ADEQ Inventory No.	100601	Permit No.	AZ0023558
LTF No.	102113	Place ID No.	978

AUTHORIZATION TO DISCHARGE UNDER THE ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 3.1; the Federal Water Pollution Control Act, (33 U.S.C. §1251 *et seq*., as amended), and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 9 and 10, and amendments thereto the,

Salt River Project (SRP)
Santan Generating Station (Santan)
P. O. Box 52025
Mail Station: STS 300
Phoenix, Arizona 85072

is authorized to discharge cooling tower blowdown, heat recovery steam generator blowdown, other low volume wastes, stormwater, and non-process raw water from the Santan Generating Station (Santan) located at 1005 South Val Vista Drive in Gilbert, Maricopa County, Arizona to SRP Lateral 4-8.4, SRP Lateral 5-9.0, and SRP Lateral 5-9.5 to the Western Canal (a Phoenix Area Canal) or to SRP Lateral 4-11.4 and SRP Lateral 5-11.0 to an ADOT stormwater drainage system and eventual tributary to the Salt River in the Middle Gila River Basin in Maricopa County, both of which are Waters of the U.S (WOTUS) in Arizona. Discharge is permitted from Santan at:

Outfall No.	Latitude	Longitude	Legal
001	33˚ 19’ 53.82” N	111˚ 44’ 59.09” W	Township 1 S, Range 6 E, Section 21
005	33˚ 20’ 01.65” N	111˚ 44’ 57.30” W	Township 1 S, Range 6 E, Section 21
021	33˚ 20’ 01.65” N	111˚ 44’ 57.30” W	Township 1 S, Range 6 E, Section 21

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein, and in the attached “Standard AZPDES Permit Conditions.”

Annual Registration Fee [A.R.S. 49-255.01 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. For the purposes of the annual fees, this permit is a major permit. Please reference the permit number, LTF number, and why reduced fees are requested under rule.

This permit shall become effective on _____, 2024.

This permit and the authorization to discharge shall expire on _____, 2029.

Signed _____.

_____
Josephine Maressa, Deputy Director
Water Quality Division
Arizona Department of Environmental Quality

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PART I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Effluent Limitations and Monitoring Requirements

The Permittee shall limit and monitor discharges from Outfalls 001 and 005 as specified in Tables 1.a – 1.d, and Outfall 021 in Table 1.e, which follows. Discharges to Outfalls 001 and 005 are only permitted when the Roosevelt Water Conservation District (RWCD) Irrigation Canal and Tailwater Ditch are not available. Discharge to Outfall 021 may be used as necessary to support plant operations, but is typically reserved for occurrences when the RWCD Irrigation Canal and Tailwater Ditch are incapable of receiving the discharge volume from Santan.

Table 1.a. Chronic Effluent Limitations and Monitoring Requirements for Outfall 001.
(Applies to discharges of seven (7) or more consecutive days with less than 30 days between discharges)

Parameter	Maximum Allowable Discharge Concentration Limit		Monitoring Requirement (1)(3)	
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD) (4)	REPORT	REPORT	Continuous	Metered
Chlorine, Free Available (FAC)(5)(6)	0.2 mg/L	0.5 mg/L	1x/month	Discrete
Chlorine, Total Residual (TRC) (5)(6)	9.0 µg/L	18 µg/L	1x/month	Discrete
Chromium, Total	200 ug/L	200 ug/L	1 x/month	Discrete
Chromium VI	8.0 ug/L	16 ug/L	1 x/month	Discrete
Arsenic	120 µg/L	250 µg/L	1x/month	Discrete
Copper	30 µg/L	61µg/L	1x/month	Discrete
Mercury	0.01 µg/L	0.02 µg/L	1x/month	Discrete
Nickel	170 µg/L	330 µg/L	1x/month	Discrete
Selenium	2 µg/L	3 µg/L	1x/month	Discrete
Zinc	1,000 µg/L	1,000 µg/L	1x/month	Discrete
Oil and Grease	15 mg/L	20 mg/L	1x/month	Discrete
Total Suspended Solids (TSS)	30 mg/L	100 mg/L	1x/month	Discrete
Hardness ($CaCo_3$)(4)	Report	Report	1x/month	Discrete
pH (2)(6)	Not less than 6.5 standard units (S.U.) not greater than 9.0 S.U.		1x/week	Discrete

Footnotes

1 All metals effluent limits are for total recoverable metals, except for chromium VI, for which the discharge limits listed are for dissolved.

2 Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.B, Table 3 of the permit. See Part III of the permit.

3 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

4 Monitoring and reporting required. No limit set at this time.

5 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.5 for specific monitoring requirements for chlorine.

6 pH, FAC, and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

Table 1.b. Chronic Effluent Limitations and Monitoring Requirements for Outfall 005.
(Applies to discharges of seven (7) or more consecutive days with less than 30 days between discharges)

Parameter	Maximum Allowable Discharge Concentration Limit			Monitoring Requirement (1)(3)
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD) (4)	REPORT	REPORT	Continuous	Metered
Chlorine, Free Available (FAC)(5)(6)	0.2 mg/L	0.5 mg/L	1x/month	Discrete
Chlorine, Total Residual (TRC)(5)(6)	9.0 µg/L	18 µg/L	1x/month	Discrete
Chromium, Total	200 ug/L	200 ug/L	1 x/month	Discrete
Chromium VI	8.0 ug/L	16 ug/L	1x/month	Discrete
Iron	800 µg/L	2,000 µg/L	1x/month	Discrete
Mercury	0.01 µg/L	0.02 µg/L	1x/month	Discrete
Selenium	2 µg/L	3 µg/L	1x/month	Discrete
Zinc	1,000 µg/L	1,000 µg/L	1x/month	Discrete
Oil and Grease	15 mg/L	20 mg/L	1x/month	Discrete
Total Suspended Solids (TSS)	30 mg/L	100 mg/L	1x/month	Discrete
Hardness ($CaCo_3$)(4)	Report	Report	1x/month	Discrete
pH (2)(6)	Not less than 6.5 standard units (S.U.) not greater than 9.0 S.U.		1x/week	Discrete

Footnotes

1 All metals effluent limits are for total recoverable metals except for chromium VI, for which the discharge limits listed are for Dissolved.

2 Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.B, Table 3 of the permit. See Part III of the permit.

3 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

4 Monitoring and reporting required. No limit set at this time.

5 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.5 for specific monitoring requirements for chlorine.

6 pH, FAC, and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

Table 1.c. Acute discharge limitations and monitoring requirements for Outfalls 001.

(Applies to discharges of less than seven (7) consecutive days or with at least 30 days between discharges.)

Parameter	Monitoring Requirement (1)(3) Mass Limits			
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD) (4)	REPORT	REPORT	Continuous	Metered
Chlorine, Free Available (FAC)(4)(5)(6)	- - -	0.5 mg/L	1x/month	Discrete
Chlorine, Total Residual (TRC) (5) (6)	- - -	18 µg/L	1x/month	Discrete
Chromium, Total	- - -	200 ug/L	1x/month	Discrete
Chromium VI	- - -	16 ug/L	1x/month	Discrete
Copper	- - -	64 µg/L	1x/month	Discrete
Mercury	- - -	0.02 µg/L	1x/month	Discrete
Oil and Grease	- - -	20 mg/L	1x/month	Discrete
Total Suspended Solids (TSS)	- - -	100 mg/L	1x/month	Discrete
Hardness ($CaCo_3$) (4)	Report	Report	1x/month	Discrete
Zinc	- - -	1,000 µg/L	1x/month	Discrete
pH (2)(6)	Not less than 6.5 standard units (S.U.) not greater than 9.0 S.U.		1x/week	Discrete

Footnotes

1 All metals effluent limits are for total recoverable metals except for chromium VI, for which the discharge limits listed are Dissolved.

2 Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.B, Table 3 of the permit. See Part III of the permit.

3 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a reported LOQ below the SWQS cannot be achieved the permittee shall use the method with the lowest LOQ, per Part II.A.4. See Part II.A.4for how to determine the method LOQ in the absence of a published value. Samples are to be representative of seasonal variation in the discharge.

4 Monitoring and reporting required. No limit set at this time.

5 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.5 for specific monitoring requirements for chlorine.

6 pH, FAC, and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

Table 1.d. Acute discharge limitations and monitoring requirements for Outfalls 005. (Applies to discharges of less than seven (7) consecutive days or with at least 30 days between discharges.)

Parameter	Monitoring Requirement (1)(3)			
	Concentration Limits			
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD) (4)	REPORT	REPORT	Continuous	Metered
Chlorine, Free Available (FAC)(4)(5)(6)	- - -	0.5 mg/L	1 x/month	Discrete
Chlorine, Total Residual (TRC) (5) (6)	- - -	18 µg/L	1 x/month	Discrete
Chromium, Total	- - -	200 ug/L	1x/month	Discrete
Chromium VI	- - -	16 ug/L	1x/month	Discrete
Iron	- - -	2,000 µg/L	1 x/month	Discrete
Mercury	- - -	0.02 µg/L	1 x/month	Discrete
Oil and Grease	- - -	20 mg/L	1 x/month	Discrete
Total Suspended Solids (TSS)	- - -	100 mg/L	1 x/month	Discrete
Hardness ($CaCo_3$) (4)	Report	Report	1 x/month	Discrete
Zinc	- - -	1,000 µg/L	1x/month	Discrete
pH (2)(6)	Not less than 6.5 standard units (S.U.) not greater than 9.0 S.U.		1x/week	Discrete

Footnotes

1 All metals effluent limits are for total recoverable metals, except for chromium VI, for which the limits listed are dissolved.

2 Testing must coincide with the Whole Effluent Toxicity Test (WET) samples, if any, taken during that monitoring period as per Part I.B, Table 3 of the permit. See Part III of the permit.

3 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a reported LOQ below the SWQS cannot be achieved the permittee shall use the method with the lowest LOQ, per Part II.A.4. See Part II.A.4 for how to determine the method LOQ in the absence of a published value. Samples are to be representative of seasonal variation in the discharge.

4 Monitoring and reporting required. No limit set at this time.

5 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.5 for specific monitoring requirements for chlorine.

6 pH, FAC, and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

Table 1.e. Effluent Limitations and Monitoring Requirements for Outfall 021

Parameter	Monitoring Requirement (1) (2) Concentration Limits			
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD)(3)	REPORT	REPORT	Continuous	Metered
Chlorine, Free Available (FAC)(3)(4)(5)	Report	Report	1x/month	Discrete
Chromium, Total	200 ug/L	200 ug/L	1x/month	Discrete
Boron	1,000 µg/L	2,000 µg/L	1x/month	Discrete
Selenium	20 µg/L	40 µg/L	1x/month	Discrete
Zinc	1,000 µg/L	1,000 µg/L	1x/month	Discrete
Oil and Grease	15 mg/L	20 mg/L	1x/month	Discrete
Total Suspended Solids (TSS)	30 mg/L	100 mg/L	1x/month	Discrete
pH (5)	Not less than 6.5 standard units (S.U.) not greater than 9.0 S.U.		1/week	Discrete

Footnotes

1 All metals effluent limits are for total recoverable metals.

2 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a reported LOQ below the SWQS cannot be achieved the permittee shall use the method with the lowest LOQ, per Part II.A.4 See Part II.A.4 for how to determine the method LOQ in the absence of a published value. Samples are to be representative of seasonal variation in the discharge.

3 Monitoring and reporting required. No limit set at this time.

4 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.5 for specific monitoring requirements for chlorine.

