such as seeding, mulching and sodding prevent soil from becoming dislodged and should be considered first. Sediment control practices such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control practices, such as flow velocity dissipaters and sediment catchers, should be used to back-up erosion control practices.

***Management of Runoff*** (Part 2.1.1.6). Operators must divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff to minimize pollutants in the discharge. Employ practices that direct the flow of stormwater away from areas of exposed materials or pollutant sources. Such practices can also be used to divert runoff that contains pollutants to natural areas or other types of treatment locations.

Operators may consider vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet detention/retention basins. If infiltration is a selected control, permittees should pay special attention to the discussion in Section II.B of this Fact Sheet entitled, “Underground Injection Control Regulations”.

***Salt Storage Piles or Pile Containing Salt*** (Part 2.1.1.7). Enclose or cover piles of salt or piles containing salt used for deicing or other industrial purposes. Implement appropriate measures to minimize the exposure of the piles during the adding to or removing from processes.

Options for implementing the salt pile control measure include covering the piles or eliminating the discharge from such areas of the facility. Preventing exposure of piles to stormwater or run-on also eliminates the economic loss from materials being dissolved and washed away. A permanent under-roof storage facility is the best way to protect chemicals from precipitation and runoff, but where this is not possible, salt piles can be located on impermeable bituminous pads and covered with a waterproof cover.

***Sector-Specific Control Measures*** (Part 2.1.1.8). Permittees must achieve any additional control measures stipulated in the relevant sector-specific controls in Part 8.

***Employee Training*** (Part 2.1.1.9). Operators must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of the permit.

Employee training programs should thoroughly educate members of the Stormwater Pollution Prevention Team (see Part 5.1.1) on their roles in implementing the control measures employed to meet the limits in the permit. Training should address the processes and materials on the plant site, good housekeeping practices for preventing discharges, and procedures for

responding properly and rapidly to spills or other incidents. The training program should also address other requirements in the permit such as inspections and record-keeping.

Training sessions should be conducted at least annually to assure adequate understanding of the objectives of the control measures and the individual responsibilities of each employee. More frequent training may be necessary at facilities with high employee turnover or where stormwater programs are involved or multi-faceted. Often, training could be a part of routine employee meetings for safety or fire protection. Where appropriate, contractor personnel also must be trained in relevant aspects of stormwater pollution prevention.

Training sessions should review all aspects of the control measures and associated procedures. Facilities should conduct spill or incidence drills on a regular basis which can serve to evaluate the employee's knowledge of the control measures and spill procedures and are a fundamental part of employee training. Such meetings should highlight previous spill events or failures, malfunctioning equipment and new or modified control measures.

**Non-Stormwater Discharges** (Part 2.1.1.10). Eliminate non-stormwater discharges that are not authorized by an AZPDES permit. This limit is intended to reinforce the fact that, with the exception of the allowable non-stormwater discharges listed in Part 1.1.3; non-stormwater discharges are ineligible for coverage, pursuant to Part 1.1.4.1. Stormwater discharges that are mixed with non-stormwater sources, other than those specifically identified in and managed in compliance with the permit are not authorized. Non-stormwater discharges that are authorized under a different NPDES/ AZPDES permit may be commingled with discharges authorized under the MSGP 2010.

Where an allowable non-stormwater discharge has been identified, the permittee must document in the SWPPP the location of that discharge and the appropriate control measures implemented to meet limits. Operators must manage all non-stormwater discharge activities in a manner that does not cause nuisance conditions, including erosion in receiving channels or on surrounding properties. In many cases, the same types of controls for contaminated stormwater will suffice for non-stormwater discharges, but the nature and volume of potential pollutants in the non-stormwater discharges must be considered when selecting controls.

Superchlorinated wastewaters (i.e., containing chlorine above residual levels acceptable in drinking water systems) must be retained on-site until the chlorine dissipates, or until the water is otherwise effectively dechlorinated prior to discharge. As with any non-stormwater, if permitted by the local sanitary sewer authority, this wastewater may be discharged to the sanitary sewer. In this case, dechlorination is not required.

Operators needing help in finding and eliminating unauthorized discharges may find the following EPA guidance helpful: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Chapters 7, 8, 9 at: [http://www.epa.gov/npdes/pubs/idde\\_manualwithappendices.pdf](http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf)

**Litter, Garbage, and Floatable Debris** (Part 2.1.1.11). Operators must ensure that litter, garbage and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they leave the site.

Trash and floating debris in waterways have become significant pollutants, especially near areas where a large volume of trash can be generated in a concentrated area. Trash can cause physical impairments in waterbodies to aquatic species and birds and is also visual pollution and detracts from the aesthetic qualities of receiving waters.

This control measure may be implemented either through source control or structural control measures. For instance, to prevent garbage from being carried in runoff to receiving waters, source control would include personnel education, improved infrastructure and cleanup campaigns. Education, such as informing employees about options for recycling and waste disposal and about the consequences of littering, is one of the best ways. Another topic that should be emphasized is proper trash storage and disposal. Improved infrastructure can include optimizing the location, number, and size of trash receptacles, recycling bins, and cigarette butt receptacles based on expected need. Clean-up campaigns are an effective way to reduce trash. Facilities should determine whether the number and placement of receptacles are adequate and if regular maintenance activities (e.g., sweeping, receptacle servicing) are preventing litter from entering receiving waters. Structural controls to prevent garbage from being carried in runoff to receiving waters include physical filtering structures and continuous deflection separation. Filtering structures concentrate diffuse, floating debris and prevent it from traveling downstream. Some examples are trash racks, mesh nets, bar screens and trash booms. Continuous deflection separation targets trash from storm flows during and after heavy precipitation.

***Dust Generation and Vehicle Tracking of Industrial Materials*** (Part 2.1.1.12). Operators must minimize generation of dust and off-site tracking of raw, final or waste materials.

Dust control practices can reduce the activities and air movement that cause dust to be generated. Airborne particles pose a dual threat to the environment and human health. Dust carried off-site increases the likelihood of water pollution. Control measures to minimize the generation of dust include:

- *Vegetative Cover.* In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. By establishing a vegetative cover, exposed soil is stabilized and wind velocity at ground level can be reduced, thus reducing the potential for dust to become airborne.
- *Mulch.* Mulching can be a quick and effective means of dust control for a recently disturbed area.
- *Wind Breaks.* Wind breaks are barriers (either natural or constructed) that reduce wind velocity through a site which then reduces the possibility of suspended particles. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall or sediment wall.
- *Stone.* Stone can be an effective dust deterrent in areas where vegetation cannot be established.
- *Spray-on Chemical Soil Treatments (Palliatives).* Examples of chemical adhesives include anionic asphalt emulsion, latex emulsion, resin-water emulsions and calcium chloride. Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have on the surrounding environment, including waterbodies and wildlife.

To reduce vehicle tracking of materials, the operator should keep stored or spilled materials away from all roads within the site. Specific measures such as setting up a wash site or separate pad to clean vehicles prior to their leaving the site may be effective as well.

**V.C. Numeric and Water quality-based effluent limitations (Part 2.2)**

The MSGP 2010 includes effluent limitation guidelines and water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Part 2.2 constitute the numeric technology based effluent limitations and WQBELs of the permit. The WQBELs are the Water Quality Standards applicable to the receiving water in A.A.C. R18-11, Article 1. In the permit WQBELs are either referred to as the Water Quality Standards or water quality-based requirements to distinguish them for technology based effluent limitations.

**Numeric Effluent Limitations Based on Effluent Limitations Guidelines** (Part 2.2.1). This requirement holds permittees responsible for complying with any applicable federal effluent limitations guidelines eligible and authorized for coverage under the permit. The following describes where these limits can be found in the permit. The following table corresponds to Table 2-1 in the permit.

Regulated Activity	40 CFR Part/Subpart	Effluent Limitation
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities	Part 418, Subpart A	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.5
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8

**Water Quality Standards** (Part 2.2.2). Each permittee is required to control its discharge as necessary to not cause or contribute to an exceedance of applicable water quality standards. ADEQ expects that compliance with the other conditions in the permit (e.g., the control measures, corrective actions, etc.) will result in discharges that are controlled as necessary to not cause or contribute to an exceedance of water quality standards in the receiving water body. If the permittee becomes aware, or ADEQ determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions and ADEQ notification are required. In addition, at any time ADEQ may impose additional, more stringent water quality-based requirements on a site-specific basis, or require an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

ADEQ reserves the authority to require more stringent requirements where necessary to meet applicable standards, or, alternatively, to require the permittee to apply for an individual permit.

The permit contains additional protections to ensure compliance with water quality standards in its corrective action requirements. For instance, a particularly intense storm event may overwhelm one or more of the control measures employed at the site, leading to a short-term violation of the effluent limits. Alternatively, the operator may discover that a control measure installed in good faith to meet a particular purpose is not functioning as anticipated (e.g., because it is incorrectly sized for the site). The MSGP requires that permittees adjust their control measures during the permit term to respond to any such unanticipated event or deficiency. In this way, the operator may improve upon the initial selection, design, installation,

or implementation of control measures to further ensure that its discharges are controlled as necessary to meet applicable water quality standards. Activities that may alert an operator to the need to amend or repair control measures include:

- Routine facility inspections (Part 4.1);
- Visual assessments (Part 4.2);
- Comprehensive facility inspections (Part 4.3), including annual reports summarizing such inspections submitted pursuant to Part 7.2;
- Required monitoring for benchmarks, effluent limitations guidelines, specific State or impaired waters; or
- Information provided to ADEQ or the operator by the public (including State or local authorities) suggestive that the control measures are not stringent enough meet the water quality standards.

***Discharges to Water Quality Impaired Waters*** (Part 2.2.3). This is a new provision which defines “impaired waters” as those which have been identified by ADEQ or EPA pursuant to Section 303(d) of the CWA as not meeting applicable State water quality standards and gives the additional permitting requirements for discharges to those waters. This may include both waters with approved TMDLs, and those for which a TMDL has not yet been approved.

The permit requires the permittee to:

- Comply with any additional, more stringent requirements that ADEQ determines are necessary to meet an applicable wasteload allocation or to further control discharges to impaired waters that do not yet have an EPA approved TMDL (See Part 2.2.3).

Prior to or after initial discharge authorization, ADEQ may require additional WQBELs on a site-specific basis, or require the permittee to obtain coverage under an individual permit, if information in the NOI, required reports, or from other sources indicates that, after implementing the control measures in Part 2.1 the facility is causing or contributing to an exceedance of water quality standards or the technology based effluent limitations in Part 2.2.

Part 2.2 includes limits that are as stringent as necessary to achieve water quality standards, consistent with 40 CFR 122.44(d)(1). ADEQ expects that facilities that select, design and implement effective control measures are likely to already be controlling their stormwater discharges to a degree that would make additional water quality-based controls unnecessary.

ADEQ relies on a narrative expression of the need to control discharges as necessary to meet applicable water quality standards, and to employ additional controls where necessary to be consistent with applicable WLAs in an approved TMDL. This is a reasonable approach for the permit, based on the following considerations:

- *Limited waterbody information available about individual dischargers prior to authorization:* ADEQ will not know prior to receiving NOIs from individual dischargers intending to be covered by the permit where these facilities are located and where they discharge. Facility operators must provide information in their NOIs identifying the receiving water into which they discharge. This was not part of the MSGP 2000. These questions are designed to help ADEQ determine what, if any, special protections apply to that water. ADEQ’s receipt of the NOI will trigger a more detailed screening process within the Department geared at determining if any waterbody-specific requirements are appropriate. It is simply impracticable to

anticipate these specific requirements ahead of time, and include as specific detailed requirements in the general permit, without knowing more about where the facility is discharging.

- *Review of the NOI and applicable watershed documents is the appropriate forum for deriving facility-specific WQBELs:* Once ADEQ receives the NOI, the Department will then be in a position to assess whether any more stringent requirements are necessary. For instance, if a particular NOI indicates that the facility will discharge to an impaired waterbody that has an approved TMDL, ADEQ will be able to review the applicable documents to determine if any additional effluent limits are necessary. Among other things, ADEQ will be analyzing the TMDL for applicable WLAs that were meant to apply to industrial stormwater discharges. After that determination has been made, ADEQ will determine how those allocations would translate into permit requirements and whether and to what extent the existing control measures are already controlling the discharge consistent with the WLA. If more stringent controls are necessary, ADEQ will notify the effected facility of the need to comply with stricter limits.
- *ADEQ may modify an operator's receiving water information based on further information.* Although the operator may correctly identify its receiving water, and properly indicate that the discharge is not to an impaired segment, ADEQ may determine on further analysis that the discharge does in fact contribute to a downstream impairment. For instance, notwithstanding an operator's correct determination that its discharge is to an unimpaired stream segment, ADEQ may find, using available TMDL information, or other data that discharges to the unimpaired segment are considered to contribute to a downstream impairment. In such an instance, ADEQ will inform the operator of this determination, and of any additional requirements that may result from the discharge to a downstream waterbody that is impaired.

***Existing Discharge to an Impaired Water with an Approved TMDL*** (Part 2.2.3.1). ADEQ plans to implement a new review process for discharges to impaired waters with an approved TMDL. Where an operator indicates on its NOI that the discharge is to one of these waters, ADEQ will review the applicable TMDL to determine as a threshold matter whether the TMDL includes requirements that apply to the individual discharger or its industrial sector. ADEQ will determine whether any more stringent requirements are necessary to comply with the WLA, whether compliance with the existing permit limits is sufficient, or, alternatively, whether an individual permit application is necessary.

The purpose of Part 2.2.3.1 is to require compliance with applicable requirements in a TMDL and to clarify for the permittee how they will know when such requirements apply. These provisions are intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality based requirements “are consistent with the assumptions and requirements of any available wasteload allocation for the discharge ... .”

***Existing Discharge to an Impaired Water without an Approved TMDL*** (Part 2.2.3.2). If the discharge is to an impaired water without a TMDL, the permit reiterates the requirement for permittees to comply with the Part 2.2.2 requirement to control its discharge as necessary to meet applicable water quality standards and comply with the monitoring requirements of Part 6.2.4. The MSGP 2000 did not specifically address discharges to impaired waters without TMDLs.

***New Discharge to an Impaired Water*** (Part 2.2.3.3). This provision requires new dischargers to impaired waters that have become eligible through Part 1.2.4.5, to implement and maintain any control measures or conditions on the site that enabled the operator to become eligible under that condition, and to modify such measures or conditions as necessary pursuant to Part 3 corrective actions. In other words, the permittee must maintain any control measures in good working order that are necessary to meet the eligibility requirements for new dischargers to impaired waters.

***Antidegradation Requirements for New or Increased Discharges.*** In EPA’s permit, this section is focused on antidegradation requirements for new or increased discharges to Tier 2 or Tier 2.5 waters. In the MSGP 2010, ADEQ has focused additional requirements to ensure water quality protections on discharges to outstanding Arizona waters (OAWs) and tributaries of OAWs rather than Tier 2 waters. (Note: Arizona does not have Tier 2.5 waters under its antidegradation policy.) These added protections are included in Part 1.1.4.6 and deal with demonstrations required to discharge to OAWs; and Part 6.2.4 which requires additional monitoring for discharges to OAWs. The recently adopted surface water quality standards at A.A.C. R18-11-107.01(F) states:

“Antidegradation review of a general permit. The Director shall conduct the antidegradation review of a regulated discharge authorized by a general permit at the time the general permit is issued or renewed. A person seeking authorization to discharge under a general permit is not required to undergo an individual antidegradation review at the time the Notice of Intent is submitted unless the discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters.”

## VI. Corrective Actions (Part 3)

A permittee takes a corrective action to eliminate a problem or condition that has caused a failure of a control measure. The provisions in Part 3 specify the types of conditions at the site that trigger corrective action requirements, what must be done to eliminate such conditions or conduct further inquiries into their cause, and the deadlines for completing corrective action. Failure to implement a required corrective action is a permit violation, in addition to any underlying violation that may have triggered the initial requirement for corrective action. A summary of all corrective actions initiated and/or completed each year must be kept in the annual comprehensive facility inspection report and kept with the SWPPP.

***Conditions Requiring Review and Revision of Control Measures to Eliminate a Problem*** (Part 3.1.1). Permittees are required to review and revise the selection, design, installation, and implementation of their control measures when any of the conditions described below has occurred. The conditions are all clearly indicative of a problem at the site which must be corrected. The permittee is expected to assess why one of the delineated problems occurred and eliminate the problem.

- An unauthorized discharge to a water of the US or a regulated MS4 occurs at the facility;
- A discharge violates a numeric effluent limitation guideline;
- The permittee becomes aware, or ADEQ determines, that the facility’s discharge causes or contributes to an exceedance of applicable water quality standards in the receiving water or an adopted WLA;
- ADEQ, or an operator of a regulated MS4, determines that modifications to control measures are necessary to meet the requirements in Part 2.2.



The corrective action must ensure that any of the above conditions are eliminated. The MSGP 2000 required certain “follow-up actions” to modify the SWPPP document or BMPs to correct problems identified in a comprehensive site compliance evaluation. The MSGP 2010 provides a much greater specificity for correcting deficiencies that trigger the need for corrective actions and the required responses.

Permittees only have WLAs assigned to their discharges when ADEQ completes a TMDL. The TMDL development process includes a public participation process. Through that process all permittees discharging within the area included in the TMDL will be notified and have the opportunity to participate in the development of the TMDL. Through the TMDL process permittees can comment on Proposed WLAs and are made aware of the WLAs assigned.

ADEQ’s MSGP 2010 differs from EPA’s MSGP 2008 in that the MSGP 2010 does not require corrective action responses to conditions requiring review to determine if modifications are necessary. Routine facility inspections, visual assessments, or comprehensive facility inspections may reveal that control measures are not being properly operated and maintained or the average of sampling results may exceed an applicable benchmark. When one or more such conditions exist at a facility, the permittee is expected to perform further analysis to determine if revision to the site’s control measures is necessary. Although the Department does not view these conditions as part of a corrective action, the permittee is expected to remedy the situation, when discovered and before it produces a discharge in violation of the permit. For instance, if an unauthorized release has occurred at the site, this is a condition that requires attention by the permittee to ensure that it is not repeated. If, on the other hand, the average of the permittee’s four benchmark sampling results exceeds a benchmark, further analysis is necessary to decide whether the discharge of the pollutant can be further minimized using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

***Substantially Identical Outfalls*** (Part 3.1.2). If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the permittee’s review must assess the need for corrective action for each outfall represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event. Assessing every substantially identical outfall may not be possible before the next measurable storm event, but permittees should develop, document, and implement a schedule based on the likelihood of discharge.

