



ADEQ Inventory No.	100774	Permit No.	AZ0023531
LTF No.	91544	Place ID No.	3134

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
Agricultural Improvement and Power District (SRP)
Agua Fria Generating Station (AFGS)
P. O. Box 52025
Mail Station: AFS200
Phoenix, Arizona 85072

is authorized to discharge cooling tower blowdown, boiler blowdown, storage pond overflow, other low volume wastes including those from the raw water treatment process, and stormwater from the Agua Fria Generating Station (AFGS) located at 7302 W. Northern Avenue in Glendale, Maricopa County, Arizona to SRP Lateral 20, a piped conveyance to the Grand Canal (a Phoenix Area Canal) and New River in the Lower Agua Fria Basin of the Middle Gila River Basin at:

Outfall No.	Latitude	Longitude	Legal
Outfall 001	33° 33' 17.5" N	112° 13' 10.4" W	Township 3 N, Range 1 E, Section 36

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. If the facility is not yet constructed or is incapable of discharge at this time, the permittee may be eligible for reduced fees under rule. Send all correspondence requesting reduced fees to the Water Quality Division of ADEQ. Please reference the permit number, LTF number and why reduced fees are requested under rule.

This permit shall become effective on _____, 2023.

This permit and the authorization to discharge shall expire on _____, 2028.

Signed _____.

Trevor Baggio, 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 Outfall 001 as specified in Table 1 which follows. These requirements apply when the regulated receiving waters are operating under normal flow conditions as well as when the Grand Canal undergoes into dry-up. (See Part V.A for mixing zone requirements).

Table 1. Effluent Limitations and Monitoring Requirements

Parameter (1)	Maximum Allowable Discharge Limitations Concentration Limits (2)		Monitoring Requirement	
	Monthly Average	Daily Maximum	Monitoring Frequency	Sample Type
Discharge Flow (MGD) (3)	Report (mgd)	Report (mgd)	1 x / day	Metered (4)
Flow - Grand Canal – Upstream (5)	Report (mgd)	Report (mgd)	1 x / month	Calculated
Arsenic – dilution (6)	Report (µg/L)	Report (µg/L)	1 x / month	Discrete (7)
Arsenic – no dilution (8)	200 µg/L	400 µg/L	1 x / month	24-hour Composite (9)
Barium	2,000 µg/L	4,000 µg/L	1 x / month	24-hour Composite
Boron	1,000 µg/L	2,000 µg/L	1 x / month	24-hour Composite
Bis (2-Ethylhexyl) Phthalate	6 mg/L	12 mg/L	1 x / month	24-hour Composite
Chlorine, free available (FAC) (10)	0.2 mg/L	0.5 mg/L	1 x / month	Discrete
Chromium, total	0.2 mg/L	0.2 mg/L	1 x / month	24-hour Composite
Fluoride	4,000 µg/L	8,000 µg/L	1 x / month	24-hour Composite
Nitrate (as N)– dilution (6)	Report µg/L	Report µg/L	1 x / month	Discrete
Nitrate (as N)– no dilution (8)	Report µg/L	Report µg/L	1 x / month	Discrete
Oil and Grease	15 mg/L	20 mg/L	1 x / month	Discrete
Total Suspended Solids (TSS)	30 mg/L	100 mg/L	1 x / month	24-hour Composite

Zinc	1,000 µg/L	1,000 µg/L	1 x / month	24-hour Composite
pH (10)	Not less than 6.5 standard units (S.U.) nor greater than 9.0 S.U.		1x/week	Discrete