5 pH, FAC, and TRC must be measured at the time of sampling and do not require use of a certified laboratory. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

B. Trace Substance Monitoring

The permittee shall monitor discharges from Outfall 001 and 005 as specified in Table 2. Monitoring results above the Assessment Levels (ALs) listed below do not constitute a permit violation, but may trigger evaluation of Reasonable Potential (RP) by ADEQ. The permittee shall use an approved analytical method with a Limit of Quantitation (LOQ) lower than the AL values as described in Part II.A.4.

Table 2. Assessment Level Monitoring for outfalls 001 & 005

Parameter	Monitoring Requirement (1)(2) Concentration Limit			
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Cyanide, Total	7.9 µg/L	16 µg/L	1x/month	Discrete

Footnotes

1 Cyanide effluent limit is for total recoverable metals.

2 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a reported LOQ below the SWQS cannot be achieved the permittee shall use the method with the lowest LOQ, per Part II.A.4. See Part II.A.4 for how to determine the method LOQ in the absence of a published value. Samples are to be representative of seasonal variation in the discharge.

C. Whole Effluent Toxicity Monitoring

1. The permittee shall monitor discharges from Outfall 001 and 005 for Whole Effluent Toxicity (WET) as specified in Table 3 which follows. If toxicity is detected above an Action Level specified as follows, the permittee must perform follow-up testing and, as applicable, follow the TIE/TRE processes in Part III.E. of the permit.

Table 3. WET Testing requirements for outfall 001 & 005

Effluent Characteristic (1)	**Action Levels**		**Monitoring Requirements**	
	Daily Maximum (2) (3)	Monthly Median (3)	Monitoring Frequency	Sample Type
Acute Toxicity (4) *Pimephales promelas* (Fathead minnow)	N/A	Fail	1x/Year	24-hr Composite
Acute Toxicity (4) *Ceriodaphnia dubia* (Water flea)	N/A	Fail	1x/Year	24-hr Composite
Chronic Toxicity *Pseudokirchneriella subcapitata* (Green algae) (5)	1.6 TUc	1.0 TUc	1x/Year	24-hr Composite
Chronic Toxicity *Pimephales promelas* (Fathead minnow)	1.6 TUc	1.0 TUc	1x/Year	24-hr Composite
Chronic Toxicity *Ceriodaphnia dubia* (Water flea)	1.6 TUc	1.0 TUc	1x/Year	24-hr Composite

Footnotes

1 See Part III for additional requirements for testing and reporting Whole Effluent Toxicity (WET).
2 Since completion of one chronic WET test takes more than 24 hours, the daily maximum is considered to be the highest allowable test result.
3 If chronic toxicity is detected above the Action Levels in this table or an acute test fails, the permittee must perform follow-up testing. See Part III for details.
4 The requirement for an acute test applies when duration of discharge doesn't allow for chronic tests to be conducted. See Part III.
5 Formerly known as *Selenastrum capricornutum or Raphidocelis subcapitata.*

D. Effluent Characterization Testing

1. The permittee shall monitor to characterize the facility's effluent for the parameters listed in Tables 4.a–4.e, whether discharging or not. When the facility discharges, during a reporting period, monitoring for parameters with set limits, assessment levels, or action levels is to be conducted at the frequency indicated in Tables 1.a–1.e and results shall be reported on DMRs. No limits or ALs are established for monitoring requirements set in Tables 4.a–e, but the LOQ must be low enough to allow comparison of the results to the applicable water quality standards (WQS). If a LOQ below the WQS cannot be achieved, then the permittee shall use the method expected to achieve the lowest LOQ, as defined in Appendix A of this permit. Samples are to be representative of any seasonal variation in the discharge.
2. Effluent Characterization testing results shall be reported annually using the form provided by ADEQ. See Part II.B.3.

Table 4.a. Outfalls 001, 005, & 021 — Effluent Characterization Testing—General Chemistry and Microbiology

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Ammonia (as N) (2)(3)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Chemical Oxygen Demand (COD)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Chlorine, Total Residual (TRC) (4)(5)	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Chlorine, Free Available (FAC) (5)(6)	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Dissolved Oxygen (6)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
E. coli(4)	cfu/100 mL	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Nitrogen, Total Kjeldahl (TKN)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Oil and Grease	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
pH (3)(6)	S.U.	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Temperature (3)(6)	°Celsius	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Total Organic Carbon (TOC)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Total Dissolved Solids (TDS)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Total Suspended Solids (TSS)	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete

Footnotes

1 If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 4.a. requirements.

2 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

3 When sampling for ammonia for Outfall 001 & 005 temperature and pH must be determined concurrently and the results recorded on the **Ammonia Data Log** provided in Appendix C. See Part II.B for reporting requirements.

4 cfu = colony forming units; "most probable number" (mpn) is considered equivalent for reporting purposes.

5 Total residual chlorine and free available chlorine shall be monitored within the first hour of discharge after each chlorination event. See Part II.A.5 for specific monitoring requirements for chlorine.

6 Temperature, pH, FAC, TRC, and dissolved oxygen must be measured at the time of sampling and do not require use of a certified laboratory. See Part II.A.5 for methods of analyses for chlorine. Measurements must be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

Table 4.b Outfall 001, 005, and 021 — Effluent Characterization Testing—Selected Metals, Trace Substances

Parameter (1)	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (2)(3)	Sample Type
Antimony	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Arsenic	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Boron	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Beryllium	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Cadmium	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Chromium (4)	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Chromium VI (4)	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Copper	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Iron	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Lead	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Mercury	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Nickel	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Selenium	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Silver	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Thallium	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Zinc	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Hardness	mg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete
Cyanide (as free cyanide)	µg/L	1x/year in years 2026, 2027, 2028 of permit term	Discrete

Footnotes

1 All metals analyses shall be for total recoverable metals, except chromium VI, which is dissolved.

2 If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 4.b. requirements.

3 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

4 If total chromium exceeds 8 µg/L, the permittee must conduct sampling for chromium VI for the remainder of the permit. Otherwise, monitoring for chromium VI is not required.

Table 4.c. Outfall 001 & 005 — Effluent Characterization Testing—Selected Volatile Organic Compounds and trace substances

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)(3)	Sample Type
Hydrogen sulfide (2)	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Acrolein	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Acrylonitrile	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Benzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Bromoform	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)(3)	Sample Type
Carbon tetrachloride	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Chlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Chlorodibromomethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Chloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2-chloroethyl vinyl ether	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Chloroform	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Dichlorobromomethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,1-dichloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,2-dichloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Trans-1,2-dichloroethylene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,1-dichloroethylene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,2-dichloropropane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,3-dichloropropene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Ethylbenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Methyl bromide	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Methyl chloride	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Methylene chloride	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,1,2,2-tetrachloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Tetrachloroethylene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Toluene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,1,1-trichloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,1,2-trichloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Trichloroethylene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Vinyl chloride	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete

Footnotes

1 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

2 The permittee may initially monitor for sulfide instead of hydrogen sulfide. The limit of quantification shall be no higher than 100 µg/L, and any detection of sulfides shall trigger monitoring for hydrogen sulfide for the reminder of the permit term.

3 If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 4.c. requirements.

Table 4.d. Outfall 001 & 005 — Effluent Characterization Testing—Selected Acid Extractable Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)(2)	Sample Type
P-chloro-m-cresol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2-chlorophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,4-dichlorophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,4-dimethylphenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
4,6-dinitro-o-cresol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,4-dinitrophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2-nitrophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
4-nitrophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Pentachlorophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Phenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,4,6- trichlorophenol	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete

Footnotes

1 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

2 If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 4.d. requirements.

Table 4.e. Outfall 001 & 005 — Effluent Characterization Testing—Selected Base Neutral Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)(2)	Sample Type
Acenaphthene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Acenaphthylene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Anthracene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Benzidine	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Benzo(a)anthracene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Benzo(a)pyrene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
3,4 benzofluoranthene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Benzo(ghi)perylene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Benzo(k)fluoranthene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Bis (2-chloroethoxy) methane	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Bis (2-chloroethyl) ether	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Bis(2-chloroisopropyl) ether	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Bis (2-ethylhexyl) phthalate	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
4-bromophenyl phenyl ether	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Butyl benzyl phthalate	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
2-chloronaphthalene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
4-chlorophenyl phenyl ether	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Chrysene	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Di-n-butyl phthalate	µg/L	1x/year in years 2025,2026,2027 of permit term	Discrete
Di-n-octyl phthalate	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Dibenzo(a,h)anthracene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,2-dichlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,3-dichlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,4-dichlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
3,3-dichlorobenzidine	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Diethyl phthalate	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Dimethyl phthalate	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,4-dinitrotoluene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
2,6-dinitrotoluene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,2-diphenylhydrazine	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Fluoranthene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Fluorene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)(2)	Sample Type
Hexachlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Hexachlorobutadiene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Hexachlorocyclopentadiene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Hexachloroethane	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Indeno(1,2,3-cd)pyrene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Isophorone	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Naphthalene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Nitrobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
N-nitrosodi-n-propylamine	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
N-nitrosodimethylamine	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
N-nitrosodiphenylamine	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Phenanthrene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Pyrene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
Polychlorinated biphenyls (PCBs)	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete
1,2,4-trichlorobenzene	µg/L	1x/year in years 2025, 2026, 2027 of permit term	Discrete

Footnotes

1 The Limit of Quantitation (LOQ) must be low enough to allow comparison of the results to the lowest applicable surface water quality standard (SWQS). If a LOQ below the SWQS cannot be achieved the permittee shall use the method expected to achieve the lowest LOQ, per Part II.A.4. Samples are to be representative of seasonal variation in the discharge.

2 If more frequent monitoring of any of these parameters is required by another part of this permit, those sampling results may be used to satisfy Table 4.e. requirements.

E. Surface Water Quality Standards

1. The discharge shall be free from pollutants in amounts or combinations that:
   a. Settle to form bottom deposits that inhibit or prohibit the habitation, growth or propagation of aquatic life;
   b. Cause objectionable odor in the area in which the surface water is located;
   c. Cause off-flavor in aquatic organisms;
   d. Are toxic to humans, animals, plants or other organisms;
   e. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth or propagation of other aquatic life or that impair recreational uses;

2. The discharge shall be free from oil, grease and other pollutants that float as debris, foam, or scum; or that cause a film or iridescent appearance on the surface of the water; or that cause a deposit on a shoreline, bank or aquatic vegetation.

3. The discharge shall not cause an increase in the ambient water temperature of more than 3.0 degrees Celsius.

4. The discharge shall not cause the dissolved oxygen concentration in the receiving water to fall below 6 mg/L from 3 hours after sunrise to sunset and 1 mg/L from sunset to 3 hours after sunrise, unless the percent saturation of oxygen remains equal to or greater than 90%.

5. The discharge shall not cause the receiving water to exceed 80 mg/L for suspended sediment concentration.

PART II. MONITORING AND REPORTING

A. Sample Collection and Analysis

1. Samples taken for the monitoring requirements specified in Part I shall be collected downstream from the last treatment process and prior to discharge.