***Corrective Action Deadlines*** (Part 3.2). The permit includes specific deadlines for permittees to take corrective actions. Part 3.2 requires that within 72 hours following identification or discovery of any of the conditions listed in Parts 3.1, the permittee must document such discovery. Subsequently, within 14 calendar days of the discovery, the permittee must document corrective actions taken or to be taken to eliminate the condition and any additional review necessary to further investigate the condition. If the permittee determines that changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event. The time limits are considered reasonable for documenting that a problem has been identified and then conducting the required analysis and making any necessary repairs or modifications. These timeframes are included to ensure that deficiencies are corrected expeditiously. Failure to take the required corrective action within the stipulated time limit constitutes an independent permit violation.

While changes to control measures are still required by the next anticipated storm event, where feasible, the permit does not cap the amount of time to complete corrective action at 12 weeks as was done in MSGP 2000. This change was made in response to comments raising the concern that the 12-week timeframe did not account for the time it might take to complete the necessary evaluations and select, design, and install new or modified control measures. Actions must still be taken by the next anticipated storm event where feasible, but this change allows flexibility where the need exists. In the vast majority of cases, corrective action reviews will identify responses that can be taken quickly, either before the next storm event or shortly thereafter. Permittees are expected to document and justify any schedules for selecting, designing, and installing new or modified control measures.

The MSGP 2010 contains new language clarifying that permittees must document deficiencies immediately (i.e., within 72 hours) as a way to more clearly provide a starting point on which corrective actions are to be based. This initial documentation need not be detailed but merely to acknowledge the date of the finding and a general discussion of the findings of the review that necessitates corrective action. More detailed documentation, as described below, continues to be required within 14 calendar days of the discovery.

***Corrective Action Report*** (Part 3.3). The purpose of Part 3.3 is to ensure compliance with corrective action requirements through increased accountability and oversight. Ongoing assessment of control measure effectiveness and corrective actions is an integral part of an effective stormwater management program. Hence, permittees must document basic information for any event described in Part 3.1 and the permittee's response to that event. As described above, the permit establishes conditions for both 72-hour and 14-day response periods. The Corrective Action section (Section D) of the Annual Report Form should be used by permittees to clarify expectations for documentation of conditions triggering a response and the details of the response taken. For triggering events affecting substantially identical outfalls (see Part 3.1.2), ADEQ intends that permittees document substantially identical outfalls in the same manner as the conditions required in Part 3.1.1. As described in Part 5 of the permit, permittees are required to maintain a copy of this documentation with their SWPPP. Permittees with facilities that discharge to an impaired water or OAW must also submit this information in an annual report.

All dischargers are required to document corrective actions taken in the annual comprehensive facility inspection (CFI) report. In addition, those facilities that discharge to impaired waters or OAWs, in accordance with Part 7.2 of the permit, are required to submit Annual Reports identifying corrective actions taken by permittees over the course of the previous year. ADEQ expects that information submitted in the Annual Report, or documented in the CFI, will help determine how well operators are responding to potential deficiencies on the ground and where a facility may require further Department oversight. The MSGP 2010 expands on the MSGP 2000 requirement by requiring permittees to identify any deficiencies and corresponding corrective actions whether that is done as part of a comprehensive evaluation or any other instance when such a deficiency is identified.

## **VII. Inspections (Part 4)**

Part 4 describes the inspection and evaluation of the performance of existing stormwater control measures. Generally, the permit requires all facility operators to conduct three types of inspections every year: routine quarterly inspections; four visual assessments (two in the summer and two in the winter wet seasons – see Section IX.A.4 of this Fact Sheet) during times of

stormwater discharge; and an annual comprehensive facility inspection. The permit specifies in detail the monitoring and reporting requirements for each type of monitoring. Each is described in more detail below. Inactive and unstaffed sites qualify for certain exceptions, which are described in the sections below.

Permittees must conduct the inspections at the facility in accordance with Parts 4.1, 4.2, and 4.3 of the permit. If, during any routine inspection, quarterly visual assessment, or comprehensive facility inspection, the facility's control measures are found not to be properly operated and / or maintained, the permittee shall review the selection, design, installation, and implementation of the control measures to determine if modifications are necessary to meet the requirements in Part 2.2 in the permit. Such modifications shall be documented in the SWPPP and implemented as expeditiously as practicable.

### ***VII.A. Routine Facility Inspections (Part 4.1)***

Permittees are required to conduct routine inspections, at least quarterly, of all areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the requirements in Part 2.2 of the MSGP. Routine facility inspections are less formal evaluations of the facility's exposed industrial activities than the comprehensive facility inspections required in Part 4.3 of the MSGP 2010. A routine facility inspection provides permittees with a mechanism to ensure that developing problems are detected and addressed early and helps ensure that stormwater control measures are adequate and are operated and maintained properly.

Qualified personnel must conduct the routine facility inspections with at least one member of the Pollution Prevention Team participating. If only one person regularly conducts the inspection, that individual must be the Pollution Prevention Team member. Because some equipment, processes, and procedures may require more frequent inspections, the relevant inspection schedules must be documented in the SWPPP. For example, inspection of outdoor areas associated with regular industrial activity may require more frequent inspections to ensure that the site is swept, garbage picked up, drips and spills cleaned, etc. on a regular basis.

Part 4.1 elaborates on the specific information to be documented for each routine inspection. Most importantly, this documentation must include when the inspection took place, who conducted the inspection, and any indication that controls may not be adequate or are not functioning properly. The findings of these routine inspections must be maintained on-site with the SWPPP.

Weather information for the period since the last inspection is a required part of the routine facility inspection documentation and should include the type of information discussed in EPA's 2009 SWPPP Guide, such as:

- Best estimate of the beginning of each storm event,
- Duration of each event,
- Time elapsed since last storm event,
- Approximate amount of rainfall for each event (in inches);
- Estimate of the temperature; and
- Any other relevant ambient conditions.

Some industry sectors have more specific routine inspection requirements, which are described in more detail in Part 8 of the permit for the relevant sectors.

At least once each calendar year, the routine facility inspection must be initiated during a period when a stormwater discharge is occurring. As permittees are also required to perform visual monitoring, benchmark monitoring, and effluent limitations monitoring during storm events, permittees may combine two or more of these activities, when possible, during an inspection. This is a potentially important tool for the permittee to be able to better identify sources of pollutants discharged in stormwater runoff from the facility and to actively observe the effectiveness of control measures.

A number of changes were made to the routine inspection requirements in comparison to the MSGP 2000, including:

- Specifying a minimum frequency of quarterly inspections – Except for some sector-specific requirements, the MSGP 2000 did not specify any generally-applicable frequency for routine inspections. Part 8 of the MSGP 2010 requires some sectors to conduct inspections on more frequent intervals;
- Adding the requirement to initiate at least one routine facility inspection each year in response to a measurable storm event. The inspection must commence not more than 24 hours after the end of a storm event, but not 24 hours after the discharge ceases;
- Adding details on the minimum elements of a routine facility inspection report; and
- Adding a requirement that at least one member of the Stormwater Pollution Prevention Team must participate in the inspection. There is no limit on whom or the number of persons that may be included on the Pollution Prevention Team. The intent of this new requirement is not to require any particular plant officer to participate in inspections or to specify either a minimum or maximum number of persons to conduct an inspection. Instead, the intent is to ensure that inspections are carried out by qualified personnel. By requiring that inspectors be formally identified as part of the Stormwater Pollution Prevention Team will help ensure that they are properly trained to carry out effective inspections. The permittee may choose to have only one person perform these inspections, provided that the individual meets the definition of a qualified person in Appendix A and is a member of the Pollution Prevention Team.

The routine inspection requirements in the MSGP 2000 also included a requirement to modify the SWPPP within 14 days of the inspection if deficiencies in the SWPPP were identified. See Section VI of this Fact Sheet for additional discussion of corrective action in response to inspection findings.

### ***VII.B. Visual Assessment of Stormwater Discharges (Part 4.2)***

Visual assessments provide a useful and inexpensive means for permittees to evaluate the effectiveness of their control measures. The MSGP 2010 requirement for visual assessments was changed from quarterly (as in the two previous MSGPs) to one that is more compatible with Arizona's summer and winter wet seasons. While four visual inspections must be conducted annually, they are to be performed during rainfall events in the winter and summer wet seasons. The visual examinations must still be conducted when the site is discharging. A visual assessment can be conducted concurrently with a routine facility inspection required by Part 4.1.

Periodic visual inspections of a facility are necessary to ensure that the SWPPP addresses any significant changes to the facility's operations or control measure implementation procedures. All industrial sectors covered by the permit are required to conduct these

examinations. To ensure that all inspection and assessment requirements were described in the same part of the permit, visual assessments were moved from the monitoring section of the MSGP 2000 to a new Part 4.2 in the MSGP 2010 that addresses inspections.

The permit requires that grab samples of stormwater discharges be taken and examined visually for the presence of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. No analytical tests are required to be performed on these samples. The grab samples must be taken within the first 30 minutes or as soon as practicable after the occurrence of an actual discharge from the site (including documentation of why sampling was not practicable within the first 30 minutes). The permit no longer requires a storm event of at least one-tenth (0.1) inch or that this discharge occurs during daylight hours; instead, the trigger for visual monitoring simply requires that the precipitation event causes an actual discharge.

*Areas Subject to Snow:* In areas subject to snow, the permittee may complete one wet season visual assessment by collecting snowmelt discharge. Significant snowfall only occurs regularly in the high country in Arizona, which is the only place the Department would expect such sampling to be applicable. These snowfall events tend to be isolated in geography and occurrence (i.e., relatively infrequent), so for practical purposes, the permit does not require that these snowmelt samples be collected within the first 30 minutes of discharge as is the case for samples collected during rain events.

Permittees must document the results of their visual assessments in a report that includes the sample location, date and time, personnel collecting the sample and performing visual assessments, results of the observations, and probable sources of any observed stormwater contamination. The visual examination reports must be maintained onsite with the SWPPP.

When conducting a stormwater visual examination, the pollution prevention team, or individual team member, should attempt to relate the results of the examination to potential sources of stormwater contamination on the site. For example, if an oil sheen is observed, facility personnel (preferably members of the pollution prevention team) should conduct an inspection of the area of the site draining to the examined discharge to look for obvious sources of spilled oil, leaks, etc. If a source can be located, then this information would allow the facility operator to immediately conduct a clean-up of the pollutant source, and/or to revise control measures to minimize the contaminant source.

### ***Exceptions to Visual Assessments (Part 4.2.3)***

*Absence of Discharge:* Permittees are excused from visual assessments for the facility or outfall(s) during a particular wet season when no storm event results in a discharge, provided that the permittee documents in the monitoring records and retains with the SWPPP why a sample could not be collected. This is a condition typical of arid climates, such as Arizona's.

*Adverse Conditions:* The permit includes exceptions to these requirements in order to account for circumstances during which conducting visual assessments may be infeasible, namely during adverse conditions (e.g., dangerous weather or other conditions of temporary inaccessibility). Typical situations as a result of adverse weather that create dangerous conditions for personnel could be local flooding, high winds, hurricane, tornadoes, or electrical storms or other unsafe conditions that make the collection of a sample temporarily infeasible. Permittees have flexibility to modify their assessment schedule such that the four assessments are conducted over the course of the year during periods when discharges actually occur and can be safely observed.

*Inactive and unstaffed sites:* Operators of inactive and unstaffed sites may invoke a visual monitoring exception if they eliminate all exposure of industrial activities and materials to stormwater, and document this in the SWPPP. This waiver is available to all sectors covered under the permit. All facilities that make use of this waiver must still implement any necessary control measures and comply with other applicable permit requirements. Inactive and unstaffed sites that are unable to meet the “no exposure” requirement must conduct at least on visual assessment.

*Substantially identical outfalls:* Operators with two or more substantially identical outfalls may also elect to conduct a visual assessment at just one of these outfalls each time a visual assessment is performed. However, these assessments must be done on a rotating basis throughout the year to ensure that each substantially identical outfall is periodically observed throughout the period of permit coverage. If stormwater contamination is identified through visual monitoring performed at a substantially identical outfall, the operator must assess and modify his/her control measures as appropriate for each outfall represented by the monitored outfall. The intent is for operators to assess discharges from the entire site over the term of the permit, and address any identified problems at all substantially identical outfalls where the problem may be occurring.

A number of changes were made to the visual assessment requirements in comparison to the MSGP 2000, including:

- “Visual monitoring requirements” were moved from the monitoring part of the permit to the inspections part, under the title, “visual assessment of stormwater discharges;”
- The four visual assessments must be conducted annually; two each during Arizona’s summer and winter wet seasons, rather than quarterly under EPA’s MSGP 2008;
- Added language (“Absence of Discharge”) addressing situations when a discharge does not occur at a facility, even though there may have been several storm events occur during a particular wet season. In such cases, the permittee’s only documentation in the SWPPP or DMR could be “no discharge observed”;
- Replaced the requirement to take samples no later than the first hour of a measurable storm event with language that allows for sampling “as soon as practicable after the first 30 minutes.” The provision also requires documentation with the SWPPP explaining why it was not possible to take samples within the first 30 minutes;
- Deleted the requirement that samples be collected from a discharge resulting from a storm event that is greater than 0.1 inch;
- Provided more flexibility for obtaining four samples a year and avoid unsafe situations when adverse conditions are present;
- Deleted the language “where practicable, the same individual should carry out the collection and examination of discharges for the entire permit term;”
- Modified the inactive and unstaffed sites exemption so that it is only applicable when “there are no industrial materials or activities exposed to stormwater;” and
- Modified the substantially identical outfall exception to clarify that, if possible, visual assessments of such outfalls must be made on a rotating basis so as to cover all outfalls over the course of the permit term.

### **VII.C. Comprehensive Facility Inspections (Part 4.3)**

The MSGP 2010 requires that permittees conduct comprehensive facility inspections (CFI) at least once a year for the entire permit term. The CFI is intended to be more thorough and detailed than the quarterly routine inspections. EPA's annual cycle for CFIs commences on the issuance date of MSGP 2008 permit (i.e., September 28, 2008). ADEQ changed the inspection cycle for conducting the annual CFI to occur not less than 6 months after the previous inspection recognizing that facilities obtain coverage at different times over the course of the permit and to address situations where permittees file for coverage soon after a CFI was conducted under the MSGP 2000. This also allows permittees with multiple sites who must schedule CFIs for their respective facilities greater flexibility in scheduling several sites together. Other language clarifies that should the permit be administratively extended, these inspection requirements continue to apply. Also, the permit provides a one-time waiver for facilities that obtain permit coverage less than three months before the end of one of these inspection periods to allow new permittees more time to fully assess the adequacy of their stormwater control measures.

CFIs may be conducted simultaneously with other site inspections (such as with the routine facility inspection described in permit section 4.1), provided the scope is sufficient to address the minimum requirements of the CFI. Qualified personnel must conduct inspections, and the inspection team must include at least one member of the Pollution Prevention Team. The permit recognizes that only one person may be conducting the inspections, but that individual must be a member of the Pollution Prevention Team and a qualified person. Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and who can also evaluate the effectiveness of controls selected. Permittees may hire outside contractors to perform these inspections; however, signature and certification of inspection reports must be by a duly authorized representative of the facility, as defined in Subsection 11 of Appendix B.

Operators must take note that CFIs are not the same as routine facility inspections. Routine facility inspections (Part 4.1) are required more frequently and are less formal evaluations of the facility's exposed industrial activities. CFIs, as the term implies, require a much more in-depth review of the site and all operations, because they relate to stormwater management and the requirements of the permit.

The CFI must cover all areas of the facility affected by the requirements in the permit including areas where industrial materials or activities are exposed to stormwater, stormwater control measures used to comply with the effluent limitations and water quality-based requirements in the permit, and areas where any leaks, spills, or other unauthorized discharge may have occurred in the last 3 years. The Annual Report Form is recommended as a template for use by all permittees when performing these inspections even though only dischargers to impaired or OAWs are required to file the form with ADEQ each year. The Annual Report Form focuses on assessments at each outfall and the areas of the facility that may contribute stormwater discharges associated with industrial activity to that outfall. The permit identifies the specific activities that may occur at the facility that are to be inspected. Also, the CFI must include observation of stormwater control measures used to meet permit requirements to assess the adequacy of these control measures, including any measures in need of maintenance, repair, or replacement or where additional controls are needed.

The results of each CFI must be documented in a report signed and certified by an authorized company official in accordance with Subsection 11 of Appendix B of the permit. All

permittees shall document the findings of each CFI and maintain this documentation on-site with the SWPPP. Facilities that discharge to or within 2.5 miles of an impaired water or OAW are required to file an Annual Report to ADEQ within 45 calendar days of conducting the CFI consistent with Part 7.2 of the permit. In addition to documenting findings of the assessment and observations described above, the report must also include basic inspection information (e.g., inspectors, date, and AZPDES permit number), must certify if the facility is in compliance with the permit, and must describe any corrective action initiated or completed during the reporting period or required as a result of the inspection.

Under the MSGP 2000, ADEQ received nothing more than the NOI for the majority of permittees during the 5-year permit term. To increase accountability and oversight, ADEQ believes it is important that it receive periodic reports from dischargers to impaired or OAWs indicating that they are actively implementing their stormwater management programs, maintaining their control measures, and complying with the terms and limits in the permit to protect Arizona's impaired waters. ADEQ did not change the specific requirements associated with conducting annual inspections but did provide further clarification in the permit on what is to be assessed during these inspections. To assist permittees with documenting the results of these inspections, ADEQ strongly recommends that permittees use the Annual Report Form as a template to both conduct and report the results of their comprehensive facility inspections. As discussed above, dischargers to impaired or OAWs must submit CFIs with their Annual Report to the Department.

## **VIII. Stormwater Pollution Prevention Plan (SWPPP) (Part 5)**

Part 5 of the permit describes the preparation and documentation requirements of the SWPPP and its availability to the public. To be covered under the permit, the discharger must prepare a SWPPP for the facility before submitting a Notice of Intent (NOI). The SWPPP, together with the additional documentation requirements (see Part 5.4 of the permit), is intended to document the selection, design, installation, and implementation (including inspection, maintenance, monitoring, and corrective action) of control measures being used to comply with the requirements set forth in Part 2.2. The SWPPP documents information on how the permittee intends to comply with the requirements (including inspection, maintenance, evaluation and monitoring, requirements) contained elsewhere in the permit.

There were no material changes to this part. Minor changes were made to conform to other changes in the permit and make it internally consistent. For example: in Part 5.1.2, the site description requirements in the facility's SWPPP must include the items in EPA's permit and, in addition, include the location of drywells on the site map (a drywell is a control measure) and a list with their registration number(s); the location of ephemeral and intermittent streams, arroyos and any surface waters receiving stormwater discharges within the immediate vicinity (e.g., 1 mile radius of the facility).