Footnotes

- 1 All metal analysis shall be for total recoverable metals.
- 2 Mg/L = milligrams per liter; µg/L = micrograms per liter.
- 3 Monitoring and reporting required. No limit set at this time. In addition to the average and maximum flows reported on the Discharge Monitoring Report (DMR) or an equivalent form, daily discharge flow shall be recorded on the Discharge Flow Record provided in Appendix B or an equivalent form. See Part II.B. for reporting requirements. Sample shall be collected at the location mentioned in Part II. A.1.
- 4 Flow shall be measured using a flow metering device at the outfall or by summing all the contributing flows to the outfall in which case each contributing flow must be measured using a flow metering device.
- 5 Readings shall be collected and calculated as described in part V.A.5. Footnote No.3.
- 6 A mixing zone has been granted for arsenic and nitrate. These requirements apply when the regulated receiving waters are operating under normal flow conditions (See Part V.A. for mixing zone requirements). Monitoring and reporting required. No limit set at this time. Monitoring will be performed monthly at the locations identified in part II.A.1. See Part II.B for reporting. Enter "NODI 9" when monitoring under Footnote 6 is not required.
- 7 Discrete sample will be performed in the Grand Canal as specified in Part V.A.7.
- 8 When the Grand Canal undergoes dry-up, the surface waters cannot be conveyed to the Goodyear Water Treatment Plant (WTP). Discharges from AFGS would be distributed through the Lateral 20 System and then isolated in the Grand Canal. As such, these discharges would be limited to agricultural use standards only. The WTPs along the SRP Canal System are typically taken off-line for approximately 30 days during dry-up events for their own facility maintenance and do not receive water deliveries from the canal system during dry-up. There are no applicable Agricultural designated use standard for nitrate. Enter "NODI 9" when monitoring under Footnote 8 is not required.
- 9 For this permit, a "24-hour composite" means a mixture of two or more discrete samples (aliquots) obtained at equal time intervals during a 24-hour period. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.
- 10 pH and FAC must be analyzed at the time of sampling and does 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 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.5.

Table 2. Assessment Level Monitoring

Parameter	Assessment Levels (1) (2)		Monitoring Requirements	
	Monthly Average	Daily Maximum	Monitoring Frequency (3)	Sample Type
Aluminum (4)	Report [µg/L] (4)	Report [µg/L] (4)	1 x / Quarter	24-hour Composite
Bromide (5)	Report [µg/L] (5)	Report [µg/L] (5)	1 x / Quarter	24-hour Composite
Chlorine (Total Residual)	4,000 µg/L	8,000 µg/L	1 x / Quarter	Discrete
Iron (4)	Report [µg/L] (4)	Report [µg/L] (4)	1 x / Quarter	24-hour Composite

Hardness (CaCO ₃) – Effluent	Report (mg/L)	Report (mg/L)	1 x / Quarter	24-hour Composite
Magnesium (5)	Report [µg/L] (5)	Report [µg/L] (5)	1 x / Quarter	24-hour Composite
Nitrite (as N)	1,000 µg/L	2,000 µg/L	1 x / Quarter	24-hour Composite
Sulfate (5)	Report [µg/L] (5)	Report [µg/L] (5)	1 x / Quarter	24-hour Composite

Footnotes

- 1 Concentration values are calculated based on Arizona Water Quality Standards. Monitoring and reporting required.
- 2 All metals effluent Assessment Levels are for total recoverable metals.
- 3 Monitoring frequency is specified in Part I.E, Alternate Sampling Schedule for the first year of the permit term.
- 4 Based on information provided in Form 2C Addendum, permittee believes presence of Iron and Aluminum in the discharge. As TSS is limited (as per effluent limitation Guideline) and an indicator to control the discharge of Iron and Aluminum permittee needs to provide quantitative data or explain the reasons why the pollutant is discharged or expected to be discharged.
- 5 Based on information provided in Form 2C Addendum, permittee believes presence of Bromide, Sulfate, and Magnesium in the discharge. The receiving water has a Domestic Water Source designated use and is not limited in an effluent limitation guideline. The permittee needs to provide quantitative data or explain the reasons why the pollutant is discharged or expected to be discharged.

C. Whole Effluent Toxicity Monitoring

Not Applicable

D. Discharge Characterization Testing

The permittee shall monitor the discharge at Outfall 001 to characterize the facility’s effluent for the parameters listed in Tables 3.a. – 3.f. (as follows). No limits or ALs are established, 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:

Table 3.a. Discharge Characterization Testing—General Chemistry and Microbiology

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Ammonia (as N)	mg/L	1 x / Quarter	Discrete
Biochemical Oxygen Demand (BOD-5)	mg/L	1 x / Quarter	24-hour Composite
Chlorine, Total Residual (TRC) (2)(3)	µg/L	1 x / Quarter	Discrete
Dissolved Oxygen (3)	mg/L	1 x / Quarter	Discrete
Nitrate/Nitrite (as N)	mg/L	1 x / Quarter	24-hour Composite
Nitrogen, Total Kjeldahl (TKN)	mg/L	1 x / Quarter	24-hour Composite
Oil and Grease	mg/L	1 x / Quarter	Discrete
pH (3)	S.U.	1 x / Quarter	Discrete
Phosphorus (Total)	mg/L	1 x / Quarter	24-hour Composite
Temperature (3)	°Celsius	1 x / Quarter	Discrete
Total Dissolved Solids (TDS)	mg/L	1 x / Quarter	24-hour Composite
Total Organic Carbon (TOC)	mg/L	1 x / Quarter	24-hour Composite