2. The permittee shall keep a QA Manual on site that describes the sample collection and analyses processes. If the permittee collects samples or conducts sample analyses in house, the permittee shall develop a QA Manual that addresses these activities. If a third party collects and/or analyzes samples on behalf of the permittee, the permittee shall obtain a copy of the applicable QA procedures. The QA Manual shall be available for review by ADEQ upon request. The QA Manual shall be updated as necessary to reflect current conditions, and shall describe the following:
   a. Project Management, including:
      i. Purpose of sample collection and sample frequency;
      ii. When and where samples will be collected;
      iii. How samples will be collected;
      iv. Laboratory(s) that will perform analyses;
      v. Any field tests to be conducted (detail methods and specify equipment, including a description of any needed calibrations); and
      vi. Pollutants or analytes being measured and for each, the permit-specific limits, Assessment Levels (ALs), or thresholds (e.g. the associated detection limits needed).
   b. Sample collection procedures including:
      i. Equipment to be used;
      ii. Type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicates, and equipment or field blanks);

iii. Types, sizes and number of sample bottles needed;
iv. Preservatives and holding times for the samples (see methods under 40 CFR 136 or 9 A.A.C. 14, Article 6 or any condition within this permit that specifies a particular test method); and
v. Chain of Custody procedures.

c. Specify approved analytical method(s) to be used and include;
i. Limits of Detection (LOD) and Limits of Quantitation (LOQs);
ii. Required quality control (QC) results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and
iii. Corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.

d. How the permittee will perform data review; complete DMRs and records used to report results to ADEQ; resolve data quality issues; and identify limitations on the use of the data.

3. Sample collection, preservation and handling shall be performed as described in 40 CFR 136 including the referenced Edition of *Standard Methods for the Examination of Water and Wastewater*, or by procedures referenced in A.R.S. Title 9, Chapter 14 of the Arizona Department of Health Services (ADHS) Laboratory Licensure rules. The permittee shall outline the proper procedures in the QA Manual, and samples taken for this permit must conform to these procedures whether collection and handling is performed directly by the permittee or contracted to a third-party.

4. Analytical requirements
a. The permittee shall use a laboratory licensed by the ADHS Office of Laboratory Licensure and Certification that has demonstrated proficiency within the last 12 months under A.A.C. R9-14-609, for each parameter to be sampled under this permit. However, this requirement does not apply to parameters which require analysis at the time of sample accordance with A.A.C. 36-495.02(A)(3). (These parameters may include flow, dissolved oxygen, pH, temperature, and total residual chlorine.)
b. The permittee must utilize analytical methods specified in this permit. If no test procedure is specified, the permittee shall analyze the pollutant using:
i. A test procedure listed in 40 CFR 136 which is also approved under A.A.C. R9-14-610 and is sufficiently sensitive in accordance with 40 CFR 136.1(c);
ii. An alternative test procedure approved by EPA as provided in 40 CFR 136 and which is also approved under A.A.C. R9-14-610;
iii. A test procedure listed in 40 CFR 136, with modifications allowed by EPA or approved as a method alteration by ADHS under A.A.C. R9-14-610C; or
iv. If no test procedure for a pollutant is available under (5)(b)(i) through (5)(b)(iii) above, any method approved under A.A.C. R9-14-610(B) for wastewater may be used, except the use of field kits is not allowed unless otherwise specified in this permit. If there is no approved wastewater method for a parameter, any other method identified in 9 A.A.C. 14, Article 6 that will achieve appropriate detection and reporting limits may be used for analyses.
c. For results to be considered valid, all analytical work, including those tests conducted by the permittee at the time of sampling (see Part II.A.5.a), shall meet quality control standards specified in the approved methods.
d. The permittee shall use approved analytical methods with a Limit of Quantitation (LOQ) that is lower than the effluent limitations, Assessments Levels, Action Levels, or other water quality

criteria, if any, specified in this permit. If all methods have LOQs higher than the applicable water quality criteria, the Permittee shall use the approved analytical method with the lowest method detection limit (MDL) or minimum level (ML). If a published MDL or ML is not available see Appendix A. Part B. Definitions: Minimum Level for other ways to determine ML.

e. The permittee shall use (and ensure that the laboratory uses) a standard calibration curve when applicable to the method, where the lowest standard point is equal to or less than the LOQ.

5. Chlorine Monitoring - Because of the short holding time for chlorine, samples may be analyzed on-site using Hach Method No. 10014. Other methods are also acceptable for chlorine if the Method has a LOQ lower than discharge limits specified in this permit.

6. Metals Analyses - In accordance with 40 CFR 122.45(c), all effluent metals concentrations, with the exception of chromium VI, shall be measured as "total recoverable metals". Discharge Limits and Assessment Levels in this permit, if any, are for total metals, except for chromium VI for which the levels listed are dissolved.

B. Reporting of Monitoring Results

1. The permittee shall report monitoring results on Discharge Monitoring Report (DMR) to the ADEQ electronic submission portal MyDEQ. The permittee shall submit results of all monitoring required by this permit in a format that will allow direct comparison with the limitations and requirements of this permit. If no discharge occurs during a reporting period, the permittee shall specify "No discharge" on the DMR. The results of all discharge analyses conducted during the monitoring period shall be included in determinations of the monthly average and daily maximums reported on the DMRs if the analyses were by methods specified in Part II.A above, as applicable.

2. DMRs and attachments are to be submitted by the 28th day of the month following the end of a monitoring period, except for Effluent Characterization Testing results, see Part II.B.3 below. For example, if the monitoring period ends January 31st, the permittee shall submit the DMR by February 28th. The permittee shall electronically submit all compliance monitoring data and reports using the myDEQ electronic portal provided by ADEQ, except for Effluent Characterization Testing results, see Part II.B.3 below. The reports required to be electronically submitted include, but are not limited to, the following:
   a. Discharge Monitoring Reports
   b. Whole Effluent Toxicity (WET) reports
   c. Original copies of laboratory results
   d. AZPDES discharge flow records

3. Effluent Characterization Testing results shall be submitted to ADEQ using the Effluent Characterization form provided by ADEQ. The form shall be submitted to ADEQ by emailing azpdes_data@azdeq.gov. The forms are to be submitted on an annual basis by January 28th of each year (i.e., all effluent characterization monitoring required in the calendar year 2024 shall be submitted by January 28, 2025).
   a. Required fields of the form include, but are not limited to, the following:
      i. Sample location;
      ii. Parameter;
      iii. Analytical test method used;
      iv. Data qualifier;
      v. Results;
      vi. Units;

vii. Sampling date;
viii. Published MDL or ML (if a published method-specific ML is not available see Appendix A. Part B. Definitions: Minimum Level);
ix. The laboratory's MDL for the test method computed in accordance with Appendix B of 40 CFR 136;
x. Laboratory reporting limit; and
xi. The laboratory's lowest calibration standard concentration.

4. If requested to participate, the permittee shall submit the results of the annual NPDES DMR/QA Study to ADEQ and ADHS for all laboratories used in monitoring compliance with this permit by December 31st of each year. The permittee shall also conduct any proficiency testing required by the NPDES DMR-QA Study for those parameters listed in the study that the permittee analyzes in house or tests in the field at the time of sampling (these parameters may include pH and total residual chlorine). All results of the NPDES DMR-QA Study shall be submitted to the email and addresses listed below, or submit by any other alternative mode as specified by ADEQ:

Arizona Department of Environmental Quality
Email: AZPDES@azdeq.gov

Arizona Department of Health Services
Attn: Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007

5. For the purposes of reporting, the permittee shall use the Limit of Quantitation.

6. For parameters with Daily Maximum Limits or Daily Maximum Assessment Levels in this permit, the permittee shall review the results of all samples collected during the reporting period and report as outlined in Tables 5 & 6.

7. For parameters with Monthly Average Limits or Monthly Average Assessment Levels in this permit, the permittee shall review the results of all samples collected during the reporting period and report as outlined in Tables 5 & 6.

Table 5. DMR Reporting Requirements for Daily Maximum Limits and Assessment Levels

For Daily Maximum Limits/Assessment Levels	**The Permittee shall Report on the DMR**
When the maximum value of any analytical result is greater than or equal to the LOQ	The maximum value of all analytical results
When the maximum value detected is greater than or equal to the laboratory's LOD but less than the LOQ	NODI (Q)
When the maximum value is less than the laboratory's LOD	NODI (B)

Table 6. DMR Reporting Requirements for Monthly Average Limits / Assessment Levels

For Monthly Average Limits/Assessment Levels		**The Permittee shall Report on the DMR**
If **only one sample** is collected during the reporting period (weekly, monthly, quarterly, annually, etc.) (In this case, the sample result **is also** the weekly or monthly average.)	When the value detected is greater than or equal to the LOQ	The analytical result
	When the value detected is greater than or equal to the laboratory's LOD, but less than the LOQ	NODI (Q)
	When the value is less than the laboratory's LOD	NODI (B)
If more than one sample is collected during the reporting period	All samples collected in the same calendar month must be averaged. • When all results are greater than or equal to the LOQ, all values are averaged • If some results are less than the LOQ, use the LOD value in the averaging • Use '0' for values less than the LOD	The highest monthly average which occurred during the reporting period

8. For all field testing, or if the information below is not included on the laboratory reports required by Part II.B.2, the permittee shall attach a bench sheet or similar documentation to each DMR that includes, for all analytical results during the reporting period the following:
   a. The analytical result;
   b. The number or title of the approved analytical method, preparation and analytical procedure utilized by the field personnel or laboratory, and the LOD and LOQ for the analytical method for the parameter; and
   c. Any applicable data qualifiers using the most current revision of the Arizona Data Qualifiers (available online at: http://www.azdhs.gov).

C. Twenty-four Hour Reporting of Noncompliance

1. The permittee shall orally report to the Emergency Response Unit hotline at (602) 771-2330 any noncompliance that poses imminent threat to the environment or human health within 24 hours from the time the permittee becomes aware of the circumstances. The permittee shall also submit an electronic notification within 5 days of the noncompliance event using the myDEQ electronic portal provided by ADEQ. The permittee shall include in the written notification: a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   The following instances of noncompliance are subject to the 24-hour and 5-day reporting requirements and must be reported orally to the Emergency Response Unit hotline:
   a. Any unanticipated bypass which exceeds any effluent limitations in the permit,
   b. Any upset which exceeds any effluent limitation in the permit, or
   c. Any spill or discharge that poses an imminent threat to human health or the environment.

2. All other instances of noncompliance remain subject to the 24-hour and 5-day reporting requirements, and must call the ADEQ AZPDES hotline at (602) 771-1440. For example, an exceedance of any maximum daily limit for the parameters listed in Part 1.A Table 1 that does not pose an imminent threat to human health or the environment.

D. Monitoring Records

1. The permittee shall retain the following monitoring records:
   a. Date, exact location and time of sampling or measurements performed, preservatives used;
   b. Individual(s) who performed the sampling or measurements;
   c. Date(s) the analyses were performed;
   d. Laboratory(s) which performed the analyses;
   e. Analytical techniques or methods used;
   f. Chain of custody forms;
   g. Any comments, case narrative or summary of results produced by the laboratory. These comments should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether analyses met project requirements and 40 CFR 136. If results include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, or holding times and preservation, these records must also be retained; and
   h. Summary of data interpretation and any corrective action taken by the permittee.

PART III. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. General Conditions

1. The permittee shall conduct chronic (acute or both) toxicity tests on an 24-hour composite samples of the final effluent at the frequencies specified in Part I. [The requirement to conduct chronic toxicity testing is contingent upon the frequency or duration of discharges. See Part III.C.1 below for details. If chronic testing is conducted a separate acute test is not required. However, the acute endpoint shall be reported from the chronic test].

2. Final effluent samples must be taken following all treatment processes, including chlorination and dechlorination, and prior to mixing with the receiving water. The required WET tests must be performed on unmodified samples of final effluent. WET tests conducted on samples that are dechlorinated after collection are not acceptable for compliance with this permit.

3. Chemical testing for all the parameters listed in Parts I.A and B of this permit whose required sample type is a composite shall be performed on a split of one composite sample taken for an acute WET test or a split of at least one of the three composite samples taken for one chronic WET test. For those parameters listed in Parts I.A and B of this permit whose required sample type is discrete, the testing shall be performed on a discrete sample collected concurrently with one sample, discrete or composite, collected for an acute or chronic WET test.