The permit has been reorganized to more clearly distinguish the effluent limitations from the documentation requirements relating to the SWPPP. The SWPPP itself does not contain effluent limitations; rather it constitutes a tool to assist both the permittee and inspectors in ensuring and documenting that the requirements of Part 2.2 are met. This documentation must be kept up-to-date. Where control measures are modified or replaced, for instance in response to a Part 3.1 triggering condition, such changes must be documented with the SWPPP (See Part



5.4). Permittees that fail to develop and maintain an up-to-date SWPPP have violated the permit. This is a recordkeeping violation and is separate and distinct from a violation of any of the other substantive requirements in the permit (e.g., effluent limitations, corrective action, inspections, monitoring, reporting, and sector-specific requirements).

The initial SWPPP must be completed prior to submitting an NOI for permit coverage to ensure that permittees have (1) taken steps to identify all sources of pollutant discharges in stormwater and (2) implemented appropriate control measures to address these discharges in advance of permit coverage. Part 5.1 of the permit contains most of the required elements to be documented in the SWPPP; however, sector-specific requirements are also included in Part 8 of the permit.

Generally, permittees must document the following: (1) the establishment of a stormwater pollution prevention team; (2) a description of the site; (3) summary of potential pollutant sources; (4) description of control measures; and (5) monitoring and inspection procedures (including schedules).

For permittees covered under a previous MSGP, their existing SWPPP must be reviewed and modified, as necessary, to comply with the MSGP 2010.

### **VIII.A. Contents of the Facility's SWPPP (Part 5.1)**

The SWPPP prepared under the permit must address specific requirements. The MSGP 2010 clarifies the distinction between SWPPP requirements and control measures. In the MSGP 2000 the SWPPP documentation requirements and control measures were combined into one section. This led to confusion over what was a documentation requirement and what was a control measure. The Department believes separating the control measures (Part 2.1) and the SWPPP requirements (Part 5) clarifies the distinction between them.

Permittees may choose to reference other documents in the SWPPP rather than recreating the same text in the SWPPP; however, when referencing other documents, the permittees are responsible for ensuring their SWPPP and the other documents together contain all the necessary elements for a complete SWPPP, as specified in Part 5.1. In addition, permittees must ensure that a copy of the referenced document is located on-site consistent with the requirement in Part 5.3 of the permit.

For example, program documents such as Spill Prevention, Control and Countermeasure (SPCC) Plans that fully meet the documentation requirements for a SWPPP (e.g., facility inspections that incorporate and document stormwater inspection requirements) will fulfill the relevant provision of the permit. ADEQ strongly recommends that, regardless of whether all required SWPPP components are combined into one document, an index be kept which identifies where individual SWPPP components are addressed.

#### **VIII.A.1. Stormwater Pollution Prevention Team (Part 5.1.1)**

Developing a SWPPP requires that a qualified individual or team of individuals be identified as responsible for developing and revising the facility's SWPPP. Additionally, this team is responsible for implementing and maintaining the control measures to meet the requirements of Part 2.2, and taking corrective action where necessary. Inclusion of the team in the plan provides notice to facility staff and management (i.e., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

Team members should be chosen for their expertise in the relevant departments at the facility to ensure that all aspects of facility operations are considered in developing the plan. The SWPPP must clearly describe the responsibilities of each team member to ensure that each aspect of the plan is addressed. Most permittees will have more than one individual on the team, except for small facilities. The permit requires that team members have ready access to any applicable portions of the SWPPP and the permit.

### **VIII.A.2. Site Description (Part 5.1.2)**

The SWPPP must describe activities, materials, and physical features of the facility that may contribute significant amounts of pollutants to stormwater runoff or, during periods of dry weather, result in pollutant discharges through the municipal separate storm sewers or stormwater drainage systems that drain the facility. The SWPPP must also contain both a general location map of the site that shows the location of the facility in relationship to receiving waters and other geographical features, and a more detailed site map that contains information on facility/site characteristics that affect stormwater runoff quality and quantity. For areas of the facility that generate stormwater discharges with a reasonable potential to contain significant amounts of pollutants, the map must indicate the probable direction of stormwater flow and the pollutants likely to be in the discharge. Flows with a significant potential to cause soil erosion also must be identified. The site map must also include locations of: existing structural control measures; receiving waters; stormwater conveyances, inlets and outfalls; potential pollutant sources; past significant spills or leaks; stormwater monitoring points; municipal separate storm sewer systems; and locations and sources of run-on to the operator's site (see permit language for complete list of required items). To improve readability of the map, some detailed information may be kept as an attachment to the site map and pictures may be included as deemed appropriate. A detailed site description such as this assists permittees in subsequent efforts to identify and set priorities for the selection, design, and implementation of measures taken to meet the requirements of Part 2.2 and in identifying necessary changes in materials, materials management practices, or site features.

### **VIII.A.3. Summary of Potential Pollutant Sources (Part 5.1.3)**

The permit requires permittees to identify potential sources of pollutants in stormwater resulting from exposure of industrial activities to stormwater. Identification of sources of pollutants in stormwater is critical for selecting source control practices at the site necessary for meeting permit limits. These data may be useful for facility operators to identify potential pollutants of concern on-site through a comprehensive assessment of existing conditions and available information.

In addition, permittees must document in their SWPPP any allowable non-stormwater discharges that are released. The permit and 40 CFR 122.26(b)(14) define "stormwater discharges associated with industrial activities" to include, but not be limited to: stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. *The*

term “stormwater discharges associated with industrial activity” excludes areas located on plant lands separate from the plant’s industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas.

Additionally, the term “material handling activities” is defined in the permit to include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product.

Part 5.1.3 is only applicable to those parts of the site for which the permittee is covered under the permit. For example, a site that discharges stormwater to an area of the site covered by a different AZPDES permit, is not required to identify the specific activities occurring in that area. ADEQ does expect permittees to clearly identify those areas of the site and describe why they need not be covered under the permit.

Information provided in this section of the SWPPP helps facility operators to identify potential pollutants of concern on-site through a comprehensive assessment of existing conditions and available information. When identifying potential pollutant sources at the site, permittees must consider industrial stormwater from the following sources:

**Activities in the Area (Part 5.1.3.1).** This description must include a list of the industrial activities at the facility, including any co-located industrial activities that may be exposed to stormwater.

**Pollutants (Part 5.1.3.2).** For each of the industrial activities described above, operators must document the associated pollutants or pollutant constituents (e.g., biochemical oxygen demand, suspended solids). The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and that have been exposed to stormwater in the 3 years prior to the date the permittee prepares or amends its SWPPP as well as any additional significant materials that the permittee plans to use during the life of the permit. Permittees are encouraged to identify any additional significant materials that are planned for use during the life of the permit. Such identification is critical for planning purposes when selecting and installing control measures. It also eliminates the need to update the SWPPP every time a new material, that could be a potential pollutant, is brought on site; permittees can incorporate these future plans into the existing SWPPP document as part of the initial SWPPP development.

40 CFR 122.26(b)(12) defines “significant materials” as including but not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report pursuant to section 313 of title III or SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

CERCLA section 101(14) defines “hazardous substance” to include: (A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)); (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act or RCRA); (D) any toxic pollutant listed under CWA section 307(a); (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to

which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The list of CERCLA hazardous substances is provided in 40 CFR 302.4.

**Spills and Leaks (Part 5.1.3.3).** The SWPPP must include a list of any significant spills and leaks of pollutants that occurred in the 3 years prior to the date the SWPPP was developed or amended. New owners of existing facilities should, to the extent practicable, identify any significant spills or leaks attributable to past owners. Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under section 311 of the CWA (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4). Significant spills may also include releases of materials that are not classified as oil or hazardous substances. The list of significant spills and leaks should include a description of the causes of each spill or leak, the actions taken to respond to each release, and the actions taken to prevent similar spills or leaks in the future. This effort will aid operators in developing spill prevention and response procedures and any additional procedures necessary to fulfill the requirements set forth in Part 2.1.1.4 of the permit.

As required in Part 5.4 of the permit, any spills or leaks that occur while covered under the permit must be documented.

Documenting spills does not relieve permittees of any reporting requirements established in 40 CFR 110, 40 CFR 117, and 40 CFR 302, or any other statutory requirements relating to spills or other releases of oils or hazardous substances.

**Non-Stormwater Discharges (Part 5.1.3.4).** Each SWPPP must include documentation that all unauthorized discharges have been eliminated. The documentation must include the date of any evaluation, and describe any test or evaluation conducted to detect such discharges, the results of those evaluations. Acceptable test or evaluation techniques include dye testing, television surveillance, visual observation of outfalls or other appropriate locations during dry weather, water balance calculations, and analysis of piping and drainage schematics. A combination of these mechanisms may be necessary to complete a thorough evaluation. In general, smoke tests should not be used for evaluating the discharge of non-stormwater to a municipal separate storm sewer as many sources of non-stormwater typically pass through a trap that may limit the effectiveness of the test. When unauthorized discharges are discovered, the documentation must also include a description of how those discharges were eliminated.

Part 5.1.3.4 reflects the modification discussed above in Part 2.1.1.10 of the permit to require elimination of unauthorized discharges prior to being authorized to discharge. This SWPPP provision is simply the documentation requirement for the evaluation and elimination of unauthorized non-stormwater discharges. Monitoring for non-stormwater discharges is addressed during the required benchmark monitoring of the stormwater itself, and to the extent the non-stormwater is a component of the stormwater discharge.

Common unauthorized discharges and common resolutions include: re-routing sanitary wastes (e.g., sinks, drinking fountains, toilets) to sanitary sewer systems; obtaining an appropriate AZPDES permit for cooling water or industrial process wastewater discharges; capping or plugging floor drains; and prohibiting practices such as paint brush washing or wash bucket dumping into storm drain inlets.

**Salt Storage (Part 5.1.3.5).** The SWPPP must identify any storage piles containing salt, including piles that only contain salt as a portion of the mixture in the pile, used for deicing or

other commercial or industrial purposes. This documentation requirement tracks the Part 2 requirement to implement stormwater control procedures for onsite salt storage.

**Sampling Data (Part 5.1.3.6).** A summary of all existing data on the quality or quantity of stormwater discharges collected from the facility during the previous permit term must be described in the SWPPP. New dischargers must provide a summary of any available stormwater discharge sampling data they may have, including the methods used to collect the data and the sample collection location. These data may be useful for locating sources and causes of stormwater pollutants.

#### **VIII.A.4. Description of Control Measures (Part 5.1.4)**

A permittee must describe in its SWPPP the control measures it has implemented at its site to achieve each of the requirements in Part 2.2, and to address any stormwater run-on that commingles with discharges covered under the permit. The description of the control measures implemented to meet the requirements in Part 2.2 must include a brief explanation of the measures implemented at the site, including how the Part 2.1.1 selection and design considerations were followed. In comparison to the MSGP 2000, the MSGP 2010 clarifies what was always intended to be the scope of this part of the permit, that the operator describes how the control measures in Part 2.1 were selected and implemented to meet the requirements in Part 2.2.

#### **VIII.A.5. Schedules and Procedures – Control Measures (Part 5.1.5.1)**

The permit identifies specific information that must be documented in the SWPPP. ADEQ emphasizes that control measures implemented to meet the Part 2 limits must be documented in the SWPPP.

In addition to the description of the on-the-ground control measures implemented to meet the requirements in Part 2.2, the permit requires certain schedules and procedures to be documented in the SWPPP. The following items are specifically identified in the Part 5.1.5 permit language:

**Good Housekeeping** (see also Part 2.1.1.2). Include a schedule for pickup and disposal of waste materials, along with the frequency of inspections for leaks and conditions of drums, tanks and containers.

**Maintenance** (see also Part 2.1.1.3). Describe the preventive maintenance program, including how the following will be addressed: regular inspections, testing, maintenance, repair of all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases, and back-up practices in place should a runoff event occur while a control measure is off-line.

**Spill Prevention and Response Procedures** (see also Part 2.1.1.4). Describe areas and activities that typically pose a high risk for spills including loading and unloading areas, storage areas, process areas, and waste disposal activities and identify corresponding outfalls. Also, describe appropriate material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills, or in the event of a spill, enable proper and timely response. Identify which employees are to be trained on proper procedures and requirements and which are responsible for ensuring that appropriate equipment is available to respond to spills.

**Employee Training** (see also Part 2.1.1.9). Describe how personnel are to be trained and their responsibilities. The SWPPP must include a schedule for conducting this training.

### **VIII.A.6. Schedules and Procedures – Monitoring and Inspection Procedures (Part 5.1.5.2)**

The permit requires permittees to plan and document (in the SWPPP) monitoring and inspection activities in advance of when they are required to be conducted. These documentation provisions will help ensure that appropriate monitoring and inspection procedures consistent with permit requirements are implemented and improve facility compliance with the requirements. For monitoring activities, the permittee must document in the SWPPP information such as locations where samples are to be collected, person(s) or position(s) responsible for collecting those samples, the frequency of sampling and the parameters to be sampled, applicable control values at each sample location, and procedures that will be followed to gather storm event data.

For inspection activities, permittees must document procedures for performing the three types of inspections specified in the permit, namely, routine facility inspections (Part 4.1), visual assessments (Part 4.2), and comprehensive facility inspections (Part 4.3). For each of these types of inspections, the SWPPP must include information such as person(s) or position(s) performing inspections, the inspection schedule, and specific items to be covered by the inspection.

When choosing to use the substantially identical outfall exception in Part 4.2 for visual assessments or Part 6.2 for benchmark monitoring, the operator is required to describe in the SWPPP the locations of each of these outfalls, the general industrial activities conducted in the drainage area of each outfall, the control measures being implemented for each outfall, the exposed materials that are likely to be a significant contributor of pollutants to the stormwater discharge, an estimate of the runoff coefficient of the drainage area, and why the outfalls are expected to discharge substantially identical effluents.

### **VIII.A.7. Signature Requirements (Part 5.1.6)**

The permit requires the permittee to sign and date the SWPPP consistent with procedures detailed in Appendix B, Subsection 11 (standard permit condition for signatory requirements). The requirement is consistent with standard AZPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP. The permittee may appoint an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater pollution prevention plan team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

### **VIII.B. Required Modifications (Part 5.2)**

The permit requires that the SWPPP be updated whenever any of the triggering conditions for corrective action in Part 3.1 occur such that changes to the permittee's control measures are necessary to meet the requirements of Part 2.2 in the permit. The permit requires that the SWPPP be signed and dated by an authorized representative each time it is modified in response to a condition triggering corrective action. This ensures that the SWPPP document is kept up to date. Changes to the SWPPP must be made in accordance with Parts 3.2 and 3.3. The MSGP 2010 consolidates into Part 5.2 several similar requirements of the MSGP 2000.

It is important to note that failure to update the SWPPP in accordance with Part 5.2 is a recordkeeping violation, not a violation of requirements in Part 2.2. For example, if the permittee changes its maintenance procedures, but fails to update its SWPPP to reflect these changes, a recordkeeping violation will result. The permittee must revise its SWPPP to reflect the new maintenance procedures and include documentation of the corrective action (in accordance with Part 4) to return to full compliance with the permit.

### **VIII.C. SWPPP Availability (Part 5.3)**

The permit requires that a copy of the SWPPP be kept at the facility and be immediately available to representatives of ADEQ, EPA, a State, or a local stormwater agency (e.g., MS4 operator) at the time of an on-site inspection or upon request. Part 5.3 also indicates that ADEQ may otherwise request the permittee to submit copies of SWPPP documents with 14 calendar days. The purpose of this requirement is to make the SWPPP available to the public; ADEQ will provide access to the facility's SWPPP with the exception of any qualifying confidential information (as defined in A.R.S. § 49-205). Arizona's Public Records laws (A.R.S Title 39, Chap. 1, Art. 2) allow access to the SWPPP; however, if a member of the public wishes to have access to portions of the permittee's SWPPP, they must first contact ADEQ. Therefore, if any person makes a written request to the Department for access to a copy of the SWPPP, the Department shall request and the permittee shall provide within 14 calendar days, a copy for ADEQ to make available for public review.

The MSGP 2010 makes allowances for the fact that SWPPPs are generally not kept at inactive and unstaffed sites. However, the SWPPP must still be kept up to date and on-site when appropriate routine and comprehensive facility inspections are conducted. Furthermore, the SWPPP must be locally available within the state of Arizona and made available within 48 hours, if requested, when a regulatory inspection is performed by ADEQ, EPA or other Federal or local authority.

### **VIII.D. Additional Documentation Requirements (Part 5.4)**

Part 5.4 includes a list of documents, findings, activities, and information that must be kept with the permittee's SWPPP. Part 5.4 in the permit consolidates all additional documentation requirements into one section is intended to clarify those requirements for permittees. See permit language for details.

ADEQ believes the SWPPP itself should describe the site, the control measures, and the site activities to be performed (see Part 5.1), but activities undertaken to comply with the provisions of the permit are more appropriately compiled separately. Hence, the language, "kept with the SWPPP" used in various places throughout the permit is intentional. The additional documentation requirements are in Part 5.4 of the permit. "Kept with the SWPPP" is intended to clarify that these records are separate from the SWPPP documentation requirements. Instead, these records, which should be kept with the actual SWPPP document, provide documentation of the permittee's compliance with the permit. In general, this documentation requires the signature of the person performing the activity (e.g., inspection, sampling), not an authorized facility representative as specified in Appendix B, Subsection 11.

## **IX. Analytical Monitoring Program (Part 6)**

This part describes monitoring requirements that apply to each outfall discharging stormwater associated with industrial activity. The permit contains a detailed section on

monitoring procedures with follow-up actions if a discharge exceeds a numeric effluent limitation. EPA introduced, and ADEQ adopted the concept of a measurable storm event as any storm event that results in a discharge of stormwater from the facility. The requirement no longer exists that precipitation must measure 0.1 inch, or greater to qualify.

In contrast to the organization of the MSGP 2000, Monitoring (Part 6) has been separated from reporting and recordkeeping requirements (Part 7) and quarterly visual monitoring (renamed visual assessment) relocated to Part 4 (Inspections). Also, corrective actions taken in response to certain monitoring situations (e.g., violates a numeric effluent limitation guideline) were moved to a new section of the permit, Part 3 (Corrective Actions). Follow-up monitoring requirements resulting from any exceedance of an effluent limitation contained in the permit remains in the Monitoring section (Part 6.3).

### **IX.A. Analytical Monitoring Procedures (Part 6.1)**

The permit requires certain permittees to sample and analyze their stormwater discharges as a way to assess the effectiveness of control measures in meeting the effluent limitation guidelines and water quality standards. Analytical monitoring is a means by which to measure the concentration of a pollutant in a stormwater discharge. Analytical results are quantitative and therefore can be used to compare discharge results and to quantify the effectiveness of stormwater control measures, including identifying pollutants that are not being successfully controlled.