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (1)	Sample Type
Total Suspended Solids (TSS)	mg/L	1 x / Quarter	24-hour Composite

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 3.a. requirements.
- 2 Sample when chlorine or bromine compounds are used for disinfection. See Part II.A.7 for specific monitoring requirements for chlorine.
- 3 Temperature, pH, 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.7. 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 3.b. Discharge Characterization Testing—Selected Metals and Trace Substances

Parameter (1)	Reporting Units	Monitoring Requirements	
		Monitoring Frequency (2)	Sample Type
Antimony	µg/L	1 x / 6 months	24-hour Composite
Arsenic	µg/L	1 x / 6 months	24-hour Composite
Beryllium	µg/L	1 x / 6 months	24-hour Composite
Cadmium	µg/L	1 x / 6 months	24-hour Composite
Chromium (3)	µg/L	1 x / 6 months	24-hour Composite
Chromium VI (3)	µg/L	1 x / 6 months	Discrete
Copper	µg/L	1 x / 6 months	24-hour Composite
Iron	µg/L	1 x / 6 months	24-hour Composite
Lead	µg/L	1 x / 6 months	24-hour Composite
Mercury	µg/L	1 x / 6 months	Discrete
Nickel	µg/L	1 x / 6 months	24-hour Composite
Selenium	µg/L	1 x / 6 months	24-hour Composite
Silver	µg/L	1 x / 6 months	24-hour Composite
Thallium	µg/L	1 x / 6 months	24-hour Composite
Zinc	µg/L	1 x / 6 months	24-hour Composite
Hardness	mg/L	1 x / 6 months	24-hour Composite
Cyanide (as free cyanide)	µg/L	1 x / 6 months	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 3.b. requirements.
- 3 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 3.c. Discharge Characterization Testing—Selected Volatile Organic Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Acrolein	µg/L	1 x / year	Discrete
Acrylonitrile	µg/L	1 x / year	Discrete
Benzene	µg/L	1 x / year	Discrete
Bromoform	µg/L	1 x / year	Discrete
Carbon tetrachloride	µg/L	1 x / year	Discrete
Chlorobenzene	µg/L	1 x / year	Discrete
Chlorodibromomethane	µg/L	1 x / year	Discrete
Chloroethane	µg/L	1 x / year	Discrete
2-chloroethylvinyl ether	µg/L	1 x / year	Discrete
Chloroform	µg/L	1 x / year	Discrete
Dichlorobromomethane	µg/L	1 x / year	Discrete
1,1-dichloroethane	µg/L	1 x / year	Discrete
1,2-dichloroethane	µg/L	1 x / year	Discrete
Trans-1,2-dichloroethylene	µg/L	1 x / year	Discrete
1,1-dichloroethylene	µg/L	1 x / year	Discrete
1,2-dichloropropane	µg/L	1 x / year	Discrete
1,3-dichloropropylene	µg/L	1 x / year	Discrete
Ethylbenzene	µg/L	1 x / year	Discrete
Methyl bromide	µg/L	1 x / year	Discrete
Methyl chloride	µg/L	1 x / year	Discrete
Methylene chloride	µg/L	1 x / year	Discrete
1,1,2,2-tetrachloroethane	µg/L	1 x / year	Discrete
Tetrachloroethylene	µg/L	1 x / year	Discrete
Toluene	µg/L	1 x / year	Discrete
1,1,1-trichloroethane	µg/L	1 x / year	Discrete
1,1,2-trichloroethane	µg/L	1 x / year	Discrete
Trichloroethylene	µg/L	1 x / year	Discrete
Vinyl chloride	µg/L	1 x / year	Discrete

Table 3.d. Discharge Characterization Testing—Selected Acid Extractable Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
P-chloro-m-cresol	µg/L	1 x / year	24-hour Composite
2-chlorophenol	µg/L	1 x / year	24-hour Composite
2,4-dichlorophenol	µg/L	1 x / year	24-hour Composite