4. Definitions related to toxicity are found in Appendix A.

B. Acute Toxicity

1. If chronic toxicity testing is not required per Part III.C.1, the permittee shall conduct 96-hour acute toxicity tests with renewal at 48 hours on two species; *Ceriodaphnia dubia* and *Pimephales promelas* using 100% effluent and a control. The acute test may be completed as a non-renewal

48-hour acute test when a second sample for renewal at 48 hours cannot be taken due to a cessation of the discharge after an acute test has been initiated.

2. The permittee must follow the USEPA 5th edition manual, "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012) for all acute toxicity testing. The presence of chronic toxicity shall be estimated as specified in the method for each species tested.

3. The acute toxicity action level is any failing test result. The test fails if survival in 100% effluent is less than 90%, and is significantly different from control survival (which must be 90% or greater), as determined by hypothesis testing. Section 11.3 of the acute manual referenced above must be followed to determine Pass or Fail. Any result of Fail requires follow-up testing per Part III, Section E.

4. The permittee shall report results as Pass or Fail.

C. Chronic Toxicity

1. The permittee shall conduct short-term chronic toxicity tests on three species: the waterflea, *Ceriodaphnia dubia* (survival and reproduction test); the fathead minnow, *Pimephales promelas* (larval survival and growth test); and the green alga, *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata)* (growth test). Since completion of the chronic WET test for *Ceriodaphnia dubia* and *Pimephales promelas* requires a minimum of three samples be taken for renewals, the chronic WET test will not be required during any given monitoring period in which the discharge(s) does not occur over seven consecutive calendar days and is (are) not repeated more frequently than every thirty days, except as specified in Part I.D (chronic WET testing for effluent characterization is required whether discharging or not). The discharge does not have to be continuous to fall under this requirement.

2. The permittee must follow the USEPA 4th edition manual, "*Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821-R-02-013) for all chronic compliance toxicity testing.

3. The chronic toxicity action levels are any one test result greater than 1.6 TUc or any calculated monthly median value greater than 1.0 TUc. If chronic toxicity is detected above these values, follow-up testing is required per Part III, Section E. A chronic toxicity unit (TUc) shall be calculated as TUc = 100/NOEC.

4. The chronic WET test shall be conducted using a series of five dilutions and a control. The following dilution series must be used: 12.5, 25, 50, 75, and 100% effluent.

D. Quality Assurance

1. Effluent samples must be maintained between 0 and 6°C from collection until utilized in the toxicity testing procedure. When a composite sample is required, each aliquot making up the composite must be chilled after collection and throughout the compositing period. The single allowable exception is when a grab sample is delivered to the performing laboratory for test initiation no later than 4 hours following the time of collection.

2. Control and dilution water should be receiving water or lab water as appropriate, as described in the 40 CFR Part 136.3 approved method. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

3. Reference toxicity tests (a check of the laboratory and test organisms' performance) shall be conducted at least 1 time in a calendar month for each toxicity test method conducted in the laboratory during that month. Additionally, any time the laboratory changes its source of test organisms, a reference toxicity test must be conducted before or in conjunction with the first WET test performed using the organisms from the newer source. Reference toxicant testing must be conducted using the same test conditions as the effluent toxicity tests (i.e., same test duration, etc.).

4. If either the reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the 40 CFR Part 136.3 approved WET methods, then the permittee must re-sample and re-test within 14 days of receipt of the test results. The re-sampling and re-testing requirements include laboratory induced error in performing the test method.

5. The chronic reference toxicant and effluent tests must meet the upper and lower bounds on test sensitivity as determined by calculating the percent minimum significant difference (PMSD) for each test result. The test sensitivity bound is specified for each test method (see Section 10, Table 6 in EPA/821-R-02-013). There are five possible outcomes based on the PMSD result.
    a. *Unqualified Pass*- The test's PMSD is within bounds and there is no significant difference between the means for the control and the effluent. The regulatory authority would conclude that there is no toxicity.
    b. *Unqualified Fail*- The test's PMSD is larger than the lower bound (but not greater than the upper bound) in Table 6 and there is a significant difference between the means for the control and the effluent. The regulatory authority would conclude that there is toxicity.
    c. *No Significant Difference in Test Controls* - The test's PMSD exceeds the upper bound in Table 6 and there is no significant difference between the means for the control and the effluent. The test is considered invalid. An effluent sample must be collected and another toxicity test must be conducted within 14 days of receipt of the test results.
    d. *Significant Difference in Test Controls* - The test's PMSD exceeds the upper bound in Table 6 and there is a significant difference between the means for the control and the effluent. The test is considered valid. The regulatory authority will conclude that there is toxicity.
    e. *Very Small but Significant Difference*- The relative difference between the means for the control and effluent is smaller than the lower bound in Table 6 and this difference is statistically significant. The test is acceptable and the NOEC should be determined.

E. Toxicity Identification Evaluation (TIE)/Toxicity Reduction Evaluation (TRE) Process

1. If (acute and/or chronic) toxicity is detected above a WET action level or Limit specified in this permit and the source of toxicity is known (for instance, a temporary plant upset), the permittee shall conduct one follow-up test within two weeks of receipt of the sample results that exceeded the action level. The permittee shall use the same test and species as the failed toxicity test. For intermittent discharges, the follow-up test shall be conducted whether discharging or not. If toxicity is detected in the follow-up, the permittee shall immediately begin developing a TRE plan and submit the plan to ADEQ for review and approval within 30 days after receipt of the toxic

result. Requirements for the development of a TRE are listed in paragraph 3 below. The permittee must implement the TRE plan as approved and directed by ADEQ.

2. If (acute and/or chronic) toxicity is detected above an action level or Limit specified in this permit and the source of toxicity is unknown, the permittee shall begin additional toxicity monitoring within two weeks of receipt of the sample results that exceeded the action level. The permittee shall conduct one WET test approximately every other week until either a test exceeds an action level (or limit) or four tests have been completed. The follow-up tests must use the same test and species as the failed toxicity test. For intermittent discharges, the first follow-up test shall be conducted whether discharging or not; the subsequent three follow-up tests shall be conducted during the next three discharge events.
    a. If none of the four tests exceed a WET action level or limit, then the permittee may return to the routine WET testing frequency specified in this permit.
    b. If a WET action level or limit is exceeded in any of the additional tests, the permittee shall immediately begin developing a TRE plan and submit the plan to ADEQ for review and approval within 30 days after receipt of the toxic result. Requirements for the development of a TRE are listed in subsection 3, below. The permittee must implement the TRE plan as approved and directed by ADEQ.

3. The permittee shall use the EPA guidance manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, 1999 *(*EPA/833/B-99/002) in preparing a TRE plan. The TRE plan shall include, at a minimum, the following:
    a. Further actions to investigate and identify the causes of toxicity, if unknown. The permittee may initiate a TIE as part of the TRE process using the following EPA manuals as guidance: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I,* 1992 (EPA/600/6-91/005F); *Methods for Aquatic Toxicity Identification Evaluations: Phase I, Toxicity Characterization Procedures*, 2nd Edition, 1991 (EPA/600/6-91/003); *Methods for Aquatic Toxicity Identification Evaluations: Phase II, Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity,* 1993 (EPA/600/R-92/080); and *Methods for Aquatic Toxicity Identification Evaluations: Phase III, Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity,* 1993 (EPA/600/R-92/081).

    b. Action the permittee will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

    c. A schedule for implementing these actions.

F. WET Reporting

1. The permittee shall report chronic toxicity results on DMRs in Chronic Toxicity Units (TUc). The TUc for DMR reporting shall be calculated as TUc= 100/NOEC.

2. In addition to reporting WET results on DMRs, the permittee shall submit a copy of the full lab report(s) for all WET testing conducted during the monitoring period covered by the DMR. The lab report should report TUc as 100/NOEC **and** as $100/IC_{25}$. If the lab report does not contain any of the following items, then these must also be supplied in a separate attachment to the report: 1) sample collection and test initiation dates, 2) the results of the effluent analyses for all parameters required to be tested concurrently with WET testing as defined in Part I.B, Table 3. and Part III.A. &

B. of this permit, and 3) copies of completed "AZPDES Discharge Flow Records" for the months in the WET monitoring period.

3. WET lab reports and any required additional attachments shall be submitted to ADEQ by the 28th day of the month following the end of the WET monitoring period, or upon request.

PART IV. SPECIAL CONDITIONS

A. Stormwater Requirements

The permittee shall control discharges of stormwater from the site as necessary to not cause or contribute to an exceedance of an applicable surface water quality standard in the protected surface waters. If at any time the permittee becomes aware, or ADEQ determines, that the site's discharge causes or contributes to an exceedance of an applicable surface water quality standard, the permittee shall take corrective action as required in IV.A.3.

1. Stormwater Pollution Prevention Plan (SWPPP)

a. The permittee shall review the existing SWPPP and revise it as necessary to ensure that they fully and accurately address all the following provisions. Any updates or revisions needed shall be completed within 90 days of the effective date of this permit.

b. At a minimum the SWPPP shall contain and identify the following requirements:

i. Identify individuals at SRP that are members of a stormwater Pollution Prevention Team who are responsible for assisting the facility management implementation, maintenance, and revision of the SWPPP. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's SWPPP.

ii. A site description, including a discussion of industrial activities that occur at the site;

iii. A generalized location map (e.g. a USGS quadrangle map) with all protected surface water(s) receiving stormwater discharges from the facility identified;

iv. Summary of pollutant sources which may reasonably be expected to add significant amounts of pollutants to stormwater discharges or which may result in the discharge of pollutants during dry weather from the facility. These shall include all activities and exposed materials which may potentially be significant pollutant sources, including from the following activities: loading and unloading operations; outdoor storage; manufacturing, or processing activities; significant dust or particulate generating processes; and onsite waste disposal practices. The description shall specifically list any significant potential source of pollutants at the site and for each potential source, any pollutant or pollutant parameter (e.g., total suspended solids, copper, etc.) of concern shall be identified.

v. An inventory of the types of materials handled at the site that may be exposed to precipitation. This shall include a description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to stormwater for the past three (3) years; method and location of onsite storage and/or disposal; materials management practices employed to minimize contact of materials with stormwater runoff for the past three (3) years; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

vi. List of significant spills and leaks of pollutants that occurred for the past three (3) years;
vii. Document the occurrence of unauthorized non-stormwater discharges;
viii. A description of control measures that will be used to ensure compliance with the requirements in Part IV.A.2.
ix. The schedule, practices and procedures for the following: good housekeeping, control measure maintenance / repair measures, spill prevention/ response, erosion/ sediment controls, and type and frequency of employee training (See Part IV.A.2);
x. The schedule and documentation procedures utilized for site inspections and visual assessment monitoring;
xi. A description of stormwater monitoring and sampling procedures, including outfall identification and describe any exemptions to monitoring;
xii. A Sampling and Analysis Plan (see Part IV.A.8.), if required, including previous sampling results for the previous permit term; and
xiii. Signature requirements (See Appendix D).

c. Site Map: The SWPPP must include a legible site map (or maps) completed to scale, that identifies the following:
i. Boundaries of the property;
ii. Designation of area(s) associated with industrial activities;
iii. Identification of adjacent properties;
iv. Directions of stormwater flow for areas of the site that generate stormwater discharges with a reasonable potential to contain pollutants (e.g. topographic map or arrows as necessary to depict stormwater flow direction;
v. Locations of all stormwater conveyances including ditches, pipes, and swales;
vi. Locations of major structural stormwater control measures;
vii. Locations of protected surface waters receiving the site's discharges and any special waters clearly labeled within 2.5 miles of the site (can be identified on a generalized site map);
viii. Locations where the site's stormwater discharges to a regulated MS4 (where applicable);
ix. Locations where significant spills or leaks have occurred in the past three years;
x. Locations of outfalls with a unique identification code for each feature;
xi. An approximate outline of the areas draining to each outfall;
xii. Identification of which outfalls are considered sampling points;
xiii. Identification of which outfalls are being treated as substantially identical outfalls;
xiv. Locations of outfalls that are inactive or no longer used as outfalls, if practicable;
xv. Identification of all outfalls that include allowable non-stormwater discharges under Part I.A.
xvi. Location of on-site drywell(s) and their registration number(s);
xvii. Sources of run-on to the site from adjacent property that may contain pollutants;
xviii. Locations of the following activities and features that are exposed to stormwater with the potential to discharge pollutants, including but not limited to: 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/storage areas; transfer areas for bulk materials, and; access roads/rail lines used or traveled by carriers of raw

materials, manufactured products, waste material, or by-products used or created by the site.

xix. Drainage Site Map: Documenting 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.

xx. Housekeeping: The permittee shall document the good housekeeping measures in Part IV.A.2.h. implemented to meet the effluent limits in Part I of this permit.