Part 6.1 of the permit identifies procedures for collecting samples and identifies where to sample, when to sample, what to sample and how to sample. Many of these requirements are similar to those in the MSGP 2000, but consolidating these requirements in one part of the permit helps to clarify the monitoring requirements.

#### **IX.A.1. Monitored Outfalls (Part 6.1.1.1).**

The monitoring requirements in the permit apply to each outfall discharging stormwater associated with industrial activity, unless the permittee qualifies for the substantially identical outfalls exemption as described in this section. The substantially identical outfall provision allows permittees with a means to reduce the number of outfalls that must be sampled and analyzed while still providing monitoring data that are indicative of discharges from each outfall. This may result in a substantial reduction of the resources required for a facility to comply with analytical monitoring requirements.

To be considered substantially identical, outfalls must have generally similar industrial activities, control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas. The MSGP 2010 clarifies that the outfalls can be substantially similar, but do not have to be identical to be eligible for the use of this option. When a permittee believes its facility has two or more outfalls that qualify as substantially identical, the permittee may monitor one of these outfalls and report that the quantitative data also apply to the other substantially identical outfalls. The permittee must also document the location of each of the outfalls and explain why the outfalls are expected to discharge substantially identical effluent, addressing each of the factors to be considered in this determination (industrial activities, control measures, exposed materials and runoff coefficients). Operators do not need advance ADEQ approval for this determination, however, the Department may subsequently determine that outfalls are not substantially identical and require sampling of additional outfalls. Part 6.1.1 clarifies that the allowance for monitoring only one of the



substantially identical outfalls is not applicable to any outfalls with the numeric effluent limitations. The permittee is required to monitor each outfall covered by a numeric effluent limitation guideline as identified in Part 6.2.2.

### **IX.A.2. Commingled Discharges (Part 6.1.1.2).**

If stormwater discharges associated with industrial activity commingle with discharges not authorized by the permit (e.g., unregulated stormwater or other permitted wastewater), then permittees must sample the stormwater discharge before it mixes with the other discharges when practicable. The intent of this provision is to ensure that monitoring results are representative of discharges covered under the permit and not indicative of other discharges from the site. In certain instances, sampling only authorized waste streams may be inappropriate or infeasible, such as when authorized discharges are commingled with other waste streams prior to on-site treatment.

### **IX.A.3. Monitoring for Allowable Non-Stormwater Discharges (Part 6.1.1.3).**

This provision clarifies that permittees are only required to monitor allowable non-stormwater discharges when they are commingled with stormwater discharges associated with industrial activity unless modified by ADEQ.

### **IX.A.4. Monitoring Periods (Part 6.1.2.1)**

Many facilities in Arizona are subject to limited rainfall conditions throughout the year (i.e., the winter wet season or the summer wet season). The climate throughout the state of Arizona is characterized as arid or semi-arid with irregular stormwater runoff. In addition, certain areas of the state experience freezing conditions that may prevent runoff from occurring for extended periods. Therefore, monitoring periods have been adapted accordingly and the section on climates with irregular stormwater runoff has been combined into the section on monitoring periods. Whereas the federal MSGP 2008 requires much of the monitoring to be conducted by calendar quarter or calendar year, ADEQ has established a winter and summer "wet season" for monitoring in the permit. ADEQ has replaced EPA's quarterly benchmark monitoring schedule with one that adapts to Arizona's summer and winter wet seasons.

The monitoring requirement begins immediately after authorization to discharge received by permittee. ADEQ recognizes the variability of rainfall in the state and, to ensure that all storm events fall into one of the two rainy seasons for the purposes of MSGP monitoring, the Department has defined monitoring seasons in the permit as follows:

Summer wet season:	June 1 – October 31
Winter wet season:	November 1 – May 31

This definition applies statewide. The frequency for MSGP stormwater sampling in the permit is at least twice each wet season (summer and winter) from each monitoring location. If four samples cannot be collected within the first year of receiving coverage, the permittee is required to continue performing benchmark monitoring until four samples are collected.

The term 'wet season' includes areas of the state where freezing conditions exist that prevent runoff from occurring for extended periods. In areas where freezing conditions exist, the required monitoring and sample collection may be distributed during seasons when precipitation runoff, either as melting snow or rain mixed with melting snow, occurs (see the following

section for further discussion). The permittee is still required to collect the required number of samples.

The MSGP 2000 required quarterly benchmark monitoring, and did not recognize arid or semi-arid climates or define monitoring periods according to wet seasons. Precipitation or runoff patterns are such that quarterly sampling is not representative of Arizona's arid and semi-arid climates. EPA introduced a new concept in the federal MSGP 2008, "climates with irregular stormwater runoff". Its purpose is to provide flexibility to parts of the country where precipitation or runoff patterns are such that quarterly sampling is not representative of when stormwater discharges are likely to occur. The MSGP 2010 uses the concept of irregular stormwater runoff by establishing 2 wet seasons. This is in recognition that precipitation in Arizona tends to be concentrated in 2 distinct seasons and, therefore, quarterly sampling is not appropriate.

#### **IX.A.5. Measurable Storm Events (Part 6.1.2.2).**

The permit defines a measurable storm event as an event that results in a discharge from the permitted facility. The MSGP 2000 required that a storm event have at least a 0.1 inch magnitude and be at least 72 hours (3 days) after the last measurable event. The MSGP 2010 retains the same requirements as the MSGP 1995 and the MSGP 2000 regarding the interval between qualified rain events, but a specific storm magnitude (i.e., 0.1 inches or greater) is no longer required. Samples must be collected from the discharge resulting from a storm event that occurs at least 72 hours (3 days) after a previous measurable storm event. The 72-hour (3-day) requirement may be waived by the permittee where the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the season when sampling is being conducted.

By defining a storm event as one that *results in discharge*, rather than prescribing a minimum magnitude as the permit did in prior versions, it affords the permittee flexibility to sample during any storm event that produces a discharge, rather than having to ensure that minimum magnitude is reached. The purpose of redefining the measurable event is to capture and characterize actual stormwater discharge.

A provision for monitoring snowmelt has been added to the permit. Many facilities covered by the MSGP 2010 are located in colder regions of the state and may have extended periods of freezing temperatures and snow events that do not meet the definition of a measurable storm event. The 72-hour (3-day) requirement does not apply to snowmelt as the actual discharge is not clearly tied to a specific snow event (i.e., may be the accumulation from multiple events). The permittee record must record the date the snowmelt sample was collected.

#### **IX.A.6. Sample Type (Part 6.1.2.3).**

The permit specifies that a minimum of one grab sample must be taken from the measurable storm event being monitored. This allows facilities to make accurate comparisons of monitoring results to the corresponding benchmark, effluent limitation or water quality standard to determine whether additional action may be needed to reduce concentrations of pollutants detected in stormwater discharges. The grab sample must be taken during the first 30 minutes of the discharge, except for snowmelt monitoring which has no 30 minute requirement. If more than one grab sample or a composite sample is collected, only those samples collected during the first 30 minutes of discharge are to be used for performing any necessary analyses. If the collection of a grab sample during the first 30 minutes is impractical, a grab sample can be taken

as soon as practicable after the first 30 minutes, but the permittee must document and keep with the SWPPP an explanation of why a grab sample during the first 30 minutes was impractical. The Department expects that the permittee will rectify such a situation if a pattern of late sampling is developing, by moving the sample location.

A sample is required during the first 30 minutes, because the highest pollutant concentrations generally occur during these first flush events. The first 30 minutes of the discharge is also the time when receiving stream flows are the lowest during wet weather events and thereby presents the greatest potential pollutant impacts to aquatic species.

Grab samples of snowmelt discharge that have been exposed to industrial activities, materials storage, or materials handling areas are to be collected from each outfall for characterization, but they do not have to be collected within 30 minutes of discharge since (1) runoff typically does not occur during a snow event (2) collecting a snowmelt sample within 30 minutes of commencement of discharge is impractical, and (3) the “first flush” effects of snowmelt are not as well defined.

#### **IX.A.7. Adverse Conditions (Part 6.1.2.4).**

When adverse weather conditions make sampling dangerous, the permittee may postpone storm event monitoring until the next runoff event. This provision applies to serious weather conditions such as: lightning, flash flooding, and high winds or other unsafe conditions that result from violent weather, such as downed power lines in the immediate area where sampling would take place. This provision should not be used as an excuse for not conducting sampling under conditions associated with more typical storm events. Adverse weather conditions do not exempt the permittee from the requirement to file a benchmark monitoring report in accordance with the corresponding reporting period. In many cases, sampling during a subsequent non-hazardous storm event may still be possible during the reporting period. Where this is not possible, operators are still required to report the inability to monitor indicating the basis for not sampling during the reporting period. This provision applies to all monitoring requirements of the permit.

#### **IX.A.8. Sampling and Analysis Plan (Part 6.1.3)**

ADEQ reorganized all of the analytical sampling and monitoring requirements in the permit under a new subsection entitled Sampling and Analysis Plan (SAP). For the required monitoring, the SWPPP must contain a SAP either as a separate section or as an appendix to the SWPPP. SAPs are not required in SWPPPs for inactive and unstaffed sites because benchmark monitoring at these sites has been waived. The contents of the SAP must include

1. Sample collection, preservation, tracking, and handling information;
2. Monitoring equipment;
3. A description of analytical methods; and
4. Records.

All SAPs must have the following general information. If this information is already available with the SWPPP, it may be referred to rather than duplicated.

- Locations where samples are collected, including any determination that two or more outfalls are substantially identical;

- The name(s) and title of the person(s) who will perform the monitoring;
- A map showing the segments or portions of the receiving water that are most likely to be impacted by the discharge of pollutant(s);
- Schedules for monitoring at the facility;
- Water quality parameters/pollutants to be sampled and the frequency of sampling for each parameter;
- An identification of the pollutant(s) of concern based on the most recent 305(b)/303(d) listing or other information available;
- A description of potential source(s) of this pollutant(s) from the project, if any;
- Any numeric control values (benchmarks, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to discharges from each outfall;
- Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data; and
- The citation and description of the sampling protocols to be used.

#### ***Sample Collection, Preservation, Tracking, and Handling Information (Part 6.1.3.1)***

The SAP shall contain written procedures for sample collection, preservation, tracking, and handling, including the following:

1. Identify water quality parameters and pollutants to be sampled including any pollutants of concern in accordance with Parts 6.2.3 and 6.2.4;
2. Identification of the required sample analyses and associated analytical methods (analytical laboratory and field analyses);
3. Sample collection procedures outlining equipment and containers, calibration procedures field note taking, preservation procedures, etc.;
4. Sample tracking procedures using chain-of-custody (COC) forms. The COC shall include, at a minimum, sampler's name(s), phone number, date and time of sample collection, sample identification, requested analyses, and project name or number. The COC forms shall be included as part of the SWPPP;
5. Transporting and shipping samples for laboratory analyses in a manner that minimizes destruction of the sample or otherwise compromises sample integrity. Samples shall be provided to the analytical laboratory in a timeframe not exceeding analytical method hold times;
6. Designating and training personnel to collect, maintain, and ship samples in accordance with the above sample protocols and good laboratory practices.

#### ***Monitoring Equipment (Part 6.1.3.2)***

Permittees are expected to calibrate, operate and maintain their monitoring equipment in accordance with manufacturer's recommendations.

### ***Analytical Methods (Part 6.1.3.3)***

Except for parameters that require analysis at the time of sample collection all analyses must be conducted by laboratories licensed by the Arizona Department of Health Services (ADHS) and must be conducted according to test procedures specified in 40 CFR 136. Parameters that require analysis at the time of sample collection include flow, dissolved oxygen, pH, temperature, and total residual chlorine, analyses for these parameters do not have to be performed using 40 CFR 136 approved methods, but methods used must be approved by ADHS or ADEQ. A field analysis of turbidity may be conducted if the permittee has sufficient capability (i.e., qualified and trained employees, properly calibrated and maintained field instruments, etc.) to properly perform the field analysis.

### ***Records (Part 6.1.3.4)***

The permittee must retain records of all stormwater monitoring information and reports as part of the SWPPP in accordance with Part 7.5. In addition to the requirements of Appendix B, Subsection 11 of the permit, these records shall include:

1. The date, exact place and time of sampling or measurements;
2. The name and title of the qualified person performing the visual and analytical monitoring and any related measurements;
3. The date(s) the analyses were performed;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The response(s) taken to minimize pollutants in discharge.

## ***IX.B. Required Monitoring (Part 6.2)***

The organization of the monitoring requirements in the MSGP 2010 differs from past permits. Monitoring requirements were consolidated into one section in order to more clearly and concisely present these monitoring requirements. Visual assessments, previously part of the monitoring requirements, is now included in the inspections section (see Part 4).

The MSGP 2010 includes benchmark, effluent limitations and impaired waters monitoring similar to that of the EPA permit. In addition, the permit requires additional monitoring at facilities that receive authorization to discharge to outstanding Arizona waters or that ADEQ requires additional monitoring (Part 6.2.4). Four types of analytical monitoring are required, one or more of which may apply to the facility's discharge:

- Benchmark monitoring (see Part 6.2.1);
- Effluent limitations monitoring (see Part 6.2.2);
- Impaired waters monitoring (see Part 6.2.3); and
- Additional monitoring as required by ADEQ (see Part 6.2.4).

The permit provides that if any of these monitoring requirements overlap, permittees are authorized to use a single sample to comply with those overlapping requirements. Monitoring frequency at a facility, or an individual outfall, depends upon whether one or more of the above four types of monitoring applies.

This Fact Sheet describes the monitoring requirements, the rationale for changes from the MSGP 2000 and ADEQ’s rationale for deviations from EPA’s 2008 permit upon which the MSGP 2010 is based. Table 4 below summarizes analytical monitoring (benchmark monitoring and effluent limitation guidelines) for each sub-sector. Refer to Part 8 of the permit for details.

Table 4. Summary of Industry Sectors/Sub-Sectors Subject to Analytical Monitoring

Industry sector	Industry sub-sector	Required parameters for analytical monitoring
A	General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Total Zinc
A	Wood Preserving (SIC 2491) (only applies to facilities that use chromium/arsenic formulations)	Total Arsenic, Total Copper
A	Wet Decking Discharges at Log Storage and Handling Areas (SIC 2411)	pH, Debris (woody material such as bark, twigs, branches, heartwood, or sapwood)
A	Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood and Structural Wood; Wood Containers; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2448, 2449, 2451, 2452, 2593, and 2499)	COD, TSS
B	Paperboard Mills (SIC 2631)	COD
C	Phosphate Subcategory of the Fertilizer Manufacturing Point Source Category (40 CFR § 418.10) (applies to precipitation runoff, that during manufacturing or processing, comes into contact with any raw material, intermediate product, finished product, by-products or waste product (SIC 2874))	Total Phosphorus (as P), Fluoride
C	Industrial Inorganic Chemicals (SIC 2812-2819)	Total Recoverable Aluminum, Total Recoverable Iron, Nitrate + Nitrite N
C	Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate + Nitrite N, Zinc
C	Agricultural Chemicals (SIC 2873-2879)	Nitrate + Nitrite N, Total Recoverable Lead, Total Recoverable Iron, Total Recoverable Zinc, Phosphorus
C	Plastics, Synthetics, and Resins (SIC 2821-2824)	Total Recoverable Zinc
D	Asphalt Paving and Roofing Materials (SIC 2951, 2952)	TSS

Industry sector	Industry sub-sector	Required parameters for analytical monitoring
D	Discharges from areas where production of asphalt paving and roofing emulsions occurs (SIC 2951, 2952)	TSS, Oil and Grease, pH
E	Clay Products Manufacturers (SIC 3245-3259, 3261-3269)	Total Recoverable Aluminum
E	Concrete and Gypsum Product Manufacturers (SIC 3271-3275)	TSS, Total Recoverable Iron
E	Cement Manufacturing Facility, Material Storage Runoff: Any discharge composed of runoff that derives from the storage of materials including raw materials including raw materials, intermediate products, finished products, and waste materials that are used in or derived from the manufacture of cement.	TSS, pH
F	Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Recoverable Aluminum, Total Recoverable Zinc
F	Iron and Steel Foundries (SIC 3321-3325)	Total Recoverable Aluminum, TSS, Total Recoverable Copper, Total Recoverable Iron, Total Recoverable Zinc
F	Non-Ferrous Rolling and Drawing (SIC 3351-3357)	Total Recoverable Copper, Total Recoverable Zinc
F	Non-Ferrous Foundries (SIC 3363-3369)	Total Recoverable Copper, Total Recoverable Zinc
K	Hazardous Waste Treatment Storage or Disposal (Industrial Activity Code "HZ") (applies only to stormwater discharges associated with industrial activity from such activities other than contaminated stormwater discharges from landfills subject to the numeric effluent limitations set forth at 40 CFR Part 445, Subpart A)	Ammonia, Total Recoverable Magnesium, COD, Total Recoverable Arsenic, Total Recoverable Cadmium, Total Cyanide, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Selenium, Total Recoverable Silver.
K	Hazardous Waste Treatment Storage or Disposal (Industrial Activity Code "HZ") (applies only to discharges subject to 40 CFR Part 445, Subpart A)	Biochemical Oxygen Demand (BOD <sub>5</sub> ), TSS, Ammonia, Alpha Terpineol, Aniline, Benzoic Acid, Naphthalene, p-Cresol, Phenol, Pyridine, Arsenic (total), Chromium (total), Zinc (total), pH
L	Landfills, Land Application Sites, and Open Dumps (Industrial Activity Code "LF")	TSS

Industry sector	Industry sub-sector	Required parameters for analytical monitoring
L	Landfills, Land Application Sites, and Open Dumps (Industrial Activity Code “LF”) except Municipal Solid Waste Landfill Areas Closed in Accordance with 40 CFR 258.60	Total Recoverable Iron
L	Landfills (Industrial Activity Code “LF”) Subject to the Requirements of 40 CFR Part 445, Subpart B	BOD <sub>5</sub> , TSS, Ammonia, Alpha Terpineol, Benzoic Acid, p-Cresol, Phenol, Zinc (total), pH
M	Automobile Salvage Yards (SIC 5015)	TSS, Total Recoverable Aluminum, Total Recoverable Iron, Total Recoverable Lead
N	Scrap Recycling (SIC 5093)	Total Recoverable Copper, Total Recoverable Aluminum, Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Zinc, TSS, COD.
O	Steam Electric Generating Facilities (Industrial Activity Code “SE”) (only applies to facilities that use or store coal)	Total Recoverable Iron
Q	Water Transportation Facilities (SIC 4449, 4489, 4493, 4499)	Total Recoverable Aluminum, Total Recoverable Iron, Total Recoverable Lead, Total Recoverable Zinc
S	Facilities at airports that use more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons or more of urea on an average annual basis: monitor ONLY those outfalls from the airport facility that collect runoff from areas where deicing/anti-icing activities occur (SIC 4512-4581)	BOD <sub>5</sub> , COD, Ammonia, pH
U	Grain Mill Products (SIC 2041-2048)	TSS
U	Fats and Oils Products (SIC 2074-2079)	BOD <sub>5</sub> , COD, Nitrate + Nitrite N, TSS
Y	Tires and Inner Tubes; Rubber Footwear; Gaskets, Packing, and Sealing Devices; Rubber Hose and Belting; and Fabricated Rubber Products, Not Elsewhere Classified (SIC 3011-3069 (Rubber Products))	Total Recoverable Zinc
AA	Fabricated Metal Products Except Coating (SIC 3411-3471, 3482-3499, 3911-3915)	Total Recoverable Aluminum, Total Recoverable Iron, Total Recoverable Zinc Nitrate + Nitrite N
AA	Fabricated Metal Coating and Engraving (SIC 3479)	Total Recoverable Zinc, Nitrate + Nitrite N.