2,4-dimethylphenol	µg/L	1 x / year	24-hour Composite
4,6-dinitro-o-cresol	µg/L	1 x / year	24-hour Composite
2,4-dinitrophenol	µg/L	1 x / year	24-hour Composite
2-nitrophenol	µg/L	1 x / year	24-hour Composite
4-nitrophenol	µg/L	1 x / year	24-hour Composite
Pentachlorophenol	µg/L	1 x / year	24-hour Composite
Phenol	µg/L	1 x / year	24-hour Composite
2,4,6- trichlorophenol	µg/L	1 x / year	24-hour Composite

Table 3.e. Discharge Characterization Testing—Selected Base Neutral Compounds

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Acenaphthene	µg/L	1 x / year	24-hour Composite
Acenaphthylene	µg/L	1 x / year	24-hour Composite
Anthracene	µg/L	1 x / year	24-hour Composite
Benzidine	µg/L	1 x / year	24-hour Composite
Benzo(a)anthracene	µg/L	1 x / year	24-hour Composite
Benzo(a)pyrene	µg/L	1 x / year	24-hour Composite
3,4 benzofluoranthene	µg/L	1 x / year	24-hour Composite
Benzo(ghi)perylene	µg/L	1 x / year	24-hour Composite
Benzo(k)fluoranthene	µg/L	1 x / year	24-hour Composite
Bis (2-chloroethoxy) methane	µg/L	1 x / year	24-hour Composite
Bis (2-chloroethyl) ether	µg/L	1 x / year	24-hour Composite
Bis(2-chloroisopropyl) ether	µg/L	1 x / year	24-hour Composite
Bis (2-ethylhexyl) phthalate	µg/L	1 x / year	24-hour Composite
4-bromophenyl phenyl ether	µg/L	1 x / year	24-hour Composite
Butyl benzyl phthalate	µg/L	1 x / year	24-hour Composite
2-chloronaphthalene	µg/L	1 x / year	24-hour Composite
4-chlorophenyl phenyl ether	µg/L	1 x / year	24-hour Composite
Chrysene	µg/L	1 x / year	24-hour Composite
Di-n-butyl phthalate	µg/L	1 x / year	24-hour Composite
Di-n-octyl phthalate	µg/L	1 x / year	24-hour Composite
Dibenzo(a,h)anthracene	µg/L	1 x / year	24-hour Composite
1,2-dichlorobenzene	µg/L	1 x / year	24-hour Composite
1,3-dichlorobenzene	µg/L	1 x / year	24-hour Composite
1,4-dichlorobenzene	µg/L	1 x / year	24-hour Composite
3,3-dichlorobenzidine	µg/L	1 x / year	24-hour Composite
Diethyl phthalate	µg/L	1 x / year	24-hour Composite

Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Dimethyl phthalate	µg/L	1 x / year	24-hour Composite
2,4-dinitrotoluene	µg/L	1 x / year	24-hour Composite
2,6-dinitrotoluene	µg/L	1 x / year	24-hour Composite
1,2-diphenylhydrazine	µg/L	1 x / year	24-hour Composite
Fluoranthene	µg/L	1 x / year	24-hour Composite
Fluorene	µg/L	1 x / year	24-hour Composite
Hexachlorobenzene	µg/L	1 x / year	24-hour Composite
Hexachlorobutadiene	µg/L	1 x / year	24-hour Composite
Hexachlorocyclopentadiene	µg/L	1 x / year	24-hour Composite
Hexachloroethane	µg/L	1 x / year	24-hour Composite
Indeno(1,2,3-cd)pyrene	µg/L	1 x / year	24-hour Composite
Isophorone	µg/L	1 x / year	24-hour Composite
Naphthalene	µg/L	1 x / year	24-hour Composite
Nitrobenzene	µg/L	1 x / year	24-hour Composite
N-nitrosodi-n-propylamine	µg/L	1 x / year	24-hour Composite
N-nitrosodimethylamine	µg/L	1 x / year	24-hour Composite
N-nitrosodiphenylamine	µg/L	1 x / year	24-hour Composite
Phenanthrene	µg/L	1 x / year	24-hour Composite
Pyrene	µg/L	1 x / year	24-hour Composite
1,2,4-trichlorobenzene	µg/L	1 x / year	24-hour Composite