2. Measures and Controls:

The permittee shall develop and implement effective stormwater management controls for all identified potential sources of pollution. For each identified potential source, the SWPPP shall describe the nature of the potential discharges, including the types of pollutants likely to be present in each. For each identified potential source, the SWPPP shall describe either structural and/or non-structural controls (BMPs) that shall be designed and implemented to minimize these releases, including:

a. The selection, design, and installation of these control measures must be in accordance with good engineering practices and follow manufacturers' specifications. Any deviations from such specifications must be justified and the justification shall be maintained and documented in the SWPPP.

b. If the site's control measures are not effective, the permittee shall modify and/or add additional control measures to meet the requirements of this permit.

c. The permittee shall assess the type and quantity of pollutants likely to discharge in stormwater or allowable non-stormwater from the site when designing and implementing control measures. At a minimum, the permittee shall consider the following when selecting and designing control measures:

i. Preventing stormwater from coming into contact with pollutants is generally more effective, and less costly, than trying to remove pollutants from stormwater;

ii. Using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in the site's stormwater discharge;

iii. Assessing the type and quantity of pollutants, including their potential to impact the protected surface water(s) quality, is necessary in order to design effective control measures that achieve permit limits;

iv. Minimizing impervious areas at the site 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 groundwater contamination;

v. Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;

vi. Using containment to intercept stormwater flows before they leave the site, such as directing flows to non-discharging areas (pits) or installing runoff containment; 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 in order to minimize pollutant discharges by implementing measures.

vii. Conserving and/or restoring of riparian buffers help protect streams from stormwater runoff and improve water quality; and

viii. Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

d. The permittee shall maintain all control measures that are used to achieve effluent limits in this permit in effective operating conditions, as well as all industrial equipment and systems, in order to minimize pollutants in stormwater discharge. This includes measures such as the following:

i. Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, plant equipment and systems that could fail and result in contamination of stormwater.

ii. Maintaining non-structural control measures (e.g., keep spill response supplies available, personnel appropriately trained); and

iii. Cleaning catch basins.

e. If control measures are in need of repair or replacement, the permittee shall make any necessary maintenance changes as soon as practicable. All reasonable steps shall be taken to minimize the discharge of pollutants until the final repair is completed. This shall include cleaning up any contaminated surfaces so that the material will not be discharged in subsequent storm events. Final repairs or replacement of stormwater controls should be completed as soon as feasible but no later than 14 calendar days following discovery, or before the next measurable storm event, whichever is sooner. If necessary changes cannot be implemented within the specified timeframe(s), the permittee shall document within 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 permit requirements, should a runoff event occur while a control measure is off-line (either in part or in whole).

f. 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 to minimize the pollutant discharges by implementing measures such as, the following:

i. Locating industrial materials and activities inside or protect with storm resistant shelter, as practicable;

ii. Using grading, berming or curbing to prevent runoff of contaminated flows, and divert clean stormwater around industrial materials and activities;

iii. Locating materials, equipment, and activities so that potential leaks or spills are contained or able to be contained or diverted before discharging off-site;

iv. Using spill/overflow protection;

v. Clean up spills and leaks promptly using dry methods (e.g. absorbent's);

vi. Covering fueling area(s) or minimize stormwater run-on/runoff to fueling area(s);

vii. Store leaky vehicles and equipment indoors, or if stored outdoors, use drip pans and absorbents;

viii. Draining fluids from equipment and vehicles that will be decommissioned, and for any equipment and vehicles that will remain unused for extended periods of time;

ix. Performing all vehicle and /or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and

x. Ensuring that all wash water not meeting the requirements in Permit, drains to a proper collection system (i.e., not the stormwater drainage system).

In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult EPA's internet-based resources relating to stormwater runoff management and green stormwater infrastructure.

g. The permittee shall minimize generation of dust and off-site tracking of raw, final, or waste materials in order to minimize pollutant discharges.

h. General Good Housekeeping Requirements:
The permittee shall implement good housekeeping measures for all exposed areas that are potential sources of pollutants. Such measures may include the following:

i. Sweep or vacuum at regular intervals;

ii. Keeping materials orderly and labeled;

iii. Storing materials in appropriate containers;

iv. Cleaning up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;

v. Using drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;

vi. Keep dumpster lids closed when not in use, where feasible. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment, treatment) when needed.

vii. Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged.

i. Industry Specific Good Housekeeping Requirements: The following areas must be specifically addressed:

i. Fugitive Dust Emissions: The permittee shall minimize generation of dust and off-site tracking of raw, final, or waste materials to minimize pollutants. The permittee shall implement effective controls to minimize the tracking of 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.

ii. 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.

iii. 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).

iv. Chemical Loading and Unloading Areas: 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.

v. Miscellaneous Loading/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.

vi. 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.

vii. 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 Spill Prevention Control and Countermeasures (SPCC).

viii. 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 site's SPCC plan if applicable. As part of the routine site 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.

ix. 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.

x. 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.

xi. 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.

xii. Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse: The permittee shall implement effective controls to minimize the potential for contamination of runoff from these areas.

xiii. Vehicle Maintenance: The permittee shall implement measures that prevent or minimize the potential for contamination from vehicle maintenance activities, if performed onsite.

xiv. 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.

xv. Material Storage Areas: The permittee shall implement measures that prevent or minimize the potential for contamination from material storage areas, including areas used for temporary storage of miscellaneous products, and construction materials.

xvi. Sediment and Erosion Controls: The permittee shall minimize on-site erosion and sedimentation in order to minimize pollutant discharges. The permittee shall identify areas which due to topography, activities, or other factors have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion. In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult EPA's internet-based resources relating to Stormwater BMPs for erosion and sedimentation. If the permittee uses polymers and/or other chemical treatments as part of the controls, the permittee must identify the polymers and/or chemicals used and the purpose in the SWPPP. The permittee must include the following areas in the assessment:

- Loading and unloading areas;
- Access roads;
- Material handling areas;
- Storage areas; and
- Any other areas where heavy equipment and vehicle use is prevalent.

j. Preventative Maintenance: The permittee shall implement a preventative maintenance program that includes timely evaluation and maintenance of stormwater management devices, such as cleaning oil/water separators, catch basins. The permittee should routinely evaluate and test facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and shall ensure appropriate maintenance of such equipment and systems.

k. Spill Response Procedures: The permittee shall implement specific material handling procedures, storage requirements, and use of equipment such as diversion valves, if applicable, to prevent spills.

i. 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 in order to minimize pollutant discharges.

ii. The permittee shall describe procedures for cleaning up spills for cleaning spills and train appropriate personnel to implement these procedures. The permittee shall ensure that equipment necessary to implement a cleanup is available to personnel.

l. Management of Stormwater Runoff: The permittee shall minimize the discharge of pollutants from the site by implementing control measures. In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to

consult EPA's internet-based resources relating to stormwater runoff management and green stormwater infrastructure. These measures may include, but are not limited to:

i. Diverting clean stormwater around industrial materials and activities;
ii. Using Infiltration, reuse, containment and reduction to impacted runoff, or
iii. Treating and/or recycling stormwater runoff collected.

3. Corrective Actions

a. The permittee shall control discharges from the site as necessary to not cause or contribute to an exceedance of an applicable surface water quality standard in a protected surface water. If at any time, the permittee becomes aware of, or ADEQ determines, that the site's discharge causes or contributes to an exceedance of an applicable surface water quality standard, the permittee shall take the corrective action as described under this Section.

b. The following conditions require corrective action:
   i. An unauthorized discharge (e.g., non-stormwater discharge not authorized by this or another AZPDES permit to a protected surface water or to a regulated MS4.);
   ii. The permittee becomes aware, or ADEQ determines, that a discharge from the site causes or contributes to an exceedance of applicable surface water quality standard(s);

c. The permittee shall review the selection, design, installation, and implementation of a site's control measures and revise as necessary to ensure compliance with this permit.

d. A routine analytical monitoring exceedance (i.e., above an action level) is not considered a permit violation and does not require a corrective action, if the permittee evaluates and revises the controls measures as necessary and submits the necessary reporting (Part II.C.).

e. The permittee shall take immediate actions to mitigate any condition(s) identified above and document the discovery within 72 hours of discovery, including the following:
   i. Identification of the condition triggering the need for corrective action review;
   ii. Description of the problem/incident including material type and amount;
   iii. Date/time the problem was identified;
   iv. The location of the incident;
   v. The cause of the spill, leak, other release or sampling exceedance, if applicable;
   vi. The outfall name(s)/ locations effected; and
   vii. The affected protected surface water.

f. Within 14 days of discovery (or before the next storm event if possible, whichever is sooner) the permittee shall complete and document the following:
   i. A summary of corrective action taken or to be taken, including modifications to control measures, in order to minimize or prevent the reoccurrence of a discharge of a pollutant(s) or prevent further exceedance(s);
   ii. Identify and describe SWPPP modification(s) that are required as a result of this discovery and/or corrective actions;
   iii. Provide date corrective action initiated or will be initiated;
   iv. Provide date corrective action completed or expected to be completed;
   v. Results of any analytical monitoring that prompted corrective action, including any subsequent sampling results, if available;
   vi. Describe any permit contingency actions that will be required;
   vii. If corrective actions cannot be implemented within the specified timeframe(s), the permittee shall document the reasons for the delay, provide an implementation

schedule for completing the necessary changes, including any back-up practices in place to ensure compliance with applicable effluent limitations, should a runoff event occur while a control measure is off-line;

viii. If no corrective action is needed, describe the basis for that determination;
ix. Provide the date and the outcome of the last four (4) routine site inspections; and
x. A signed certified statement in accordance with Appendix D.

g. Any corrective action documentation taken pursuant to this section shall be kept with the site's stormwater pollution prevention plan (SWPPP).