### **IX.B.1. Benchmark Monitoring (Part 6.2.1).**

Benchmark monitoring is required in the MSGP 2010. A benchmark is a numeric monitoring requirement where discharges must be sampled to determine whether they meet a certain level of pollutant(s) in the discharge. Benchmark monitoring requirements described in Part 6.2.1 of the permit require permittees to collect stormwater samples for laboratory chemical analyses. Benchmarks are not effluent limitations, and exceedances of benchmarks are not permit violations. Rather, exceedance of a benchmark is an indicator to the operator that there may be a problem with his/her control measures, or the discharge may be adversely affecting water quality.

If a benchmark is exceeded, generally, the enforceable requirement is for the discharger to contact the permitting authority, examine its BMPs, and implement additional controls, if necessary. A benchmark requires similar types of site planning, employee education, firm resources, monitoring and sampling, design, installation and maintenance of [control measures], and application of other passive treatment technologies as are necessary to meet a numeric limitation.

The basic framework for benchmark monitoring established in the 1995 and 2000 permits has not changed. Except as discussed below, ADEQ adopted EPA's changes to the benchmark monitoring requirements, such as downward adjustments to many of the benchmarks to enhance consistency with published water quality criteria. Also, to provide additional protection for sensitive aquatic species, new provisions were adopted for adjusting benchmarks based on hardness for certain metals.

During development of MSGP 2000, EPA received substantial public comment on the value of benchmark monitoring. EPA responded to those comments, in part, by indicating that "considering the small number of samples required per monitoring year (four), and the vagaries of stormwater discharges, it may be difficult to determine or confirm the existence of a discharge problem ...." EPA acknowledged that "when viewed as an indicator, analytic levels considerably above benchmark values can serve as a flag to the operator" that his/her control measures "need to be reevaluated and that pollutant loads may need to be reduced." Alternatively, the Agency indicated that analytic levels below or near benchmarks can confirm to the operator that his/her control measures are doing their intended job. EPA also stated that "there is presently no alternative that provides stakeholders with an equivalent indicator of program effectiveness." (see 65 Fed. Reg. 64796, October 20, 2000). This response, from the MSGP 2000, continues to represent EPA's and ADEQ's thinking regarding the appropriate use of analytical monitoring. The permit strengthens the benchmark monitoring requirements by requiring permittees to document any changes to their control measures that are triggered by benchmark exceedances and to make modifications where these measures are inadequate.

For their 2008 permit EPA prepared an analysis of benchmark data collected under the 1995 and 2000 MSGPs, to evaluate the effectiveness of management practices on an industry sector basis and to evaluate the need for changes in the monitoring protocols. This analysis is available memorandum entitled "Review of Discharge Monitoring Report Data from the 2000 NPDES Industrial Stormwater Permit Program" on ADEQ's at website <http://www.azdeq.gov/environ/water/permits/stormwater.html>. The report indicated that available analytic monitoring data showed exceedances of benchmark values for many facilities.

To further EPA's understanding of the links between stormwater pollutant discharges and ambient water quality, and to assess the state of the science of stormwater management, the

Agency commissioned a study with the National Research Council (NRC) beginning in July 2006. The NRC report was completed in September 2009 and is available for purchase from EPA. A pre-publication copy is available for download on ADEQ's MSGP web site at <http://www.azdeq.gov/envirom/water/permits/stormwater.html>. The study considered municipal, construction, and industrial stormwater, with special attention paid to those eight to ten industrial sectors felt to be of highest priority in terms of pollutant discharges.

#### **IX.B.1.a. Changes to Applicability of Benchmark Monitoring Requirements (Part 6.2.1.1)**

As discussed above, benchmark monitoring continues to be a requirement of the MSGP 2010; however, this framework has been further developed to enhance its usefulness in identifying potential water quality concerns and opportunities to improve the effectiveness of the measures taken to meet the effluent limits.

EPA's analysis provided the basis for the following decisions regarding benchmark monitoring requirements in EPA's MSGP 2008:

- Retaining TSS benchmark at 100 mg/L
- Application of benchmarks and numeric effluent limitations for the same pollutant
- Lowering ammonia benchmark
- Adopting hardness-dependent benchmarks for certain metals
- Updating certain other benchmarks, and
- Allowing for consideration of natural background pollutant levels.

ADEQ further modified benchmark monitoring requirements in ADEQ's MSGP 2010 by reserving benchmark monitoring for Total Suspended Solids (TSS) for Sectors D, E and L. These sectors are required to monitor and report TSS values on Discharge Monitoring Reports forms (DMRs), but the benchmark value has been reserved. The benchmark value for Nitrate plus Nitrite Nitrogen for all affected sectors in Part 8 has also been reserved, but monitoring is still required and the results must be reported on DMRs. Note that the absence of a numeric benchmark does not eliminate the need to implement control measures to minimize the discharge of these pollutants.

EPA's discussion of each of the above decisions regarding benchmark monitoring follows.

##### **IX.B.1.a.i. Retaining TSS Benchmark at 100 mg/L.**

Proper selection, design, installation, and implementation of control measures can reduce TSS concentrations in many cases. For example, good housekeeping practices, such as sweeping or diverting stormwater flows, can reduce TSS concentrations in stormwater. In other cases, TSS can be reduced by control measures such as bioretention, settling mechanisms, and other types of treatment devices. A Tetra Tech, Inc. study (2006<sup>1</sup>), commissioned by EPA, found that most facilities have been able to meet the 100 mg/L benchmark in MSGP 2000. In many cases, reported TSS concentrations in industrial stormwater runoff did not exceed the MSGP 2000 benchmark for TSS of 100 mg/L. In an analysis of discharge monitoring report (DMR) data

---

<sup>1</sup> Tetra Tech, Inc. 2006. Review of Discharge Monitoring Report Data From the 2000 NPDES Industrial Stormwater Permit Program. Technical Memorandum to Jack Faulk, U.S. Environmental Protection Agency. Tetra Tech, Inc., Clemson, SC, and Fairfax, VA.

from more than 775 facilities covered nationwide by the MSGP 2000, approximately 63 percent of the TSS samples met the benchmark. As stated above, ADEQ also retained the TSS benchmark value of 100 mg/L for all sectors except D, E, and L. A review of TSS levels in Arizona streams indicate levels of 100 would be difficult to obtain for larger sites with areas of disturbed land.

EPA's 2008 permit retained the TSS benchmark at the level of 100 mg/L consistent with previous permits. The MSGP 2010 generally retains this value only for the non-mining sectors, with the exception of Sectors D, E and L. EPA's decision to retain the TSS benchmark for all affected sectors is based on a number of factors, including recent scientific literature supporting this benchmark concentration and EPA's best professional judgment. In ADEQ's opinion, reduction in TSS loading improves aquatic habitat and water.

**IX.B.1.a.ii. Application of Benchmarks and Numeric Effluent Limitations for the Same Pollutant.**

Several sectors have both benchmarks and effluent limitations guidelines that apply to the same pollutant. The MSGP 2010 is modified from the MSGP 2000 to provide a clearer delineation of these two sets of requirements and their relationship to each other. Specifically, five sectors in the permit have both benchmarks and effluent limitations guidelines for a specific pollutant: TSS in Sectors D, E, L, and O and ammonia and arsenic in Sector K. Benchmarks apply to the entire stormwater discharge associated with industrial activity from the facility whereas the effluent limitation guidelines only apply to the specific activity identified by the national effluent limitation guideline. For example, in Sector D, effluent limitations guidelines apply only to stormwater runoff from asphalt emulsion facilities while the benchmarks apply to all stormwater discharge associated with industrial activities at the site. Benchmarks and effluent limitations guidelines are separated into different tables to clarify the difference between the applicability of these two sets of requirements.

**IX.B.1.a.iii. Lowering Ammonia Benchmark.**

The ammonia benchmark has been lowered from 19 mg/L to 2.14 mg/L based on comments received from the US Fish and Wildlife Service and the US National Marine Fisheries Service (the Services). These comments were regarding the potential impacts of the MSGP on federally-listed endangered and threatened species and their critical habitat. The Services commented that the proposed 19 mg/L benchmark would not adequately protect certain endangered species. EPA included the benchmark of 19 mg/L in both the 1995 and 2000 permits based on the assumption that the majority of waters would have a pH of about 7.5 or less. Under most existing water quality standards, the pH is expected to be between 6.0 and 9.0. Streams and reservoirs that have high levels of photosynthesis will likely have higher pH. In calculating a revised benchmark, EPA assumed a maximum pH of 8.5 in the receiving stream, which yielded an acute freshwater criterion for ammonia of 2.14 mg/L. This change affects two sectors: Sector K (Hazardous Waste Treatment Storage or Disposal Facilities) and Sector S (Air Transportation Facilities).

Based on past monitoring results the majority of facilities will not exceed this revised benchmark. Ammonia discharge data from the MSGP 2000 DMR data for Sector K facilities revealed that only 4 in 47 data points exceeded the 2.14 mg/L. However, some Sector S facilities may have to implement additional measures to further minimize ammonia discharges, in response to (or to avoid) exceedances of this new benchmark value.

The MSGP 2000 requires Sector S facilities to monitor for ammonia if they use 100 tons or more of urea on an average annual basis. Urea is used by some airport facilities as a runway deicing agent. Under the MSGP 2000, EPA received ammonia data from only 12 of the more than 400 facilities covered under Sector S. As such, lowering this benchmark will not affect the majority of facilities covered under Sector S (i.e., those situated in warm weather environments and those using chemicals other than urea as a deicing/anti-icing agent). For the 12 facilities submitting ammonia data for Sector S, 47 of the 114 samples exceeded 2.14 mg/L.

Sector S facilities located in Arizona that have high ammonia concentrations in their discharge may choose to alter control measures such as using vacuum trucks, increasing manual snow removal, or transporting the discharge to Publicly Owned Treatment Works (POTWs) after proper approval (see U.S. EPA Office of Water EPA 816-F-02-018, August 2002 “Managing Aircraft and Airfield Deicing Operations to Prevent Contamination of Drinking Water.” Another option may be to switch to an alternative anti-icing/de-icing chemical. Airports are required to obtain stormwater discharge permits under the AZPDES program and ensure that wastes from deicing operations are properly collected and treated. EPA issued a draft of the proposed rule on airport deicing effluent guidelines on August 28, 2009; the comment period closed on February 26, 2010. Implementation date for the Final Rule is unknown at this time. Information about the proposed technology-based effluent standards can be found at <http://epa.gov/guide/airport/>.

#### **IX.B.1.a.iv. Requiring Hardness Data for Certain Metals Benchmarks.**

The benchmark values, based on water quality criteria of some metals, are dependent on water hardness. The requirement to obtain the receiving water hardness value was included in EPA’s MSGP 2008 based on comments from the Services. During consultation prior to the issuance of the MSGP 2008 permit, the Services expressed concern that creating a benchmark value based on water quality standards with a hardness value of 100 mg/L would not be adequately protective of endangered species in receiving waters where the hardness is below 100 mg/L. Since many waters have hardness values of 100 mg/L or higher, EPA opted not to lower the hardness value for all dischargers as this would create unnecessarily stringent benchmarks for some dischargers. Rather, and for simplicity, EPA tabulated applicable hardness-dependent benchmarks using 25 mg/L hardness increments. For each hardness range the benchmark level is set at the upper end of that range (e.g., for the hardness range from 50 mg/L to 75 mg/L, the benchmark value is established using the hardness at 75 mg/L). In the MSGP 2010 permittees are required to determine the hardness of their receiving water. Once the site-specific hardness data have been collected, benchmark values are calculated using a conversion table based on 25 mg/L incremental hardness ranges up to 400 mg/L. This change from EPA’s highest level of 250 mg/L, responds to stakeholders’ concerns that they would be required to meet an artificially lower standard in their discharges owing to the fact that hardness in Arizona’s surface waters often exceed 250 mg/L. The additional values are drawn from either the acute warm or ephemeral water quality standards in Tables 2 through 26 in 18 A.A.C. 11, Art. 1, Appendix A, based on the applicable receiving water.

This approach addresses the Services’ concerns with minimal additional burden on permittees. Gathering data for hardness in the receiving stream provides an appropriate way to obtain representative benchmark values that are representative of local conditions and that provide a more meaningful assessment of potential impacts on endangered species.

### **IX.B.1.a.v. Updating Benchmark Parameters for Certain Sectors**

As part of the permit reissuance process, EPA evaluated existing benchmark data and benchmark parameters for each sector and subsector in the MSGP 2000 to assess the appropriateness of retaining these existing requirements. See above-referenced Tetra Tech, Inc. study. This analysis evaluated the effectiveness of existing controls on these discharges. The Agency also used additional data on which to assess whether additional benchmark monitoring requirements were necessary for any of the sectors or subsectors. EPA was prepared to drop any benchmark monitoring requirement where data indicated that a pollutant was not present in the discharge, or occurred consistently at such low levels that monitoring would provide no indicator value to the operator with respect to discharge quality. No parameters were dropped as a result of the evaluation.

### **IX.B.1.a.vi. Updating Other Benchmark Values**

EPA revised 10 benchmark values (ammonia, arsenic, cadmium, copper, cyanide, mercury, nickel, selenium, and silver) (e.g., switching from a method detection limit-based (MDL-based) to an ambient water quality criterion-based value, or updated to reflect a revised water quality criterion). In some cases, these revisions represent significant reductions in the benchmarks. The values for four additional benchmarks (antimony, lead, magnesium, and zinc) are slightly revised by rounding the values to two significant figures.

Based on DMR data reported under previous permits, most facilities with effective control measures can meet these targets. Monitoring data suggest that the proposed benchmarks are achievable in general for the industries to which they will apply, although some facilities may need to make improvements to their control measures to meet these benchmarks. Facilities may also demonstrate that exceedances are due to natural background, or that discharges cannot be further minimized and document that this is the case.

In the MSGP 1995 and 2000, where an applicable water quality criterion was below the minimum level (ML) of quantification for the most sensitive available analytic method, EPA instead used a value equal to 3.18 times the MDL for that pollutant in lieu of the water quality criterion. (For a full discussion of EPA's initial approach for the derivation of the benchmarks see the Fact Sheet for the 1995 MSGP (60 Fed. Reg. 50825, September 29, 1995).

The process used in selecting the benchmark values for EPA's permit is as follows: Step 1: Use the promulgated acute criterion value; Step 2: If no EPA acute criterion exists, use the chronic criterion; Step 3: If neither acute nor chronic criteria exist, use data from runoff studies or technology-based standards to establish a benchmark.

For most parameters where the basis for the benchmark value was changed from the MDL method to the water quality basis described above, the freshwater acute water quality criteria were selected. 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, acute criteria are generally more appropriate than chronic criteria. There are a few exceptions to this general approach, as will be discussed later in this Fact Sheet.

Table 2 presents a comparison of the MSGP 2000 to the MSGP 2010's benchmark values, and the source of those values. Changes from the MSGP 2000 benchmark values are shaded in the table.

As discussed above, in some cases (i.e., arsenic and selenium) the chronic freshwater criteria is used for setting benchmarks. The arsenic acute criterion, 0.34 mg/L, is more than two times the MSGP 2000 benchmark value. In general, a discharge requirement can not be weakened unless good scientific evidence exists that a pollutant is less toxic than previously believed. This is not the case with arsenic. Additionally, the revised benchmark for arsenic of 0.15 mg/L is not significantly different from the previous benchmark of 0.17 mg/L that had been based on 3.18 times the MDL. Currently there is not an acute freshwater criterion for selenium; although draft criteria are under consideration. Hence, the chronic criterion has been selected. This benchmark may be revised in future permits.

**Table 2. Comparison of MSGP 2000 and final MSGP 2010 Benchmark Values.**

Comparing Benchmark Monitoring Pollutants Sources from the 2000 and final MSGP					
Pollutant	2000 MSGP Benchmark	2000 MSGP Source	Final MSGP Benchmark	Final MSGP Source	Different
Ammonia *	19 mg/L	12	2.14 mg/L	12	Yes
Biochemical Oxygen Demand (5 day)	30 mg/L	4	30 mg/L	4	No
Chemical Oxygen Demand	120 mg/L	5	120 mg/L	5	No
Total Suspended Solids **	100 mg/L	7	100 mg/L	7	No
Nitrate + Nitrite Nitrogen	0.68 mg/L	7	Reserved		Yes
Total Phosphorus	2.0 mg/L	6	2.0 mg/L	6	No
pH	6.0 – 9.0 s.u.	4	6.0 – 9.0 s.u.	4	No
Aluminum (T) (pH 6.5 - 9)	0.75 mg/L	9	0.75 mg/L	1	No
Antimony (T)	0.636 mg/L	8	0.64 mg/L	11	No
Arsenic (T)	0.16854 mg/L	8	0.15 mg/L	3	Yes
Beryllium (T)	0.13 mg/L	2	0.13 mg/L	2	No
Cadmium (T) <sup>†</sup>	0.0159 mg/L	8	0.0021 mg/L	1	Yes
Copper (T) <sup>*†</sup>	0.0636 mg/L	8	0.014 mg/L	1	Yes
Cyanide	0.0636 mg/L	8	0.022 mg/L	1	Yes
Iron (T)	1.0 mg/L	10	1.0 mg/L	3	No
Lead (T) <sup>*†</sup>	0.0816 mg/L	9	0.082 mg/L	3	No
Magnesium (T)	0.0636 mg/L	8	0.064 mg/L	8	No
Mercury (T)	0.0024 mg/L	9	0.0014 mg/L	1	Yes ^
Nickel (T) <sup>†</sup>	1.417 mg/L	9	0.47 mg/L	1	Yes ^
Selenium (T) <sup>*</sup>	0.2385 mg/L	8	0.005 mg/L	3	Yes
Silver (T) <sup>*†</sup>	0.0318 mg/L	8	0.0038 mg/L	1	Yes
Zinc (T) <sup>†</sup>	0.117 mg/L	9	0.12 mg/L	1	Yes ^

(T) Total recoverable

\* New criteria are currently under development, but values are based on existing criteria.