Table 3.f. Discharge Characteristic Testing - Based on Designated Uses

Additional Parameters from the Arizona Surface Water Quality Standards, Appendix A; Table 1			
Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Alachlor (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Aldrin	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Asbestos — only applies with a designated use is either DWS or FBC	MF/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Atrazine (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Barium	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Boron	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Carbofuran (Furadan) (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Chlordane	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
1,2-cis-Dichloroethylene	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Chlorpyrifos	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Dalapon (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite

Additional Parameters from the Arizona Surface Water Quality Standards, Appendix A; Table 1			
Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
1,2-Dibromoethane (EDB) Ethylene dibromide	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
4,4-DDD (p,p,- Dichlorodiphenyldichloroethane)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
4,4-DDE (p,p- Dichlorodiphenyldichloroethylene)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
4,4-DDT (p,p- Dichlorodiphenyltrichloroethane)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
2,4-Dichlorophenoxyacetic acid (2,4- D) (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Dieldrin	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Di (2-ethylhexyl) adipate	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Dinoseb (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Diquat (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Endosulfan sulfate	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Endosulfan (Total)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Endothall (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Endrin	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Fluoride	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Glyphosate (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Heptachlor	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Heptachlor epoxide	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Hexachlorocyclohexane alpha (Alpha-BHC)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Hexachlorocyclohexane beta	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Hexachlorocyclohexane delta	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Hexachlorocyclohexane gamma (lindane)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Iron	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Malathion	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Manganese	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Methoxychlor (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Mirex (2)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Oxamyl (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Paraquat	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Permethrin (2)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Pichloram (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite

Additional Parameters from the Arizona Surface Water Quality Standards, Appendix A; Table 1			
Parameter	Reporting Units	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Polychlorinated biphenyls (PCBs)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Simazine (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Styrene	µg/L	1 x / year in years 2024,2025,2026 of permit term	Discrete
2,3,7,8-Tetrachlorodibenzo-p-dioxin	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Toxaphene	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
2-(2,4,5-Trichlorophenoxy) Propionic Acid (1)	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Total Trihalomethanes	µg/L	1 x / year in years 2024,2025,2026 of permit term	Discrete
Uranium	µg/L	1 x / year in years 2024,2025,2026 of permit term	24-hour Composite
Xylenes	µg/L	1 x / year in years 2024,2025,2026 of permit term	Discrete

Footnotes

- 1 There may be no approved wastewater methods for analyses of these parameters in 40 CFR 136. As such, 500 series drinking water methods may be used; in this case, a 10X sample dilution is acceptable for these parameters. Appropriate data qualifiers are to be used.
- 3 If no Arizona Department of Health Services (ADHS) - certified analytical methods exist for these parameters, monitoring is not required.

E. Alternate Sampling Schedule

13 months after issuance of the permit the permittee shall submit one year of data for arsenic and nitrate parameters listed in Table 1 as well as Upstream and Downstream locations as specified in Part V.A.6. The submittal shall be in tabular form, for example an Excel document. The submittal shall be sent to ADEQ at AZPDES@azdeq.gov.

25 months after issuance of the permit ADEQ will review data for all parameters listed in Table 2, and Tables 3.a – 3.f. ADEQ will timely evaluate the data and the permittee is advised ADEQ review of data could potentially trigger a finding of reasonable potential with the need to modify this permit to add or modify limits.

F. 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-taste or odor in drinking water;
 - d. Cause off-flavor in aquatic organisms;
 - e. Are toxic to humans, animals, plants or other organisms;
 - f. 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;
 - g. Change the color of the surface water from natural background levels or color.
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 be free from the 126 priority pollutants (except for chromium and zinc) which may be contained in chemicals added for cooling tower maintenance. The list of priority pollutants are provided in Appendix A to Part 423 of 40 CFR which is incorporated by reference in A.A.C. R18-9-A905 (A)(9).
4. The discharge shall be free from polychlorinated biphenyl compounds (PCBs) such as those commonly used for transformer fluid.