4. **Inspections**

a. During normal site operating hours, the permittee must conduct monthly routine inspections and visually examine areas of the site covered by this permit, including the following:
   i. Areas where industrial materials or activities are exposed to stormwater with the potential to discharge;
   ii. Areas that are identified as potential pollutant sources in the SWPPP;
   iii. Locations where spills and leaks from industrial equipment, drums, tanks and other containers that can occur or has occurred in the past three years;
   iv. Areas where tracking or blowing of sediment, trash, raw, final or waste materials is or has occurred from areas of no exposure to exposed areas, including locations where vehicles enter or exit the site;
   v. Discharge points;
   vi. Loading and unloading areas;
   vii. Switchyards;
   viii. Fueling areas;
   ix. Bulk storage areas;
   x. Ash handling areas;
   xi. Areas adjacent to disposal ponds and landfills;
   xii. Maintenance areas;
   xiii. Liquid storage tanks; and
   xiv. Long-term and short-term storage areas.

b. A qualified person(s) shall conduct routine site inspections. A member of the Stormwater Pollution Prevention Team shall conduct or participate in the routine site inspection.

c. The permittee shall conduct at least one of the routine site inspections each calendar year during a storm event (see Appendix A)to determine that the control measures are functioning correctly. If there is no measurable storm event(s) or discharge during a calendar year, the permittee shall document the inability to perform a routine inspection when a discharge is occurring.

d. The permittee shall document the findings of each routine site inspection performed and maintain this documentation in the SWPPP. Inspections shall be submitted to ADEQ upon request. The minimum documentation for each routine inspection shall include:
   i. The inspection date and time;
   ii. Name(s) and signature(s) of the inspector;
   iii. Weather information;
   iv. All observations relating to the implementation of stormwater control measures at the site including:
      - A description of any discharges occurring at the time of the inspection;
      - Any previously identified discharges from and/or pollutants at the site;

- Any evidence of, or potential for, previously unidentified pollutants entering the drainage system; and
- Observations regarding the physical condition of and around all outfalls, including any flow dissipation devices, and evidence of pollutants in discharges and/or to the protected surface water.

v. Any control measures needing repairs or maintenance;
vi. Any failed control measures that need replacement;
vii. Any additional control measures needed to comply with the permit requirements; and
viii. Any required revisions to the SWPPP resulting from the inspection.

e. Any corrective action required as a result of a routine inspection must be performed consistent with Part IV.A.3.

5. Comprehensive Site Evaluation

Qualified personnel shall conduct comprehensive site evaluations at least annually that address the following:

a. Areas contributing to a stormwater discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented or whether additional control measures are needed. Structural stormwater management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the SWPPP shall be observed to ensure that they are operating correctly. A visual evaluation of all equipment needed to implement the plan, including spill response ones, shall be made.
b. Based on the results of the evaluation, SRP shall revise the description of potential pollutant sources (Description of Potential Pollutant Sources) and pollution prevention measures and controls identified in the SWPPP (Measures and Controls) as appropriate within 2 weeks after the evaluation. The permittee must implement any changes to the plan within 12 weeks after the evaluation.
c. Records of the comprehensive site evaluations must be documented in the SWPPP.

6. 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 site's Stormwater Pollution Prevention Team. Training must cover both the specific control measures and the monitoring, inspection, planning, reporting, and documentation requirements described in this permit. The permittee must ensure the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements, for the following:

a. Personnel who are responsible for the design, installation, maintenance, and/or repair of control measures (including pollution prevention measures);
b. Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges;
c. Personnel who are responsible for taking and documenting corrective actions as required in Part IV.A.3;

d. Personnel who are responsible for conducting and documenting monitoring and inspections as required in Parts IV.A.4 and 8.
e. Personnel must be trained in the following areas, if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):
f. An overview of what is in the SWPPP;
g. Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
h. The location of all controls on the site required by this permit, and how they are to be maintained;
i. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
j. When and how to conduct inspections, record applicable findings, and take corrective actions as required by Part IV.A.3.

7. Non-Stormwater Discharges (other than authorized discharges from Outfalls 001, 005 or 021)

a. The permittee shall test or evaluate for the presence of non-stormwater discharges at the facility and shall include an Comprehensive Site Evaluation in the SWPPP. The evaluation shall identify any potential significant sources of non-stormwater at the site; and describe the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test.
b. Except for flows from firefighting activities, SRP must identify and describe in the SWPPP, any sources of non-storm water that are combined with on-site stormwater. The SWPPP must ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.
c. If SRP is unable to provide the certification required (testing for non-storm water discharges), SRP must notify ADEQ and include that notice in the SWPPP. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges; and, why adequate tests were not feasible. Non-storm water discharges to waters of the United States which are not authorized by an AZPDES permit are unlawful, and must be terminated.

8. Monitoring and Reporting:

Discharge monitoring and reporting of stormwater discharges from Outfalls 005 and 021 (which may be comingled with low volume wastewater) are covered under Part I. and Part II. of the Permit.

B. Chemical Additives

a. Chemical Use

i. Chemicals added for cooling tower maintenance shall have no detectable amount of the 126 priority pollutants, except for zinc and chromium as specified in this permit.
ii. The permittee shall maintain a chemical use log at the facility of all chemical additives added to the water treatment systems and cooling tower that are eventually discharged from the facility. The chemical use log shall be made available to the Department upon request. The log shall include a list of the chemicals used, the use of

each chemical, the location of use of each chemical, and the approximate quantity of chemical used over a given time period.

iii. The permittee shall notify ADEQ in writing of any additional new chemical additive within one business day of its use in the water treatment system or cooling tower. The notification shall include the name of the chemical additive, the reason for its use, and the approximate quantity to be used over a given time.

b. Discharge Prohibitions

a. Discharge of any product registered under the Federal Insecticide, Fungicide and Rodenticide Act to any waste stream which may ultimately be released to lakes, rivers, streams or other waters of the United States is prohibited unless specifically authorized elsewhere in this permit.

b. Discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

c. **Microbiological Control**

WET testing must be conducted after use of microbiological control agents if chemical is discharged from Outfall 001 or 005. These tests may be used as annual WET tests required in Table 3. If no toxicity is detected after four WET tests following the use of a specific chemicals, WET testing after that chemical use may be discontinued after notifying the Department.

d. Reporting

By January 31st of each year, the permittee shall submit to ADEQ, an annual summary of the quantities of all chemicals, listed by both chemical and trade names, which have been used for cooling, water treatment, descaling and/or microbiological control at the facility in the past calendar year. The report shall be submitted to AZPDES@azdeq.gov.

C. Reopener

1. This permit may be modified per the provisions of A.A.C. R18-9-B906, and R18-9-A905 which incorporates 40 CFR Part 122. This permit may be reopened based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if Assessment Levels in this permit are exceeded.

Appendix A. Part A: Acronyms

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
EQ	Exceptional Quality (biosolids)
AZPDES	Arizona Pollutant Discharge Elimination System
A.R.S.	Arizona Revised Statutes
CFR	Code of Federal Regulations
CFU	Colony Forming Units
Director	The Director of ADEQ or any authorized representative thereof
DMR	Discharge Monitoring Report
EPA	The U.S. Environmental Protection Agency
kg/day	Kilograms per day
MGD	Million Gallons per Day
mg/L	Milligrams per Liter, also equal to parts per million (ppm)
MPN	Most Probable Number
NPDES	National Pollutant Discharge Elimination System
PFU	Plaque-Forming Unit
QA	Quality Assurance
SSU	Sewage Sludge Unit
TBEL	Technology-based Effluent Limitation
µg/L	Micrograms per Liter, also equal to parts per billion (ppb)
WQBEL	Water quality-based Effluent Limitation

Appendix A. Part B: Definitions

Active Sewage Sludge Unit	A sewage sludge unit that has not closed.
Acute Toxicity Test	A test used to determine the concentration of effluent or ambient waters that produces an adverse effect (lethality) on a group of test organisms during a short-term exposure 9e.g., 24, 48, or 96 hours). Acute toxicity is measured using statistical procedures (e.g., point estimate techniques or hypothesis testing) and is reported as PASS/FAIL or in TUas, where TUa = $100LC_{50}$.
Acute-to Chronic Ratio (ACR)	Is the ratio of the acute toxicity of an effluent or a toxicant to its chronic toxicity. It is used as a factor for estimating chronic toxicity on the basis of acute toxicity data, or for estimating acute toxicity on the basis of chronic toxicity data.
Agronomic Rate	The whole biosolids application rate on a dry-weight basis that meets the following conditions: a.) The amount of nitrogen needed by existing vegetation or a planned or actual crop has been provided, and b.) The amount of nitrogen that passes below the root zone of the crop or vegetation is minimized.
Ammonia Impact Ratio (AIR)	The ratio of the concentration of ammonia in the effluent and the calculated ammonia standard as determined by the use of effluent/receiving water pH and temperature.
Annual Pollutant Loading Rate	The maximum amount of a pollutant that can be applied to an acre or hectare of land during a 365-day period.
Applicator	A person who arranges for and controls the site-specific land application of biosolids in Arizona.

Assessment Levels (AL)	A trigger, altering the permitting authority when there is cause for re-evaluation of reasonable potential (RP) for exceeding a water quality standard, which may result in new permit limitations. An exceedance of an AL is not a permit violation.
Base Flood	A flood that has a one percent chance of occurring in any given year (or a flood that is likely to occur once in 100 years).
Chronic Toxicity Test	A test in which sublethal effects (e.g., reduced growth or reproduction) are measured in addition to lethality. Chronic toxicity is measured as TUc = 100/NOEC or TUc = 100/ECp or 100/ICp. The ICp and ECp value should be the approximate equivalent of the NOEC calculated by hypothesis testing for each test method.
Composite Sample	A sample that is formed by combining a series of individual, discrete samples of specific volumes at specified intervals. Composite samples characterize the quality of a discharge over a given period of time. Although, composite samples can be time-weighted or flow-weighted, this permit requires the collection of flow-proportional composite samples. This means that samples are collected and combined using aliquots in proportion to flow rather than time. Also see Flow-Proportional Composite.
Cumulative Pollutant Loading Rate	The maximum amount of a pollutant applied to land application site.
Daily Maximum Concentration Limit	The maximum allowable discharge of a pollutant in a calendar day as measured on any single discrete sample or composite sample.
Daily Maximum Mass Limit	The maximum allowable total mass of a pollutant discharged in a calendar day.
Daily Mass Loading	The mass loading reported against the daily maximum mass limit. The measured daily pollutant discharges by mass. Use the flow observed on the day of sample collection. If there are multiple samples collected within the monitoring period, calculate the daily mass loading as above for each day sampling occurred. Report the highest mass value.
Discrete or Grab Sample	An individual sample of at least 100 mL collected from a single location, or over a period of time not exceeding 15 minutes.
Dry-Weight Basis	The weight of biosolids calculated after the material has been dried at 105 ˚C until reaching a constant mass.
Effect Concentration Point (ECP)	A point estimate of the toxicant (or effluent) concentration that would cause an observable adverse effect (e.g., survival or fertilization) in a given percent of the test organisms, calculated from a continuous model (e.g., USEPA Probit Model).
Effluent Dependent Water	Effluent Dependent Water means a surface water or portion of a surface water that consists of a point source discharge without which the surface water would be ephemeral. An effluent dependent water may be perennial or intermittent depending on the volume and frequency of the point source discharge of treated wastewater.
Ephemeral Water	Ephemeral water means a surface water or portion of surface water that flows or pools only in direct response to precipitation.
Flow Proportional Composite Sample	A sample that combines discrete samples collected over time, based on the flow of the discharge being sampled. There are two methods used to collect this type of sample. One collects a constant