\*\* TSS values changed to “Reserved” for Sectors D1, E2, and L1 (sectors associated with earth moving activities that disturb large areas)

† These pollutants are dependent on water hardness. The benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes water samples for hardness, the permittee must use the hardness ranges provided in Table 1 or Table 2 in Appendix D and the appropriate tables in Part 8 of the Non-mining MSGP 2010 to determine the applicable benchmark value for that facility.

^ The values for these pollutants do not have a new basis. They are still based on the water quality criteria, but the “National Recommended Water Quality Criteria” was updated in 2002.

Sources:

1. “National Recommended Water Quality Criteria.” Acute Aquatic Life Freshwater (EPA-822-F-04-010 2006-CMC)
2. “EPA Recommended Ambient Water Quality Criteria for Beryllium.” LOEL Acute Freshwater (EPA-440-5-80-024)

October 1980)

3. "National Recommended Water Quality Criteria." Chronic Aquatic Life Freshwater (EPA-822-F-04-010 2006-CCC)
4. Secondary Treatment Regulations (40 CFR 133)
5. Factor of 4 times BOD5 (5 day biochemical oxygen demand) concentration - North Carolina Benchmark
6. North Carolina stormwater Benchmark derived from NC Water Quality Standards
7. National Urban Runoff Program (NURP) median concentration
8. Minimum Level (ML) based upon highest Method Detection Limit (MDL) times a factor of 3.18
9. "National Ambient Water Quality Criteria." Acute Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #1)
10. "National Ambient Water Quality Criteria." Chronic Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #3)
11. "National Ambient Water Quality Criteria." Human Health For the Consumption of Organism Only (EPA-822-F-01-010 2006)
12. "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses." USEPA Office of Water (PB85-227049 January 1985).

### **IX.B.1.a.viii. Data Evaluation – Addressing Natural Background Pollutant Levels (Part 6.2.1.3).**

The permit includes an option for permittees to justify benchmark exceedances based on local natural background concentrations. This option was included as a result of comments on EPA's MSGP 2008 which noted that natural background levels are the specific cause of their benchmark exceedances. For example, high natural background levels of iron in soils or groundwater could cause exceedances of a benchmark value. Please note that this provision for establishing natural background levels is not available for demonstrating compliance with effluent limitation monitoring (Part 6.2.2) or impaired water monitoring (Part 6.2.3). Under the natural background provision a permittee may discontinue benchmark monitoring after the first year of permit coverage due to exceedances attributed solely to natural background levels.

Part 6.2.1.3 of the permit allows for an exception from evaluation of control measures and further benchmark monitoring when natural background levels are solely responsible for the exceedance of a benchmark value. This can be determined if (1) natural background pollutant concentrations are greater than the corresponding benchmark value, and (2) there is *no* net facility contribution of the pollutant (i.e., average concentration detected in runoff from all facility outfalls required to be monitored under the MSGP for 4 separate events minus the average natural concentration of the parameter for 4 separate events does not exceed zero).

This natural background exception could apply to parameters such as metals derived from natural mineral deposits and nutrients attributable to background soil, vegetation, or wildlife sources. If background concentrations are not responsible for the benchmark exceedance, the facility will need to review its control measures and take further action where necessary as required in Part 2.1 of the permit. Facilities must use the same sample collection, preservation, and analysis methods for natural background monitoring as required for benchmark monitoring.

If a permittee experienced average benchmark exceedances for one or more pollutants during coverage under the MSGP 2000 or suspects that the facility might have benchmark exceedances under the permit caused entirely by natural background, he/she can begin monitoring the natural background pollutant concentrations from a non-human impacted reference site concurrently with required benchmark monitoring.

After monitoring for 4 rounds and adequately determining that exceedances are the result of pollutants present in the natural background, permittees must notify ADEQ of these findings to claim the natural background exception. The exception allows the permittee to avoid the

requirement for further evaluation of the effectiveness of control measures and to discontinue further benchmark sampling after the first year of permit coverage. To do this, the permittee must document the basis for concluding that benchmark exceedances are attributable solely to natural background pollutant levels. This explanation must include any data previously collected by the facility staff or others that describe the levels of natural background pollutants in the facility's receiving waters. The permittee must notify ADEQ when submitting its monitoring data that it is claiming the exception for natural background pollutant levels and provide a summary of the natural background conditions that justify the exception. The full justification for this exception must be kept on-site with the facility's additional documentation (see Part 5.4), and made available to ADEQ on request.

The following information, describing the rationale for claiming the natural background exception, must be documented and kept onsite with the facility's SWPPP (following one of the procedures noted in A.A.C. R18-11-115(C)):

- Map showing the reference site location in relation to facility along with available land cover information
- Reference site and test site elevation
- Available geology and soil information for reference and test sites
- Photographs showing site vegetation
- Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures
- Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site
- The background concentration of a pollutant in runoff from a non-human impacted reference site in the same watershed should be determined by evaluation of scientifically credible (see A.A.C R18-11-115(C)). When no data are available, and there are no known sources of the pollutant, the background concentration should be assumed to be zero.

In cases where historic monitoring data from a site are used for generating a natural background value, and the site is no longer accessible or able to meet reference site acceptability criteria, then there must be documentation (e.g., historic land use maps) that the site did meet reference site criteria (indicating absence of human activity) during the time data collection occurred.

ADEQ may review a permittee's determination that a benchmark exceedance is based solely on natural background concentrations, and disallow the exception if it finds the documentation inadequate.

#### **IX.B.1.b. Benchmark Monitoring Schedule (Part 6.2.1.2)**

ADEQ replaced EPA's quarterly benchmark monitoring schedule with one that adapts to Arizona's climate (summer and winter wet seasons – see Section IX.A.4 of this Fact Sheet). The benchmark monitoring requirement begins immediately after authorization to discharge received by permittee. In contrast, the MSGP 2000 required monitoring during years 2 and 4 of the permit regardless of when permittees actually obtained authorization to discharge under the permit. A benchmark monitoring exception was provided to facilities whose average concentrations for discharges for all four quarters of the year 2 monitoring were below their corresponding benchmark values.



EPA's evaluation of discharge monitoring data collected under the MSGP 2000 indicates that it is most appropriate to commence monitoring soon after obtaining authorization to discharge, rather than in the second year of permit coverage, to allow facilities to assess the effectiveness of control measures and identify potential problems sooner (see memorandum located in the docket for EPA's MSGP 2008 permit entitled "Review of Discharge Monitoring Report Data for the MSGP 2000" for more details).

In the MSGP 2010, following the first year of monitoring, if the average of the monitoring values for any parameter does not exceed the benchmark, the permittee has fulfilled the benchmark monitoring requirements for that parameter for the duration of the permit term.

However, if the average of the 4 rounds (or in the case of discharge to ephemeral waters, two samples, in accordance with Part 6.2.1.5) of monitoring values exceeds any benchmark for a parameter, the permittee must evaluate his/her control measures to determine if modifications are necessary to meet the effluent limitations in the permit. If so, the permittee must either:

1. Make the necessary modifications and monitor the pollutant for the additional rounds as required by the permit. Sampling must continue until the discharger has completed the required rounds of monitoring of that pollutant until the average does not exceed the benchmark; or
2. Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the permit's technology-based effluent limits, or necessary to meet the permit's water quality-based effluent limits. If the permittee makes this determination, the accompanying rationale must be included in the post-SWPPP documentation. No further corrective action is required, but the permittee must monitor annually for the pollutant for the remainder of the permit term and notify ADEQ in the first monitoring report of the permittee's determination.

If the permittee determines after two wet seasons of monitoring that a benchmark was exceeded solely as a result of natural background levels, the permittee may document this determination and discontinue further benchmark monitoring.

For averaging purposes, any parameter determined to be less than the method detection limit (MDL) can be assumed to be zero. For sample results that fall between the MDL and the quantitation level (i.e., detected but not quantifiable with certainty), use a value halfway between zero and the quantitation level. In any case, reports provided to ADEQ must provide either the detected value, notice that the concentration is below the method detection level, or notice that the pollutant is present but not quantifiable (and the quantitation level).

#### **IX.B.1.c. Exception for Inactive and Unstaffed Sites (Part 6.2.1.4)**

Part 6.2.1.3 of the permit allows for an exception from benchmark monitoring for facilities that are both inactive and unstaffed, when the facility no longer has industrial activities or materials exposed to stormwater. As an alternative, these facilities could submit a No Exposure Certification terminating permit coverage. However, facilities should have the flexibility to keep permit coverage active, if they plan to recommence industrial activity in the future. To qualify for this exception, permittees must maintain a signed certification along with additional documentation (Part 5.4 of the permit) that indicates that the site is inactive and unstaffed, and that there are no industrial activities or materials exposed to stormwater. Permittees are not required to obtain advance approval for this exception.

The permit states that if circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and the permittee must immediately begin complying with the applicable benchmark monitoring requirements under Part 6.2 as if he/she was in the first year of permit coverage, and notify ADEQ of the change in the first benchmark monitoring report. In the same way, if the permittee is not qualified for this exception at the time he/she is authorized under the permit, but during the permit term the facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then the permittee must notify ADEQ of this change in its next benchmark monitoring report, and may discontinue benchmark monitoring once he/she has done so, and prepared and signed the statement described above concerning the facility's qualification for this special exception.

In theory, a facility with no industrial activity and no exposed materials will not be contributing pollutants to stormwater discharges. The MSGP 2000 provided a benchmark monitoring exception for inactive and unstaffed sites, but it did not require "no exposure" of industrial materials. A discharge of pollutants does not cease when industrial materials remain exposed to stormwater, but, maintaining permit coverage for inactive and unstaffed sites is expected to be a rare event in most sectors, therefore, monitoring of these sites will not be unduly burdensome if activities and materials remain exposed to stormwater. Elimination of exposure is a reasonable prerequisite for this monitoring exception for most sectors. ADEQ concurs with EPA's rationale and has included this provision in the MSGP 2010.

Part 6.2.1.4 requires permittees to notify the Department when they become qualified for the exception and when they are no longer qualified.

#### **IX.B.1.d. Benchmark Monitoring Exceptions for Discharges to Ephemeral Waters (Part 6.2.1.5)**

The MSGP 2010 contains tailored monitoring requirements for permittees with discharges to ephemeral waters provided there is no potential for the discharge to degrade a downstream perennial surface water. The benchmark requirement to monitor total suspended solids (TSS) and turbidity is waived for these facilities and the required monitoring is reduced for the other Part 8 parameters from twice per wet season to once per wet season.

Once a minimum of two samples (rather than four for regular benchmark monitoring) have been collected, the permittee will evaluate the data as is required under the benchmark monitoring and follow the established procedures based on whether an average of the two monitored values exceeds or does not exceed the benchmark. If the average of the samples does not exceed the benchmark for the parameter of concern, the monitoring requirement for that parameter is fulfilled for the permit term. If, however, the average of the two values exceeds the benchmark, the permittee must initiate corrective actions and continue monitoring until the results confirm discharges do not exceed the benchmark. Nothing in this section limits the amount of samples the facility may take prior to averaging once the two sample minimum is met.

#### **IX.B.2. Effluent Limitations Monitoring (Parts 6.2.2.1 and 6.2.2.2).**

Numeric effluent limitations have been included in previous versions of the MSGP, based on national effluent limitation guidelines for certain industry-specific discharges (see Part 6.2.2). Consistent with minimum monitoring requirements for AZPDES permit limits established at 40 CFR 122.44(i), monitoring for these parameters must be conducted at least once each year for the duration of permit coverage. A facility's effluent limitations are specified in the Part 8

requirements that correspond to that facility's sector. Monitoring for all parameters must be conducted according to the procedures in Part 6.1 of the permit unless otherwise noted.

The permit also clarifies the requirement for corrective action whenever there is an exceedance of a numeric effluent limitation. EPA also clarifies that, in contrast to benchmarks, an exceedance of an effluent limitation constitutes a violation of the permit. Failure to conduct required corrective action and follow-up monitoring as required in Part 6.3 of the permit is an additional violation.

The permit includes one notable change regarding effluent limitations. In the MSGP 2000, EPA established a numeric effluent limitation for all coal pile runoff irrespective of the industrial activities conducted at that site. EPA used the effluent limitation guidelines applicable to the steam electric power generation industry, as detailed in 40 CFR Part 423, as the basis for these limits. Commenters to EPA's MSGP 2008 questioned how this effluent limit correlates with the applicability of these coal mining effluent limitation guidelines to other sectors, given that they were based on an assessment of discharges, control options, and economic achievability at steam electric generating facilities only. EPA agreed with these commenters and limited the applicability of this effluent limit in the permit to Sector O (steam electric generating facilities). EPA noted in their MSGP 2008 Fact Sheet that facilities that generate electric power from steam for sale to other customers would be covered by this effluent guideline even if this was not their primary business. Facilities that generate electricity for internal use only are not covered because their activities do not fall within the definition of Sector O. Hence, effluent limitations for coal pile runoff became part of Sector O (Steam Electric Generating Facilities) in the MSGP 2010 and only apply to facilities that engage in electric power generation from steam for sale to outside customers.

Additionally, facilities that use coal simply for steam generation are also not subject to these numeric effluent limitations. Applicable control measures for these facilities must be selected, designed, installed, and implemented consistent with the stormwater control requirements established in Part 2 of the permit.

Part 6.2.2.2 clarifies that permittees subject to effluent limitation guidelines are required to monitor each outfall discharging runoff, and that the flexibility afforded for benchmark monitoring for substantially identical outfalls does not apply to effluent limitation guidelines monitoring.

### **IX.B.3. Monitoring Discharges to Impaired Waters (Part 6.2.3).**

Part 6.2.3 of the permit clarifies provisions for discharges to water quality impaired receiving waters.

As noted earlier, ADEQ's permit requires the permittee to develop and implement a monitoring program (Part 6.2.3) for authorized discharges to impaired waters.

The MSGP 2010 requires two samples per wet season at each outfall discharging to the impaired water rather than EPA's one time per year. If the results of the first year sampling determine the pollutant for which the water is impaired is not present, is not expected to be present or can be demonstrated to be due solely to natural background, the monitoring requirement is satisfied for the permit term (Part 6.2.3.2). If the pollutant is found in the first year of sampling, the permittee shall continue to monitor in accordance with the monitoring program developed under Part 6.2.4.

The following is a step-by-step discussion on how permittees should determine appropriate monitoring requirements.

### **IX.B.3.a. Determine Whether the Receiving Waterbody Is Impaired (Part 6.2.3.1)**

Each operator is required to indicate in his/her NOI whether the facility's discharge is to an impaired water, and, if so, what are the pollutants identified as causing the impairment. Following the submittal of the NOI, ADEQ will assess each NOI to determine what, if any, monitoring requirements apply under Part 6.2.3. Based on this examination, ADEQ will notify each permittee of their impaired waters monitoring requirements.

The first step for the operator is to determine if his/her facility discharges to an impaired water. Sources can be used to determine whether the waterbody (e.g., ditch, creek, intermittent stream, lake) into which a facility's stormwater is discharged directly is impaired. ADEQ provides a web site (<http://gisweb.azdeq.gov/arcgis/emaps/?topic=impaired>) to help operators determine this. For the purposes of the permit, a permittee discharges to an impaired water if the discharge is directly to the impaired water (See Parts 1.1.4.5 and 1.1.4.6). If the discharge is to an impaired water, the monitoring requirements under Part 6.2.3 are triggered.

When developing TMDLs, ADEQ evaluates contributions from upstream segments and contributing waterbodies. As such, in some instances, upstream sources may be identified as a contributor to an impairment. Where ADEQ has reason to believe that a permitted facility has the potential to cause or contribute to an impairment in a downstream water, notwithstanding the permittee's indication in his/her NOI that the facility does not discharge to an impaired water, the permittee may be required to perform additional monitoring and/or adopt additional control measures to address the potential contribution to the impairment. In these instances, the permittee will receive written notification of the additional obligations, including any monitoring requirements.

### **IX.B.3.b. Determine the Pollutant(s) of Concern**

After determining that a discharge is to an impaired water, the permittee must identify the pollutant(s) identified as causing the impairment, and provide a list of such pollutants in the NOI. This information is accessible from ADEQ's 303(d) list located at <http://www.azdeq.gov/environ/water/assessment/assess.html> (click on link to "2006/2008 303(d) Impaired Waters List" or current 303(d) Impaired Waters List link. Permittees are required to monitor for all of these pollutants, with a few noteworthy exceptions as discussed below. For impaired waters without a TMDL, monitoring is required only for those parameters for which a standard analytical test method in 40 CFR Part 136 exists. If a TMDL has been approved that applies to the discharge, ADEQ will determine whether there are any other monitoring specifications that are contained in the TMDL and that apply to the facility, and notify the permittee of any additional requirements. If the pollutant for which the waterbody is impaired is suspended solids, turbidity, or sediment/sedimentation, total suspended solids (TSS) must be monitored. If the pollutant of concern is an indicator or surrogate pollutant, then the pollutant indicator (e.g., dissolved oxygen) must be monitored. No monitoring is required when a waterbody's biological communities are impaired but no pollutant is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modification, impaired hydrology, or temperature.

### IX.B.3.c. Impaired Waters Monitoring Schedule (Part 6.2.3.2): Determine Monitoring Frequency

*i. Discharges to impaired waters without a TMDL.* For those permittees discharging to impaired waters without an approved TMDL, monitoring is required for the pollutant(s) of concern twice per wet season. Following the first year (i.e., first two wet seasons, or 4 samples), impaired waters monitoring is no longer required if the pollutant of concern is not detected above water quality standards or is not detected above natural background levels in the discharge (see Part 6.2.1.3), and the pollutant of concern is not expected to be present above natural background levels in the facility's discharge. If the permittee determines that the presence of the pollutant of concern is caused solely by the natural background levels of that pollutant, he/she must notify the Department of this finding and retain documentation of the basis for the determination with the SWPPP.

- Sampling must be conducted for surrogate or indicator pollutants if they were used in determining that the waterbody is impaired or if they have been specifically given a WLA in a TMDL.
- Sampling for pollutants of concern for impaired waters without a TMDL is only required where a standard analytical method exists for sampling that particular parameter.
- Permittees that discharge to impaired waters without a TMDL can now indicate in their monitoring report if the presence of a pollutant of concern in the first year's sampling is due solely to the natural background levels (see Part 6.2.1.3) of that pollutant, and, if so, discontinue monitoring.

The permittee should note that, as with all four types of monitoring in the permit, they can combine monitoring activities where requirements are duplicative (e.g., effluent limitation guideline and impaired water monitoring both require testing for the same parameter at the same outfall).