PART II. MONITORING AND REPORTING

A. Sample Collection and Analysis

1. Samples taken for the monitoring requirements specified in Part I shall be collected at the following locations:
 - a. End of Pipe (EOP) – AFGS effluent samples shall be taken after the last addition of flow and prior to discharge from Outfall 001 to the SRP Lateral 20 System.
 - b. Upstream of the mixing zone in the Grand Canal (background sample) – Upstream samples for arsenic and nitrate shall be taken at the foot bridge near W. Campbell Avenue and N. 71st Avenue.
 - c. Downstream of the mixing zone in the Grand Canal – Downstream samples for arsenic and nitrate shall be taken approximately one mile downstream of the primary use outfall (“91st Avenue Outfall”) from the overpass located 99th Avenue and Cardinals Way, which is located upstream of the turnout to Lateral 2-23 System.
2. The permittee is responsible for the quality and accuracy of all data required under this permit.
3. 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, 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.
4. 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 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.
5. 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, FAC 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.4.a.), shall meet quality control standards specified in the approved methods.
 - d. The permittee shall use 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 LOQ.
 - e. The permittee shall use a standard calibration curve when applicable to the method, where the lowest standard point is equal to or less than the LOQ.
6. Mercury Monitoring - The permittee shall use an ADHS-certified low-level mercury analytical method such as EPA method 245.1 (cold vapor, manual) or 163 IE (Purge and Trap CVAFS) to achieve a reporting limit at or below the discharge limitations or assessment levels for mercury as specified in this permit. The

permittee shall also use a “clean hands/dirty hands” sampling technique such as EPA Method 1669 if necessary to achieve these reporting limits.

7. 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.
8. 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. 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. The reports required to be electronically submitted include, but are not limited to, the following:
 - a. Discharge Monitoring Reports;
 - b. Original copies of laboratory results;
 - c. AZPDES discharge flow records;
 - d. Bench sheets or similar documentation for field testing parameters.
3. 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

4. For the purposes of reporting, the permittee shall use the Limit of Quantitation.
5. 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 Table 4.

6. 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 Table 5.

Table 4. 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 5. 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	<p>All samples collected in the same calendar month must be averaged.</p> <ul style="list-style-type: none"> • 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

7. 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.
3. 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;
 - h. Summary of data interpretation and any corrective action taken by the permittee.

PART III. BIOSOLIDS / SEWAGE SLUDGE REQUIREMENTS

Not Applicable.

PART IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

Not Applicable.

PART V. SPECIAL CONDITIONS

A. Mixing Zone

Mixing Zone for Arsenic and Nitrate

The permittee submitted a request with supporting documentation to establish a mixing zone for arsenic and nitrate in the receiving water (Grand Canal) as per A. A. C. R18-11-114 (B). Pursuant to A. A. C. R 18-11-114 (A). ADEQ reviewed the application and granted a mixing zone. Discharges from AFGS into the Grand Canal from AFGs via the Lateral 20 System contains arsenic and nitrate in concentrations that exceed the applicable standards.

The mixing zone was approved based on dilution of arsenic and nitrate in the facility discharges in the Grand Canal. This permit establishes a mixing zone for arsenic and nitrate by using data provided in the *Sampling and*

Analysis Summary Report dated December 2022. The analysis of discharges into the Grand Canal using a steady-state mass balance model indicated there would be no reasonable potential for arsenic and nitrate to exceed the applicable water quality standard.

Mixing Zone Conditions

1. The boundary of the mixing zone begins in the Grand Canal at the Lateral 20 located near 75th Avenue (“75th Ave. Outfall”) and extends approximately 3.4 miles downstream to the sampling point located at the 99th Avenue overpass. The turnout to Lateral 2-23 is located approximately 30 feet downstream of the 99th Avenue sampling location.
2. The permittee shall monitor and report for arsenic and nitrate, as required by Part 1.A of the permit for effluent monitoring for the mixing zone.
3. When the Grand Canal goes into dry-up, discharges from AFGS shall not be conveyed to the Goodyear WTP. Discharges from AFGS may be used for agricultural purposes.
4. The permittee shall develop a sampling program which includes locations at AFGS Outfall 001 and along the Grand Canal - both upstream and downstream of the points where the Lateral 20 System discharges to the Grand Canal.
5. If the permittee intends to retain and/or reestablish the mixing zone for arsenic and nitrate in future permits, the permittee shall conduct a new mixing zone study to be completed and submitted with the permit renewal. The study shall consider the requirements of A. A.C. R18-11-114 (D) and (G).
6. Mixing zone monitoring shall be conducted as specified below:

Parameter	Frequency	Sampling Locations (1)(2)		
		Upstream	Downstream	Discharge (EOP)
Arsenic	1 x / month	X	X	X
Nitrate	1 x / month	X	X	X
Discharge Flow	1 x / month			X
Receiving Water Flow (3)	1 x / month	X		