	sample volume at time intervals that vary based on stream flow. The other collects discrete samples that are proportioned into aliquots of varying volumes based on stream flow, at constant time intervals (i.e. flow-weighted composite sample).
Hardness	The sum of the calcium and magnesium concentrations, expressed as calcium carbonate ($CACO_3$) in milligrams per liter.
Hypothesis Testing	A statistical technique (e.g., Dunnett's test) that determines what concentration is statistically different from the control. Endpoints determined from hypothesis testing are NOEC and LOEC. The two hypotheses commonly tested in WET are: Null hypothesis (H_0): The effluent is not toxic. Alternative hypothesis (H_a): The effluent is toxic.
Impaired Water	Impaired water means a protected surface water for which credible scientific data exists that satisfies the requirements of section 49-232, and that, in the case of waters of the U.S., demonstrate that the water should be identified pursuant to 33 United States Code section 1313(d) and the regulations implementing that statute
Inhibition Concentration (IC)	A point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., USEPA Interpolation Method). IC25 is a point estimate of the toxicant concentration that would cause a 25% reduction in a non-lethal biological measurement.
Intermittent Water	Intermittent water means a surface water or portion of surface water that flows continuously during certain times of the year and more than in direct response to precipitation, such as when it receives water from a spring, elevated groundwater table or another surface source such as melting snowpack.
Land Treatment Facility	An operation designed to treat and improve the quality of waste, wastewater, or both, by placement wholly or in part on the land surface to perform part or all of the treatment. A land treatment facility includes a facility that performs biosolids drying, processing, or composting, but not land application performed in compliance with 18 A.A.C. 9, Article 10.
LC50	The toxicant (or effluent) concentration that would cause death in 50 percent of the test organisms.
Limit of Detection (LOD)	An analyte and matrix-specific estimate of the minimum amount of a substance that the analytical process can reliably detect with a 99% confidence level that the analyte concentration is distinguishable from the method blank results as defined by the specific approved laboratory method. This may be laboratory dependent and is developed according to A.A.C. R9-14-615(C)(7). ADEQ considers the following terms to be synonymous: "detection limit," "method detection limit," and "limit of detection."
Limit of Quantitation (LOQ)	The minimum levels, concentrations, or quantities of a target variable such as an analyte that can be reported with a specific degree of confidence. The calibration point shall be at or below the LOQ. The LOQ is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all of the method-

	specified sample weights, volumes, and processing steps have been followed. ADEQ is considering the following terms related to analytical method sensitivity to be synonymous: "quantitation limit," "reporting limit," "limit of quantitation," and "minimum level."
Method Detection Limit (MDL)	See LOD
Minimum Level (ML)	The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML may be obtained in several ways and are either: 1. Published in a method; 2. Sample concentrations equivalent to the lowest acceptable calibration point used by a laboratory; or Calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor of 3.
Monthly or Weekly Average Concentration Limit	Other than for bacteriological testing, means the highest allowable average calculated as an arithmetic mean of consecutive measurements made during calendar month or week, respectively. The "monthly or weekly average concentration limit" for *E. coli* bacteria means the highest allowable average calculated as the geometric mean of a minimum of four (4) measurements made during a calendar month or week, respectively. The geometric mean is the nth root of the product of n numbers. For either method (CFU or MPN), when data are reported as "0" or non-detect then input a "1" into the calculation for the geometric mean.
Monthly Average Mass Limit	The highest allowable value that shall be obtained by taking the total mass discharged during a calendar month divided by the number of days in the month that the facility was discharging.
Monthly Average Mass Loading	The mass loading reported against the monthly average mass limit. The monthly average value shall be determined by the summation of all the measured pollutant discharges by mass divided by the number of days during the month when the measurements were made. If monitoring is required less frequently than monthly, calculate the average monthly mass loading for any month that sampling occurred. Report the highest monthly average within the monitoring period.
Non-wotus protected surface water	Non-wotus protected surface water means a protected surface water that is not a WOTUS.
No Observed Effect Concentration (NOEC)	The highest tested concentration of effluent or toxicant, that causes no observable adverse effect on the test organisms (i.e., the highest concentration of toxicant at which the values for the observed responses are <u>not</u> statistically significant different from the controls).
Pathogen	A disease-causing organism.
Point Estimate Techniques	As Probit, Interpolation Method, Spearman-Karber are used to determine the effluent concentration at which adverse effects (e.g., fertilization, growth or survival) occurred. For example, concentration at which a 25 percent reduction in fertilization occurred.
Point Source	Point Source means any discernible, confined and discrete conveyance, including, any pipe, ditch, channel, tunnel, conduit,

	well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged to a protected surface water. Point source does not include return flows from irrigated agriculture.
Protected Surface Waters	Protected Surface Waters means waters of the State listed on the protected surface water list under Section 49-221, Subsection G and all WOTUS.
Reasonable Potential (RP)	The possibility based on the statistical calculations using the data submitted or consideration of other factors, that the discharge may cause or contribute to an exceedance of a water quality standard.
Reference Toxicant Test	A toxicity test conducted with the addition of a known toxicant to indicate the sensitivity of the organisms being used and demonstrate a laboratory's ability to obtain consistent results with the test method. Reference toxicant data are part of the routine QA/QC program to evaluate the performance of laboratory personnel and test organisms.
Reporting Limit	A.A.C. R9-14-601 defines method reporting limit as the minimum concentration of a contaminant reported after analyzing a sample for a given parameter, determined after corrections have been made for sample dilution and sample weight. (Also see Limit of Quantitation)
Runoff	Rainwater, leachate, or other liquid that drains over any part of a land surface and runs off of the land surface.
Significant Difference	Defined as statistically significant difference (e.g., 95% confidence level) in the means of two distributions of sampling results.
Single Concentration Acute Test	A statistical analysis comparing only two sets of replicate observations. In the case of WET, comparing only two test concentrations (e.g., a control and 100% effluent). The purpose of this test is to determine if the 100% effluent concentration differs from the control (i.e., the test passes or fails).
Storm Event	A precipitation event that results in a measurable amount of precipitation
Surface Disposal Site	An area of land that contains one or more active sewage sludge units.
Submit	As used in this permit, means post-marked, documented by other mailing receipt, sent electronically, or hand-delivered to ADEQ.
Surface Water Quality Standards	Surface Water Quality Standards means a standard adopted for a protected surface water pursuant to Section 49-221 and, in the case of WOTUS, pursuant to Section 49-222.
Test Acceptability Criteria (TAC)	Specific criteria for determining whether toxicity tests results are acceptable. The effluent and reference toxicant must meet specific criteria as defined in the test method.
Ton	A net weight of 2000 pounds and is known as a short ton.
Total Maximum Daily Loads (TMDLs)	Total Maximum Daily Loads (TMDLs) is an estimation of the total amount of a pollutant from all sources that may be added to a water, while still allowing the water to achieve and maintain applicable surface water quality standards. Each total maximum daily load shall include allocations for sources that contribute the pollutant to the water. Total Maximum Daily Loads for waters of

	the U.S. shall meet the requirements of section 303(d) of the Clean Water Act (33 USC 1313(d)) and regulations implementing that statute to achieve applicable surface water quality standards.
Total Solids	The biosolids material that remains when sewage sludge is dried at 103° C to 105° C.
Toxic Unit (TU)	A measure of toxicity in an effluent as determined by the acute toxicity units or chronic toxicity units measured. Higher the TUs indicate greater toxicity.
Toxicity Identification Evaluation (TIE)	A set of procedures used to identify the specific chemical(s) causing effluent toxicity.
Toxicity Reduction Evaluation (TRE)	A site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.
Toxicity Test	A procedure to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of effect of a specific chemical or effluent on exposed test organisms.
Vectors	Rodents, flies, mosquitoes, or other organisms capable of transporting pathogens.
Waters of the United States (WOTUS)	Waters of the United States (WOTUS) means protected surface waters that are also navigable waters as defined by Section502(7) of the Clean Water Act.
Weekly Average Mass Limit	The highest allowable value that shall be obtained by taking the total mass discharged during a calendar week divided by the number of days in the week that the facility was discharging.
Weekly Average Mass Loading	The mass loading reported against the weekly average mass limit. The weekly average value shall be determined by the summation of all the measured pollutant discharges by mass divided by the number of days during the week when the measurements were made.
WOTUS Protected Surface Water	WOTUS protected surface water- means a protected surface water that is a WOTUS.
Whole Effluent Toxicity	The total toxic effect of an effluent measured directly with a toxicity test.

Appendix B. AZPDES Discharge Flow Record

SRP Santan Generating Station – AZ0023558		
Discharge to SRP Irrigation Lateral No. 4-11.4 & 5-11.0		
Outfall No:	001	
Location:		
Month:		**Year**:
Date:	**Flow Duration** [(1)] **(Total hours per day)**	**Flow Rate** [(2)] **(Total MGD per day)**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Comment:		

Footnotes

Total time of discharge in hours per day. If actual time is not available, use an estimate of flow duration.

Report flow discharge in MGD. If no discharge occurs on any given day, report 'ND" for the flow for that day.

AZPDES Discharge Flow Record

SRP Santan Generating Station – AZ0023558		
Discharge to SRP Irrigation Lateral No. 4-11.4 & 5-11.0		
Outfall No:	005	
Location:		
Month:		**Year**:
Date:	**Flow Duration** [1] **(Total hours per day)**	**Flow Rate** [2] **(Total MGD per day)**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Comment:		

Footnotes

Total time of discharge in hours per day. If actual time is not available, use an estimate of flow duration.

Report flow discharge in MGD. If no discharge occurs on any given day, report 'ND" for the flow for that day.

AZPDES Discharge Flow Record

SRP Santan Generating Station – AZ0023558		
Discharge to SRP Irrigation Lateral No. 4-8.4 & 5-9		
Outfall No:	021	
Location:		
Month:		**Year**:
Date:	**Flow Duration** [1] **(Total hours per day)**	**Flow Rate** [2] **(Total MGD per day)**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Comment:		

Footnotes

1 Total time of discharge in hours per day. If actual time is not available, use an estimate of flow duration.

2 Report flow discharge in MGD. If no discharge occurs on any given day, report 'ND" for the flow for that day.

Appendix C. Ammonia Data Log

SRP Santan Generating Station – AZ0023558					
A	B	C	D	E	F
Date of Sample	Ammonia Concentration (Effluent) (mg/L N)	pH Effluent (S.U.)	Temperature Effluent (° Celsius)	Ammonia Standard as Determined from Ammonia Criteria Tables (attached)	Ammonia Impact Ratio (Column B / Column E)
Please copy and complete for each month of each year for permit term. Attach any additional pages as necessary.					

Appendix C. Continued—Ammonia Special Reporting Requirements

Arizona Administrative Code, Title 18, Chapter 11 Department of Environmental Quality Water Quality Standards contains acute and chronic ammonia standards that are contingent upon temperature and/or pH values. The chronic criteria are more stringent than the acute ammonia criteria, so the effluent ammonia will be compared to the chronic ammonia standards. The tables for chronic and acute Aquatic and Wildlife designated uses follow below. The permittee shall refer to these tables to determine the ammonia standard that applies each time an ammonia sample is taken. The required minimum discharge sampling frequency for these parameters may be found in Table 1 or 2 of this permit. The permittee shall record all sampling results for effluent ammonia, effluent pH and temperature at the time of sampling, as well as the applicable ammonia standards, ammonia impact ratios, and sampling dates in the Ammonia Data Log. Additionally, the ammonia impact ratio shall be calculated by dividing the ammonia value by the corresponding ammonia standard. Anytime an ammonia impact ratio is found to be above the limit of 1.0 for the pH and temperature at the time the sample was taken, the permittee shall highlight this on the ammonia data log. These results shall also be reported on DMRs with any exceedances noted. Annual submittal of the ammonia data log is required (See Part II.B.3)