*ii. Discharges to impaired waters with an approved TMDL.* If the permittee discharges to an impaired water with an approved TMDL, monitoring is not required for the pollutant causing the impairment unless ADEQ informs the permittee that it is subject to such a requirement consistent with the goals of the applicable TMDL and/or WLA. Where applicable, the Department's notice will include specifications on which pollutant to monitor and the required monitoring frequency. The monitoring frequency can be changed depending on the results of sampling. If none of the samples in the first monitoring year indicate the presence of the TMDL pollutant(s), monitoring may be discontinued unless the TMDL indicates otherwise. Records of this monitoring must be retained with the SWPPP to indicate the pollutant(s) of concern are not present in the permittee's discharge, as required in Part 5.4, "Additional Documentation Requirements". However, if the pollutant of concern is detected in any samples during the first year, the permittee is required to continue monitoring at a minimum of once each permit year.

- Permittees that discharge to impaired waters with approved TMDLs are only required to monitor for the pollutant(s) causing the impairment where EPA specifically notifies those permittees of their specific monitoring requirements.
- Where sampling is required for discharges to impaired waters with TMDLs, sampling may be discontinued if the first two wet seasons of sampling (minimum of

4 samples) indicate that the pollutant of concern is not present, unless the TMDL specifically precludes this. If the pollutant of concern is detected, sampling should continue at a frequency of twice per wet season (or alternate frequency if specified in the TMDL, and notified of such by ADEQ).

Part 6.2.3 is intended to provide ADEQ with further information on the impacts permitted industrial facilities have on impaired waters, and to help ensure that the facilities are not causing or contributing to the impairment. For discharges to impaired waters that do not yet have TMDLs developed, these monitoring data are important when developing the TMDL in the future to identify potential sources of the pollutants causing the impairment as well as to identify sources that do not contribute the pollutant and thus should not be included in the TMDL. They are also important for assessing whether additional water-quality based requirements, either numeric or qualitative, are necessary on a site specific basis to ensure that the facility does not cause or contribute to a water quality standards violation. For discharges to waters for which a TMDL is applicable to the permittee, monitoring data provides a means of ensuring that the permittee is consistent with TMDL, as well as a useful tool to assess progress in meeting the goals of the TMDL.

#### **IX.B.4. Additional Monitoring Required by ADEQ (Part 6.2.4).**

As with the MSGP 2000, the MSGP 2010 requires facilities to perform additional discharge monitoring in those instances when ADEQ determines it is necessary to ensure the protection of receiving water quality. Such monitoring serves as a tool for the Department and the permittee to evaluate whether additional control measures are needed to protect receiving water quality.

Permittees that discharge to OAWs are required to submit a copy of the SWPPP at the beginning of the application process. Upon review of the SWPPP, ADEQ may determine that additional discharge monitoring is required. In this case, the Department will provide the appropriate facility with a brief description of why additional monitoring is needed, locations and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

ADEQ will require additional monitoring when there is evidence that a pollutant is being discharged that is not being monitored for and that the pollutant is causing or contributing to exceedances of a water quality standard.

#### **IX.C. Follow-up Actions if Discharge Exceeds Numeric Effluent Limitations or Water Quality Standards (Part 6.3)**

The MSGP 2010 includes follow-up monitoring provisions for pollutants that exceed an effluent limitation guideline or water quality standard (as specified in Part 2.2.2 of the permit) contained in the permit. This is a new requirement, designed to ensure that existing control measures are modified as necessary to bring the facility back into compliance with the effluent limitations and water quality requirements contained in the permit. The permit emphasizes that failure to complete follow-up monitoring and reporting within the stipulated time frames constitutes an additional violation of the permit, in addition to the initial effluent limitation or water quality standard violation. The MSGP 2000 required no follow-up monitoring for effluent limitation and water quality standard exceedances.

Follow-up monitoring provides a means to ensure that permittees will come back into compliance with applicable effluent limitations or water quality standards as soon as possible. While the AZPDES regulations require a minimum of annual monitoring to demonstrate compliance with applicable effluent limitations and water quality standards, the vast majority of AZPDES permits for industrial wastewater discharges require more frequent monitoring. The MSGP 2010 monitoring requirements of twice per wet season are deemed appropriate for stormwater discharges, provided the facility remains in compliance with the numeric effluent limitations and water quality standards. However, more frequent monitoring is appropriate once the effluent limitation or the standard is exceeded. Follow-up monitoring is required only for exceedances of effluent limitations or water quality standards contained in the permit. If the MSGP 2010 did not require any follow-up monitoring, an additional year would lapse before any confirmation that the facility has come back into compliance with the limitation or the standard. This is an unacceptably long period for the permittee to be potentially out of compliance with the limitations and/ or standards. The permit requires monitoring twice per wet season (as well as immediate corrective action with appropriate post-SWPPP documentation) when these exceedances occur, until the facility has come back into compliance.

Procedures and timeframes for responding to these exceedances are described in Section VI of this Fact Sheet. Monitoring, of course, must continue as part of the follow-up actions. The monitoring must be conducted during measurable storm events that occur during the summer and/ or winter wet seasons; hence at least two samples per wet season must be collected until the discharge is in compliance with applicable water quality requirements or numeric effluent limitations or the Department waives the requirement to continue monitoring. Also, consistent with other types of effluent monitoring, the permit requires that these follow-up monitoring results be reported to ADEQ (see Part 7 of the permit).

## **X. Reporting and Recordkeeping (Part 7)**

This part describes the requirements for submitting monitoring data to ADEQ to document stormwater quality and identify potential water quality concerns. Monitoring data must be submitted to document stormwater quality and identify potential water quality concerns to ADEQ.

### **X.A. Reporting Monitoring Data to ADEQ (Part 7.1)**

Permittees must submit all applications (i.e., notices of intent, notices of termination, no exposure), DMR forms, monitoring data and reports to ADEQ at the address indicated in Part 7.6. Do not submit any of the required information to EPA.

The purpose of submitting monitoring data is to document stormwater quality and identify potential water quality concerns to ADEQ. Monitoring data should be submitted using the MSGP discharge monitoring report (DMR) form that is available on the ADEQ website at: <http://www.azdeq.gov/environ/water/permits/stormwater.html>.

All monitoring data shall be submitted to ADEQ not later than July 15 of each year of permit coverage.

The MSGP 2000, in Part 7.1, required the 4 benchmark monitoring samples for each year to be submitted in one package at the end of the monitoring year. Monitoring for numeric limitations was required to be reported to ADEQ by the 28<sup>th</sup> day of the month following the monitoring period. In the MSGP 2010, the reporting deadline was modified to require data from

the previous two wet seasons be submitted by July 15 of each year of permit coverage. Benchmark and effluent limitations monitoring data must now be submitted on the same schedule, which should reduce the burden on permittees with both types of monitoring requirements.

### ***X.B. Annual Report (Part 7.2)***

All facilities are required to complete an annual report, but only those facilities that discharge to an impaired water or OAW are required to submit one to ADEQ. The annual report must include the findings from their annual comprehensive facility inspection report, a report detailing any conditions that triggered corrective actions and the status of those actions taken in response. All other dischargers that do not discharge to these specially designated waters should file the annual report with the SWPPP. An Annual Report Form is provided for use when filing the annual report. The requirement to file an annual report is intended to improve accountability by requiring that all dischargers to impaired waters or OAWs report to ADEQ at least annually, thus allowing the Department to confirm that required annual inspections and corrective actions have been performed to protect these waters. ADEQ expects information from the annual CFI and information on corrective actions to improve the basis on which to evaluate permittee performance and compliance that discharge to these listed waters.

ADEQ believes that some form of regular reporting is necessary from dischargers to impaired waters and OAWs to assess compliance with the effluent limitations and gauge how protective the SWPPP is in keeping pollutants out of stormwater discharges to these listed waters. The results of the annual comprehensive facility inspection will provide a better indication of permit compliance and potential water quality concerns than would 4 sets of monitoring results (covering two wet seasons) for a limited number of benchmark parameters that is not even applicable to all 25 sectors (analytical monitoring is not required for Sectors P, R, T, V, W, X, Z, AB & AC). Permittees that discharge to impaired waters and OAWs are required to submit a copy of the SWPPP at the beginning of the application process, but the SWPPP does not provide an indication of how well the control measures are performing during storm conditions. The CFI findings (and any corrective actions taken during the year) are a better tool to assess permittee implementation of control measures. Furthermore, the CFI report does provide a mechanism for assessing both the adequacy of a permittees' selected control measures and how well they are being implemented to meet the effluent limitations in the permit.

The MSGP 2000 did not require permittees to submit annual reports to ADEQ; rather, permittees were only required to retain a copy of the annual inspection report on-site with the SWPPP. Under the MSGP 2010, most permittees are not required to submit annual comprehensive facility inspection reports to ADEQ. The Department requires submission of annual reports only from facilities that discharge to an impaired water or OAW. The purpose is to gather information to identify potential water quality concerns and to assess compliance with permit provisions. Co-located facilities may be included on the same annual report.

Also, the MSGP 2000 did not have an inspection report template that could be used for conducting and documenting the findings of these inspections. As described above, most permittees covered under the previous permit were not required to submit any compliance monitoring information on which ADEQ could assess compliance.



### **X.C. Exceedance Report for Numeric Effluent Limitations or Water Quality Standards (Part 7.3)**

As described in Part 6.3, permittees must conduct follow-up monitoring any time a monitoring event identifies an exceedance of a numeric effluent limit or a water quality requirement (as specified in Part 2.2.2 of the permit). An exceedance report is a new requirement and enables ADEQ to assess: 1) the potential impact of these discharges on water quality; and 2) the adequacy of the permittee's response to the exceedance. Part 7.3 specifies that these data must be submitted to ADEQ no later than 30 calendar days after receiving lab results. Part 7.3 also identifies the specific information to be included in this report, which is necessary for ADEQ to assess the potential impact of this discharge on water quality and the adequacy of the permittees response in addressing the exceedance.

### **X.D. Other Reporting (Part 7.4)**

Permittees must comply with a number of different reporting requirements described throughout the permit. The MSGP 2000 did not contain a specific provision listing these additional reporting requirements in one place, although the standard permit conditions containing these substantive requirements were also included in MSGP 2000. Reporting requirements to be submitted to the Department are summarized in Part 7.4 and standard reporting requirements described in Appendix B, Subsection 12.

### **X.E. Recordkeeping (Part 7.5)**

Part 7.5 describes recordkeeping requirements associated with activities covered under the permit. Permittees must maintain certain records to help them assess performance of control measures and document compliance with permit conditions. Specific records must be maintained and includes the original SWPPP and any modifications to it. The recordkeeping must include the additional documentation, all reports and certifications required by the permit, monitoring data, and records of all data used to complete the NOI to be covered by the permit. These records provide a traceable historical record of installation, maintenance, and monitoring of control measures and revisions to those control measures documented in the SWPPP. Permittees must retain copies of these documents for a period of at least 3 years from the date that the permittee's coverage under the MSGP 2010 expires or is terminated. The recordkeeping requirements in Appendix B, Subsection B.12 include a more general statement of the AZPDES standard condition for records retention, but does not impose additional requirements on the permittee above what is required in Part 7.5. These requirements are consistent with federal regulations at 40 CFR 122.41(j), but have been tailored to more closely reflect requirements of the MSGP. The permit language specific to recordkeeping in Part 8 of the MSGP 2000 has been split amongst recordkeeping, reporting, and addresses for report submission.

### **X.F. Addresses for Reports (Part 7.6)**

Except for reports of non-compliance, all required documentation must be submitted to the Department's Stormwater Permits Unit at the address listed in the permit. Reports of non-compliance must be submitted to the Department's Water Quality Compliance Section.

## **XI. Sector-Specific Requirements for Discharges Associated with Industrial Activity (Part 8)**

Part 8 describes requirements specific to the particular industry sectors. The MSGP 2010 is available to facilities with stormwater discharges associated with industrial activity in 25 industry sectors (Sector A through F and Sector K through AC), as well as any discharge not covered under those sectors (Sector AD) that has been identified by ADEQ as appropriate for coverage. The sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes consistent with the definition of stormwater discharge associated with industrial activity at 40 CFR 122.26(b)(14)(i, ii, iv-ix, xi). Appendix C of the permit presents the specific information on each sector. Refer to Table 1 in Section III for the industrial sectors covered by the permit.

Except for the changes to the monitoring requirements described in Section IX of this Fact Sheet and the changes to individual sectors listed below, the general format and requirements in the sector-specific parts of the permit (Part 8) are similar to the MSGP 2000. A few general changes were made to each sector including:

- Clarified that the sector-specific requirements apply to both the primary industrial activity and any co-located industrial activities at the facility.
- Clarified that the sector-specific requirements are in addition to any requirements specified elsewhere in the permit.
- In many sub-sections of Sectors M through AC, several control measures are presented as possible options. The language was clarified that permittees must implement effective controls to minimize the introduction of pollutants into stormwater. Where several options are listed, the language now clarifies that permittees must implement one or more control measure options or other equivalent measures, as the permittee determines is appropriate for the particular facility and location.
- Deleted (for most sectors) the narrative section describing industrial activities covered by that sector in order to avoid any confusion with the list of activities in Appendix C. This narrative section was included in the MSGP 2000, however, the activities covered by the permit, including SIC Code or Activity Code, are already listed in Appendix C.
- Deleted or moved technology-based requirements that broadly apply to all sectors and are better described in the Part 2.1 control measures.
- Renamed the “SWPPP requirements” subpart to be “Additional Requirements” to highlight that these requirements are in addition to those included elsewhere in the permit (e.g., in Part 5).
- Clarified some requirements when an activity needs to be addressed in the SWPPP.
- Similar to Parts 2, 4, and 5 of the permit, separated the control measures, inspection requirements, and SWPPP documentation requirements into separate subsections of Part 8 of the permit, as appropriate, for each sector with any additional requirements.

Changes to several specific sectors are discussed in more detail below.

### **XI.A. Changes to Multiple Sectors**

***Separation of Benchmark and Effluent Limitation Guideline Monitoring Requirements.*** The MSGP 2000 included tables corresponding to specific sectors that, where applicable, consolidated both benchmark and effluent limitation guideline monitoring requirements. To

minimize confusion between these two types of monitoring, which have different requirements and serve different functions in the permit, benchmarks and effluent limitation guidelines are separated into two tables in the MSGP 2010. This change affects Sectors A, C, D, E, K, and L.

***Removal of Duplicative Sector-Specific Requirements.*** The Sector-based requirements are better streamlined by eliminating those conditions which are duplicative of the Part 2.1 control measures. The list of requirements below were deleted or significantly modified in the “additional requirements” part of the sector-specific conditions (most of which were also carried over from the MSGP 2000):

- Sector C: 8.C.4.1 (drainage area site map), 8.C.4.2 (potential pollutant sources), and 8.C.4.3 (good housekeeping measures);
- Sector D: 8.D.4.1 (inspections);
- Sector E: 8.E.3.3 (inspections);
- Sector L: 8.L.5.3 (good housekeeping measures) and 8.L.5.9 (comprehensive site compliance evaluations);
- Sector N: 8.N.4.2.7 (spill prevention and response procedures), 8.N.4.2.8 (inspections), and 8.N.4.3.4;
- Sector O: 8.O.4.2.14 (vehicle maintenance activities) and 8.O.4.2.15 (material storage areas);
- Sector Q: 8.Q.4.3.7 (general yard area) and 8.Q.4.7 (comprehensive site compliance evaluation);
- Sector R: 8.R.3.3.7 (general yard area) and 8.R.3.7 (comprehensive site compliance evaluation);
- Sector V: 8.V.4.5 (comprehensive site compliance evaluation);
- Sector X: 8.X.3.1 (drainage area site map) and 8.X.3.2 (potential pollutant sources);
- Sector AA: 8.AA.3.5.3 (receiving, unloading, and storage areas) and 8.AA.3.5.4 (storage of equipment); and
- Sector AB: 8.AB.3.2 (non-stormwater discharges).

In addition, numerous minor modifications were made to other sector-specific requirements to eliminate duplication with other parts of the permit. For example, Sector L no longer contains the requirement to maintain containers to prevent leaking because it is already required by Part 2.1.1.4 of the permit. All of these changes are organizational only. Except where otherwise noted, the substantive control requirements previously contained in these sections have not changed.

## ***XI.B. Sector C – Chemical and Allied Products Manufacturing and Refining***

***Industrial Activities Covered by Sector C*** (Part 8.C.1). The permit defines the scope of coverage for discharges from chemical and allied products manufacturing and refining facilities.

The language in this version (Part 8.C.1) was modified from MSGP 2000 to include petroleum refining activities (SIC 2911), previously covered under Sector I (oil and gas extraction activities). This change was made because petroleum refining activities are much more similar to chemical and allied products manufacturing than to oil and gas extraction activities and stormwater controls for these activities are, likewise, expected to be similar.

### **XI.C Sector D1 – Asphalt Batch/ Bituminous Concrete Plants (SIC 2951, Sector D – Asphalt batch/ Bituminous Concrete Plants)**

*Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Sector D Facilities* (Part 8.D.3).

Asphalt batch plants may operate intermittently, according to market demand. Asphalt batch/ bituminous concrete plants (SIC 2951) are eligible for the modified waiver language for benchmark monitoring for inactive and unstaffed sites. To receive the waiver, facilities in this sector must remove all potential pollutant sources used in the manufacture of asphalt, with the exception of the aggregate stockpiles, which are derived either from the adjoining sand and gravel excavation site (in the case of co-located facilities with Sector J) or are hauled in bulk from a nearby source. Permit holders of Sector D facilities must establish control measures around these piles to ensure no pollutants are discharged with stormwater offsite.

### **XI.D Sector E2 – Concrete Batch Plants (Sector E – SIC 3273)**

*Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirements for Sector E Facilities Co-located at Sector J Facilities* (Part 8.E.4).

Concrete batch plants are often co-located on sand and gravel mining sites (Sector J) and may be used intermittently, according to market demand. Only co-located ready-mixed concrete plants; those primarily engaged in mixing and delivering ready-mixed concrete (SIC 3273) are eligible for the modified waiver language for benchmark monitoring for inactive and unstaffed sites. To receive the waiver, facilities in this sector must remove all potential pollutant sources used in the manufacture of concrete, with the exception of the aggregate stockpiles, which are derived from the adjoining sand and gravel excavation site. Other facilities in Sub-Sector E2 that manufacture brick (SIC 3271), pre-cast concrete (SIC 3272), lime (SIC 3274), gypsum products (SIC 3275) and concrete block are not eligible for this waiver.