A&W Designated Uses

Determination of Chronic Total Ammonia Criteria as N in mg / L Based on pH and Temperature at Time of Sampling (1) (2)										
pH	**Temperature, °C**									
	0	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**
6.5	6.7	6.7	6.1	5.3	4.7	4.1	3.6	3.2	2.8	2.5
6.6	6.6	6.6	6.0	5.3	4.6	4.1	3.6	3.1	2.8	2.4
6.7	6.4	6.4	5.9	5.2	4.5	4.0	3.5	3.1	2.7	2.4
6.8	6.3	6.3	5.7	5.0	4.4	3.9	3.4	3.0	2.6	2.3
6.9	6.1	6.1	5.6	4.9	4.3	3.8	3.3	2.9	2.6	2.3
7.0	5.9	5.9	5.4	4.7	4.2	3.7	3.2	2.8	2.5	2.2
7.1	5.7	5.7	5.2	4.5	4.0	3.5	3.1	2.7	2.4	2.1
7.2	5.4	5.4	5.0	4.3	3.8	3.3	2.9	2.6	2.3	2.0
7.3	5.1	5.1	4.6	4.1	3.6	3.1	2.8	2.4	2.1	1.9
7.4	4.7	4.8	4.3	3.8	3.3	3.0	2.6	2.3	2.0	1.7
7.5	4.4	4.4	4.0	3.5	3.1	2.7	2.4	2.1	1.8	1.6
7.6	4.0	4.0	3.6	3.2	2.8	2.5	2.2	1.9	1.7	1.5
7.7	3.6	3.6	3.3	2.9	2.5	2.2	1.9	1.7	1.5	1.3
7.8	3.2	3.2	2.9	2.5	2.2	2.0	1.7	1.5	1.3	1.2
7.9	2.8	2.8	2.5	2.2	2.0	1.7	1.5	1.3	1.2	1.0
8.0	2.4	2.4	2.2	1.9	1.7	1.5	1.3	1.2	1.0	0.90
8.1	2.1	2.1	1.9	1.7	1.5	1.3	1.1	1.0	0.88	0.77

Determination of Chronic Total Ammonia Criteria as N in mg / L
Based on pH and Temperature at Time of Sampling (1) (2)

pH	Temperature, °C									
	0	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**
8.2	1.8	1.8	1.6	1.4	1.3	1.1	0.97	0.86	0.75	0.66
8.3	1.5	1.5	1.4	1.2	1.1	0.94	0.83	0.73	0.64	0.56
8.4	1.3	1.3	1.2	1.0	0.91	0.80	0.70	0.62	0.54	0.48
8.5	1.1	1.1	0.99	0.87	0.77	0.67	0.59	0.52	0.46	0.40
8.6	0.92	0.92	0.84	0.74	0.65	0.57	0.50	0.44	0.39	0.34
8.7	0.78	0.78	0.71	0.62	0.55	0.48	0.42	0.37	0.33	0.29
8.8	0.66	0.66	0.60	0.53	0.46	0.41	0.36	0.32	0.28	0.24
8.9	0.57	0.57	0.51	0.45	0.40	0.35	0.31	0.27	0.24	0.21
9.0	0.49	0.49	0.44	0.39	0.34	0.30	0.26	0.23	0.20	0.18

Footnotes

1 pH and temperature are field measurements taken at the same time and location as the water samples destined for the laboratory analysis of ammonia.

2 If field measured pH and/or temperature values fall between the Chronic Total Ammonia tabular values, round field measured values according to standard scientific rounding procedures to nearest tabular value to determine the ammonia standard.

Determination of Acute Total Ammonia Criteria as N in mg / L **Based on pH at Time of Sampling** (1) (2)		
pH	**A&W c**	**A&Ww and A&Wedw**
6.5	33	49
6.6	31	47
6.7	30	45
6.8	28	42
6.9	26	39
7.0	24	36
7.1	22	33
7.2	20	30
7.3	17	26
7.4	15	23
7.5	13	20
7.6	11	17
7.7	10	14
7.8	8.1	12
7.9	6.8	10
8.0	5.6	8.4
8.1	4.6	7.0
8.2	3.8	5.7
8.3	3.2	4.7
8.4	2.6	3.9
8.5	2.1	3.2
8.6	1.8	2.6
8.7	1.5	2.2
8.8	1.2	1.8
8.9	1.0	1.5
9.0	0.89	1.3

Footnotes

1 pH and temperature are field measurements taken at the same time and location as the water samples destined for the laboratory analysis of ammonia.

2 If field measured PH and/or temperature values fall between the Acute Total Ammonia tabular values, round field measured values according to standard scientific rounding procedures to nearest tabular value to determine the ammonia standard.

Appendix D. Standard AZPDES Permit Conditions & Notifications
(Updated as of February 2, 2004)

1. Duty to Reapply—[R18-9-B904(B)]
Unless the Permittee permanently ceases the discharging activity covered by this permit, the Permittee shall reapply, submit a new application, 180 days before the existing permit expires. ADEQ must receive the new application at least 180 days before permit expiration in order to start the re-application process.

2. Applications—[R18-9-A905(A)(1)(C) which incorporates 40CFR 122.22]

   a. All applications shall be signed as follows:

      i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
         A. A president, secretary, treasure, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy-or decision-making functions for the corporation, or

         B. The manager of one or more manufacturing, production, or 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 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 agency includes: (i) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

   b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, 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 paragraph (a) of this section;

      ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, 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 thus be either a named individual or any individual occupying a named position.) and,

      iii. The written authorization is submitted to the Director.

   c. Changes to Authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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 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.

3. Duty to Comply - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(a)(i) and A.R.S. §49- 262, 263.01, and 263.02.]

a. The Permittee shall comply with all conditions of this permit and any standard and prohibition required under A.R.S. Title 49, Chapter 2, Article 3.1 and A.A.C. Title 18, Chapter 9, Articles 9 and 10. For discharges to a WOTUS, 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.

c. The Permittee shall comply with the effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulation that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

d. Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 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.

e. Criminal Penalties. Any a person who violates a condition of this permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 9, 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.

4. Need to Halt or Reduce Activity Not a Defense - [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.

5. Duty to Mitigate - 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 or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance - [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 which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

7. Permit Actions - [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. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property Rights - [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 privilege.

9. Duty to Provide Information - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(h)]

   The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and Entry [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(i)]

    The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to:

    a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms of the permit;

    c. Inspect at reasonable times any facilities, equipment (including monitoring equipment or control equipment), practices or operations regulated or required under this permit; and

    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Articles 9 and 10, any substances or parameters at any location.

11. Monitoring and Records - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(j)]

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.

    c. Records of monitoring information shall include:

       i. The date, exact place and time of sampling or measurements;

       ii. The individual(s) who performed the sampling or measurements;

       iii. The date(s) the analyses were performed;

       iv. The individual(s) who performed the analyses;

       v. The analytical techniques or methods used; and

       vi. The results of such analyses.

d. Monitoring must be conducted according to test procedures specified in this permit. If a test procedure is not specified in the permit, then monitoring must be conducted according to test procedures approved under A.A.C. R18-9-A905(B) including those under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 (for sludge).

e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment for not more than four years, or both.

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. Signatory Requirement - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(k)]

a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22 incorporated at R18-9-A905(A)(1)(c))

b. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both.

13. Reporting Requirements - [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 of additions to the permitted facility. Notice is required only when:

i. The alteration or addition to a permitted facility that dischargers to a WOTUS, 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 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 R18-9-A905(A)(3)(b)).

iii. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Anticipated noncompliance – The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Transfers – (R18-9-B905) This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under Arizona Revised Statutes and the Clean Water Act.

d. Monitoring reports – Monitoring results shall be reported at the intervals specified elsewhere in this permit.

i. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

ii. If the Permittee monitors any pollutant more frequently than required by the permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.

iii. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. Compliance schedules – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

f. Twenty-four hour reporting.

i. The Permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five 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.

ii. The following shall be included as information which must be reported within 24 hours under this paragraph.

A. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g) which is incorporated by reference at R18-9-A905(A)(3)(a)).

B. Any upset which exceeds any effluent limitation in the permit.

C. 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 R18-9-A905(A)(3)(d)).

g. Other noncompliance – The Permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

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

14. Bypass - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(m)]

a. Definitions

i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

ii. "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 which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (c) and (d) of this section.

c. Notice

i. Anticipated bypass – If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of bypass.

ii. Unanticipated bypass – The Permittee shall submit notice of an unanticipated bypass as required in paragraph (f)(2) of section 13 (24-hour notice).

d. Prohibition of bypass

i. Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:

A. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

B. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. 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

C. The Permittee submitted notices as required under paragraph (c) of this section.

ii. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

15. Upset - [A.R.S.§§49-255(8) and 255.01(E), R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(n)]

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 the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative 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 paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset – A Permittee who wishes to establish the affirmative defenses of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the Permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated; and

iii. The Permittee submitted notice of the upset as required in paragraph (f)(2) of Section 13 (24-hour notice); and

iv. The Permittee has taken appropriate measure including all reasonable steps to minimize or prevent any discharge or sewage sludge use or disposal that is in violation of the permit and that has a reasonable likelihood of adversely affecting human health or the environment per A.R.S. § 49-255.01(E)(1)(d).

d. Burden of proof – In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

16. Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers - [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(l) (which is incorporated at R18-9-A905(A)(3)(a)), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. One hundred micrograms per liter (100 µg/L);

ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

iii. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7) (which is incorporated at R18-9-A905(A)(1)(b)); or

iv. The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. Five hundred micrograms per liter (500 µg/L);

ii. One milligram per liter (1 mg/L) for antimony;

iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7)(which is incorporated at R18-9-A905(A)(1)(b)); or

iv. The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).

17. Publicly Owned Treatment Works (POTWs) - [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at ARS § 49-255(5).

a. All POTW's must provide adequate notice to the Director of the following:

i. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

ii. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

iii. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharge from the POTW.

Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned

treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener Clause - [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44(c)]
This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately Owned Treatment Works - [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized materials are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.

b. It is the Permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The Permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority. The Permittee must provide adequate security to prevent unauthorized discharges to the collection system.

c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the Permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using ADEQ Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the Permittee, and the Permittee agrees to allow the non-domestic discharge, the user shall submit the application and the Permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

20. Transfers by Modification - [R18-9-B905]

Except as provided in section 21, a permit may be transferred by the Permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made under R18-9-B906, to identify the new Permittee and incorporate such other requirements as may be necessary.

21. Automatic Transfers [R18-9-B905]

An alternative to transfers under section 20, any AZPDES permit may be automatically transferred to a new Permittee if:

a. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under R18-9-B906(B).

22. Minor Modification of Permits [R18-9-B906(B)]

Upon the consent of the Permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following public notice procedures under R18-9-A907 or A908. Minor modifications may only:

a. Correct typographical errors;

b. Update a permit condition that changed as a result of updating an Arizona water quality standard;

c. Require more frequent monitoring or reporting by the Permittee;

d. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

e. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in their permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Director;

f. Change the construction schedule for a discharger that dischargers to a WOTUS which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29 (which is incorporated by reference in R18-9-A905(A)(1)(e));

g. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits;

h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 and 403.18 as enforceable conditions of the POTW's permit; and

i. Annex an area by a municipality.

23. Termination of Permits - [R-9-B906(C)]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

a. Noncompliance by the Permittee with any condition of the permit;

b. The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only by regulated to acceptable levels by permit modification or termination; or

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, a plant closure or termination of discharge by connection to a POTW).

24. Availability of Reports - [Pursuant to A.R.S § 49-205]

Except for data determined to be confidential under A.R.S § 49-205(A), all reports prepared in accordance with the terms of this permit shall be available for public inspection at ADEQ offices. As required by A.R.S. § 49-205(B) and (C), permit applications, permits, and effluent data shall not be considered confidential.

25. Removed Substances - [Pursuant to Clean Water Act Section 301]

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

26. Severability - [Pursuant to A.R.S § 49-324(E)]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

27. Civil and Criminal Liability - [Pursuant to A.R.S § 49-262, 263.01, and 263.02]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.

28. Oil and Hazardous Substance Liability - [Pursuant to Clean Water Act Section 311].

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator 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.

29. State or Tribal Law - [Pursuant to R 18-9-A904 (C)].
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator 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.