### **XI.E Sector K – Hazardous Waste Treatment Storage or Disposal Facilities**

*Industrial Activities Covered by Sector K* (Part 8.K.2). Part K.2 identifies facilities that are eligible for coverage under Sector K. It also clarifies that disposal facilities that have been properly closed and capped do not need coverage under an AZPDES permit.

The language relating to the exemption of disposal facilities which have been properly closed and capped was not included in the MSGP 2000 and is a new provision. EPA's intention for facilities that have properly closed and capped their disposal areas is that they are exempt from MSGP permitting requirements consistent with applicable Subtitle C Resource Conservation and Recovery Act (RCRA) regulations and no longer have any significant materials exposed to stormwater. The definitions for "land treatment facility," "pile," and "surface impoundment" were also removed because these terms are not used in the permit. The Department acknowledges that these are three common hazardous waste management practices that may be used by permittees eligible for coverage under the permit.

### **XI.F. Sector L – Landfills, Land Application Sites, and Open Dumps**

Transfer stations are a covered industrial activity under the permit, but not under Sector L. See discussion under Section XI.I, Sector P.

**Inspection Schedule of Active Sites** (Part 8.L.7.1). The inspection schedule for landfills (Sector L, Part 8.L.7.1) is adapted to Arizona's arid climate; namely the inspections should occur at least once per month. Language has also been added to provide for increased protections of impaired and outstanding Arizona waters from pollutants in stormwater. Active sites with a discharge point within 1/4 mile of impaired or outstanding Arizona waters must be inspected at least twice per month, with at least 7 calendar days between inspections. Operators must visually observe stormwater discharges at every discharge location within one business day of the end of a measurable storm event. The stepped up inspection schedule for sites within 1/4 mile of impaired or outstanding Arizona waters is expected to encourage operators to spot failing control measures early and prevent discharge to these waters so as not to contribute further to their impairment.

### **XI.G. Sector N – Scrap Recycling and Waste Recycling Facilities**

**Scrap and Recyclable Waste Processing Areas** (Part 8.N.3.1.5). This section identifies control measure requirements for scrap and recyclable waste processing areas for facilities in Sector N.

An earlier draft of EPA's MSGP considered a new control measure requirement to remove mercury switches from the hood and trunk lighting units and anti-lock brake systems. The final permit removes this language.

For background, automotive recyclers, in Sector M (Automobile Salvage Yards), process retired passenger vehicles, removing parts for reuse, recycling, or disposal, and then sell the stripped-down vehicles to scrap recyclers. Scrap recyclers, in Sector N (Scrap Recycling and Waste Recycling Facilities), shred the vehicles and produce scrap metal for sale to steelmakers. The mercury in certain switches used in many vehicles prior to 2003 can, if the switches are not recovered before the vehicles are flattened or shredded, be released into the environment later in this recycling stream, especially from steel mill furnaces.

In the absence of a national solution to this problem, EPA considered including a requirement for facilities in Sectors M and N to remove and dispose of these mercury-containing switches. However, the requirement is not included in the permit as it was considered unnecessary given that facilities in Sectors M and N now have the option to participate in, or to purchase car hulks that have come through, the National Vehicle Mercury Switch Recovery Program (NVMSRP), and have various incentives to do so. This comprehensive voluntary program, established in August 2006, is available to all such facilities, regardless of the State in which the facility is located or whether the facility has a stormwater permit. Complete information about the program is available on-line at [www.epa.gov/mercury/switch.htm](http://www.epa.gov/mercury/switch.htm).

**Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage)** (Part 8.N.3.1.3). This section specifies two options for managing turnings exposed to cutting fluids: (1) manage the wastes to eliminate contact between the turnings that have been exposed to cutting fluids and precipitation; or (2) where this is not possible, capture and treat any contaminated stormwater from these areas. The MSGP 2000 included similar requirements; however, the current language provides clearer direction for managing these wastes.

**Inspection Requirements** (Part 8.N.5.1). This section requires Sector N permittees to perform quarterly site inspections, as required in Part 4.1, but also specifies, at a minimum, that such inspections include all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or stormwater runoff.

**Sector-Specific Benchmarks** (Table 8.N-1). This table presents benchmarks for all non source-separated recycling facilities.

### **XI.H. Sector O – Steam Electric Generating Facilities**

Changes were made to this sector to clarify exactly what types of facilities are covered while preserving the original intent of the stormwater regulations and the rationale presented in the MSGP 1995. In past permits, there has been considerable confusion about the types of power generation facilities covered or not covered by the regulations. One source of confusion stemmed from EPA's use of the term "dual-fuel cogeneration facilities" (which were covered by the MSGP). This term was not previously defined in the permit, and, subsequent to its introduction, became archaic within the power generation industry. Therefore, the applicable terminology has been updated and defined in the permit. The revised terminology does not change the universe of covered facilities. Facilities covered by this sector are described narratively rather than by SIC codes. Broadly speaking, and in accordance with 40CFR 122.26(b)(14)(vii), every facility that generates power using steam somewhere in the process (either as a primary or secondary energy source for moving turbines) is covered by this permit. However, as discussed below, there are qualifications and exceptions. These qualifications and exceptions generally revolve around whether the steam electric facility uses a fossil fuel or nuclear source as a fuel back-up.

**Industrial Activities Covered by Sector O** (Part 8.O.2.3). "Dual fuel co-generation facilities" has been replaced with "dual fuel facilities that could employ a steam boiler." The language in Part 8.O.2.3 of the permit was not included in the MSGP 2000.

The EPA and accepted industry definition of *cogeneration* is "the merging of a system designed to produce electric power and a system used for producing industrial heat and steam" (Profile of the Fossil Fuel Fired Electric Power Generation Industry notebook, September, 1997). Cogeneration technologies are classified as "topping cycle" and "bottoming cycle" systems, depending on whether the electrical (topping cycle) or thermal (bottoming cycle) energy is derived first. Most cogeneration systems use a topping cycle. The most common configurations are: 1) a boiler connected to a steam turbine; or 2) a gas turbine, followed by a heat recovery steam generator (HRSG) which may include a duct burner for supplemental firing, followed by a steam turbine. Regardless of the configuration, both electricity and steam (or heat) are end products.

Typically, the boilers in configuration 1 are fired with coal or oil and the gas turbines in configuration 2 are primarily fired with natural gas with fuel oil as a back up at some facilities. The duct burner in the HRSG is typically fired with natural gas. Boiler facilities (configuration 1) generate their electricity from the use of steam, whereas gas combustion turbine facilities (configuration 2) generate their electricity primarily from the gas turbine cycle. Configuration 1 facilities are the type EPA has always required to obtain permit coverage.

The EPA and accepted industry definition of *combined-cycle generation* is "a configuration using both gas turbines and steam generators. In a combined-cycle gas turbine, the hot exhaust gases of a gas turbine are used to provide all, or a portion of, the heat source for the boiler, which produces steam for the steam generator turbine." Typical configurations include a gas turbine, a fired or unfired HRSG, and a steam turbine generator. The gas turbines are primarily fired with natural gas and some may fire fuel oil as a back up (see dual-fuel discussion below).

As stated in the introductory paragraph to this sector, the term “dual-fuel cogeneration facilities” (identified as needing coverage) has been dropped from the permit because it is not used within the power generation industry. The concept of dual fuel will be addressed to preserve the intent of past permits. A *dual-fuel* facility has the capability of generating electricity by burning either natural gas or another fossil fuel (typically oil). Thus, a simple-cycle dual-fuel facility being regulated by the permit would have the capability of using both a gas turbine and an oil-fired steam boiler (or both in tandem), but would not include a facility that burns oil to generate power without a steam boiler (as in a diesel generator).

A regulated combined-cycle facility would also have a gas-steam option (in this context, prior to the HRSG component). For dual-fuel facilities, the option to burn fossil fuel for use in a steam boiler is sufficient to cause the facility to need permit coverage (regardless of whether the gas turbine alone is actually used). The inclusion of dual-fuel facilities, but only those that could employ a steam boiler, in the permit is consistent with the intent of previous stormwater permits.

**Limitations on Coverage** (Part 8.O.3). Those types of facilities that do not need permit coverage (i.e., they do not have a steam component in their power generation) have been listed in this section of the permit due to the numerous types of power plants using different combinations of processes and technologies. One of these plant types not covered under the permit that uses multiple technologies was previously identified as a “heat capture co-generation facility,” but the use of this terminology has long been a source of confusion and is regarded as obsolete. Clarifying language for this term was added, as well as extra explanations regarding the absence of steam boilers for the other non-covered facility types, ancillary facilities and gas turbine facilities. The language in Part 8.O.3.2 was not included in the MSGP 2000.

As previously noted, duct burners in HRSGs are typically fired with natural gas. Along with simple-cycle gas turbine facilities (see 8.O.3.2.2) and configuration 2-type gas turbine cogeneration facilities (see 8.O.3.2.3), combined-cycle generation facilities are also not covered by stormwater permitting requirements, provided no supplemental fuel oil is burned in the HRSG and the facility is not otherwise a dual-fuel facility which uses steam.

Cogeneration facilities, which are of the type described under configuration 2 above, are equivalent to the obsolete term “heat capture cogeneration facilities.” Therefore, gas turbine cogeneration facilities (only those that do not have an oil-fired steam boiler as a back up; see the dual-fuel discussion above) are likewise excluded from stormwater permit coverage.

**Additional Requirements** (Part 8.O.4). Part 8.O.4 imposes additional requirements that supplement the Part 2.1 technology-based requirements. Requirements for vehicle maintenance activities and material storage areas (Part 6.O.4.2.14 and Part 6.O.4.2.15 of the MSGP 2000, respectively) duplicate those of Part 2.1 of the permit and were deleted.

## **XI.I. Sector P – Land Transportation and Warehousing**

**Transfer stations – refuse collection and transportation of refuse** – are a covered industrial activity under the permit, but not under Sector L. The SIC Manual states: “Establishments primarily engaged in collecting and transporting refuse without such disposal are classified in Transportation, Industry 4212.” This code brings the transfer aspect of waste disposal into the permit. In other words, in accordance with the SIC Manual description, local trucking or transfer services without storage are covered under Sector P (SIC 4212).

## **XI.J. Sector S – Air Transportation**

Sector S was modified so that permittees may align appropriate permit activities to facilities' deicing timeframes; i.e., it is most appropriate to monitor for deicing-related parameters only when deicers are used. Hence, the permit now includes requirements to identify operators' deicing/anti-icing season and to perform applicable deicing-related permit tasks at the appropriate time and place. Also, as described in Section X.B.1.a.iii of the Fact Sheet, the ammonia benchmark is now 2.14 mg/L, a reduction from 19 mg/L in the previous permit. In general, ammonia discharges are attributable to the use of urea for deicing purposes although lower levels of ammonia have been detected as by-products from wastewater collection and treatment of other deicers.

**Deicing Season** (Part 8.S.4.2.1). The permittee must document in the SWPPP the seasonal timeframe (e.g., December- February) during which deicing activities typically occur at the facility. The permit requires an emphasis on conducting deicing-related stormwater control tasks such as implementation of control measures, monitoring, and facility inspections during the defined deicing season. In addition, for operators meeting the annual average deicing chemical usage minimums of 100,000 gallons glycol or 100 tons of urea, all benchmark monitoring samples must be taken during the identified deicing season for the deicing-related parameters (BOD, COD, ammonia and pH).

EPA's MSGP 2008 lists two best management practices for managing stormwater runoff that is contaminated by deicing operations: 1) direct runoff into unlined vegetative swales or other infiltration measures; and/ or 2) direct runoff into a wet pond for biochemical decomposition. Before either of these practices would be allowed in Arizona, an aquifer protection permit (APP) would be required. These two BMP options were eliminated and replaced with the substitute option to direct contaminated runoff into lined impoundments for evaporation. The department views this as an adequate option for Sector S permittees, although the lined impoundment will require coverage under a Type 3.01 General APP (see A.A.C.R18-9-D301).

Under the APP program, a permit is required for any facility that seeks to discharge to the aquifer or vadose zone (the zone between the ground surface and any aquifer). ARS § 49-241, specifies that surface impoundments are a discharging facility that must obtain an APP. ADEQ has developed general permits to govern certain impoundments, specifically the Type 3 General Permits. To obtain coverage under a Type 3 APP, a surface impoundment must meet the requirements established in rule concerning design, installation, and operation, and the permittee must follow the specific terms of the permit regarding monitoring, reporting and closure. The owner of the surface impoundment must file the appropriate Notice of Intent forms and supplemental information, and pay the applicable general permit review fees. An operation that is unable to meet the Type 3 General Permit requirements must obtain coverage under an individual APP.

Commenters to EPA's MSGP 2008 suggested that confusion exists regarding how to determine the glycol and urea "average annual usage rate" which determines whether deicing-related benchmark parameter monitoring must be done. For clarification, this rate is determined by averaging the total amounts of deicing/anti-icing chemicals used for the three previous calendar years by the airport authority plus all tenants. It is recognized that dilution of chemicals is standard procedure, so the pre-dilution volumes of the chemicals should be used.



Arizona stakeholders suggested lengthening the 14 day requirement to document corrective actions taken (see Part 3.2). The purpose would be to allow adequate time for operators of large airports to contact co-permittees about deficiencies found in their SWPPPs or at their facilities during inspections. ADEQ added a new section (“Additional Corrective Action Deadline Requirements” – Part 8.S.4) that allows operators that jointly prepare SWPPPs with their tenants (co-permittees) to have up to 30 calendar days (an additional 16 days beyond the 14). The Department recognizes that the 14 day timeframe for the largest airports in the state may be too short, if operating under one jointly prepared SWPPP with a multitude of tenants. However, this additional time applies only to situations where co-permittees sign on to a jointly prepared SWPPP, but also file separate NOIs. If some airport tenants choose to write their own SWPPP and file a separate NOI, this time extension does not apply.

As discussed above, in the final permit, the ammonia benchmark was lowered from 19 mg/L to 2.14 mg/L. This change affects both Sector S and Sector K facilities. See Section IX.B.1.a.iii for more specific information.

## **XII. Included Appendices**

The four appendices to the permit include: definitions, abbreviations and acronyms; standard conditions; a table of sector-specific SIC codes covered by the permit; and guidance for calculating hardness.

Appendix A – Definitions, Abbreviations and Acronyms

Appendix B – Standard Permit Conditions – the standard conditions in the MSGP 2010 are essentially consistent with the standard conditions in other AZPDES general permits. However, the MSGP 2010 contains the following additional provisions and revisions:

- o Appendix B.9 – as with EPA’s permit, Appendix B.9(c) was added to define a “duly authorized representative.”
- o Appendix B.11(d) and 12(b) – All references to “sludge use or disposal” were removed because such requirements do not apply to MSGP dischargers.
- o Additional language from Appendix B.12(d) from EPA’s MSGP 2008 about monitoring reports has been incorporated into Part 7 of the MSGP 2010 to reflect EPA’s updated conditions.
- o Includes bypass and upset conditions incorporated as Appendix B.21 and B.22, respectively.

Appendix C – Facilities and Activities Covered – Sectors A through F and K through AD are covered. The mineral industry of 40 CFR 122.26(b)(14)(iii) are covered in a separate MSGP (Sectors G, H, I and J).

Appendix D – Calculating Hardness in Surface Waters Receiving Stormwater Discharges for Hardness Dependent Metals – Appendix D describes the alternatives for establishing the hardness level for an operator’s receiving water. This appendix provides guidance to operators for determining their receiving water’s hardness level and is calculated up to 400mg/ L to reflect hardness conditions in Arizona’s waters. This language did not exist in the MSGP 2000, which did not include hardness-dependent benchmarks. Appendix D was created to help implement the Part 6.2.1.1 requirement for dischargers required to conduct benchmark monitoring for hardness-dependent metals to determine their receiving water’s hardness level.

### **XIII. Applicable Forms**

Described briefly herein are applicable forms associated with the MSGP 2010.

#### **XIII.A. Notice of Intent (NOI)**

Like the MSGP 2000, the MSGP 2010 requires all facilities to prepare and submit a complete and accurate NOI for ADEQ review to be eligible for permit coverage. The NOI form provides the information necessary for ADEQ to determine an industrial operator's eligibility to discharge under the permit, and enables the Department to match permittees with their respective monitoring requirements and to prioritize oversight activities. All new and existing facilities must submit NOIs in accordance with the deadlines provided in Table 1-2 of the permit.

The NOI form has been updated and expanded from previous versions. Permittees must provide the following types of information on the NOI form: (A) Application Revision, (B) Facility Operator Information, (C) Facility Information, (D) Discharge Information, (E) SWPPP Information, and (F) Certifier Name and Title. All of these changes help to clarify permit eligibility and monitoring requirements were adopted by ADEQ. The changes include:

- Section A, Application Revision – Permittees are requested to submit an “application revision” whenever there is a change to information submitted on the initial NOI under this permit.
- Section B, Facility Operator Information – Permittees are asked for the operator's e-mail address.
- Section C, Facility Information – Permittees may use one of three formats to provide latitude/longitude data. The form also asks for the estimated area of industrial activity at the site exposed to stormwater.
- Section D, Discharge Information – A new section on discharge information was added to Section D. The form asks clarifying questions about the receiving water including whether the water is impaired, the name of the impaired water, the pollutants for which the water is impaired, and whether a TMDL has been developed. For new or increased dischargers, the permittee must answer questions about whether the receiving water is considered an impaired or OAW waterbody. The form also asks which effluent limitation guidelines potentially apply. The new form requires the primary SIC or activity code. Space for up to six additional SIC codes is provided (addressing all the applicable sectors and subsectors for that facility). The form no longer asks for secondary SIC codes. The form asks whether the operator expects the site to be inactive and unstaffed during the permit term, and, if so, how long the site is expected to be inactive and unstaffed.
- Section E, SWPPP Contact Information – Permittees are asked to provide contact information for the SWPPP and confirm that the SWPPP has been developed and implemented.
- Section F, Certified Name and Title – Contact information on the NOI preparer is a new requirement, if the NOI was prepared by someone other than the certifier.

#### **XIII.B. Notice of Termination**

Part 1.4 of the permit requires permittees to submit a Notice of Termination within 30 calendar days after a new owner or operator assumes responsibility for a facility. Other situations may arise in which a permittee would be advised to submit an NOT.

### ***XIII.C. Annual Reporting Form***

Part 7.2 requires permittees with facilities that discharge to impaired waters or OAWs to submit an annual report using the Annual Reporting Form provided by the Department. This form asks for general information on the facility, summary findings from the comprehensive facility inspection (CFI), and a description of corrective actions taken and the status of follow-up repairs, maintenance activities, or new BMP installations. The Annual Reporting Form is also required for other permittees to document the CFI that do not discharge to impaired waters or OAWs, although they are only required to retain a copy with the SWPPP and submit a copy to ADEQ upon request. This establishes a consistent reporting format for permittees to use for the annual report. The Annual Report is a new requirement.