Footnotes:

1. Sampling locations are as specified above in Part II.A.1.
2. “X” means sample is required.
3. Upstream flow values are obtained by totaling flows from the three main gauging stations located near the terminus of the Grand Canal and subtracting measured flow contributions from the Lateral 20 System during the times of sampling.
7. In the Grand Canal at both upstream and downstream sampling locations three (3) depth- discrete samples shall be collected and composited for analysis. Discrete samples for composition will be collected across the depth of the Canal which indicates well-blended flow in Canal.
8. All surface water monitoring shall be conducted as required by Part II of this permit.
9. RO system operations shall be adjusted such that RO Reject could discharge concurrently with other AFGS wastewater discharges.

B. Stormwater Pollution Prevention Plan Requirements

The permittee shall review the existing Stormwater Pollution Prevention Plan (SWPPP) for the AFGS on an annual basis, and revise it as necessary to ensure that it fully and accurately addresses all the following

provisions. Any updates or revisions needed shall be completed within 90 days of the effective date of this permit.

1. Pollution Prevention Team

The SWPPP shall identify individuals at SRP that are members of a stormwater Pollution Prevention Team who are responsible for assisting the facility management in 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.

2. Description of Potential Pollutant Sources

The SWPPP shall describe and identify all sources at the facility which may reasonably be expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants outside the property boundary during dry weather conditions. These shall include all activities and exposed materials which may potentially be a significant source of pollutants. 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.

1. Drainage and Run-off Locations

- a. The SWPPP must contain a drainage area site map which identifies the locations of any of the following activities or sources which may be exposed to precipitation/surface runoff: storage tanks, scrap yards, 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 material, paint, water treatment chemicals, fertilizer and pesticides); landfills, construction sites; stock piles areas (e.g., coal or limestone piles).
- b. The SWPPP must contain a facility map depicting each stormwater outfall. The SWPPP shall also clearly provide narrative of each stormwater outfall and identify the types of pollutants that are likely to be present in the stormwater discharges at each designated outfall. Factors to consider include the toxicity of a chemical; quantity of chemicals used, produced or discharged; and the likelihood of contact with storm water. Flows with a significant potential for causing erosion shall be identified.

2. Inventory of Exposed Materials

The SWPPP shall include 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; method and location of onsite storage and/or disposal; materials management practices employed to minimize contact of materials with stormwater runoff; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

3. Potential Pollutant Sources from Onsite Activities

The SWPPP shall include a description of the potential pollutant sources 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.

4. Spills and Leaks

The SWPPP shall contain a list of significant spills and/or leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a stormwater conveyance at the facility since the issuance of this permit. This list shall be reviewed and updated, as appropriate, at least annually.

5. Sampling Data

A summary of existing discharge sampling data describing pollutants in stormwater discharges from the facility, including a summary of sampling data collected during the term of this permit (see Part V.B for stormwater monitoring not required).

3. Measures and Controls

SRP shall develop and implement effective stormwater management controls for all identified potential sources of pollution. 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. The controls shall include at least the following components:

1. Good Housekeeping

Good housekeeping requires the maintenance of areas which may contribute pollutants to storm water discharges in a clean, orderly manner. The following areas must be specifically addressed:

a. Bulk Liquid and/or Chemical Delivery Vehicles

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from delivery vehicles arriving on site. The SWPPP should detail the following:

- i. Procedures for the review of delivery vehicles to ensure overall integrity of the body or container; and
- ii. Procedures to deal with leakage or spillage from vehicles or containers. The SWPPP should also identify the nature and location of protective measures available for personnel and environment.

b. Fuel Oil Unloading Areas

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from fuel oil unloading areas. SRP must implement the following measures, or an equivalent:

- i. Use of containment curbs in unloading areas;
- ii. Personnel familiar with spill prevention and response procedures must be present during deliveries to ensure that leaks or spills are immediately contained and cleaned up; and
- iii. Use of spill and overflow protection (drip pans, drip diapers, and/or other containment devices shall be placed beneath fuel oil connectors to contain any spillage that may occur during deliveries or due to leaks at such connectors).

c. Chemical Loading / Unloading Areas

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from chemical loading/unloading areas. SRP must implement the following measures, or an equivalent:

- i. Where practicable, chemical loading/unloading areas are to be covered, and chemicals are to be stored indoors;
- ii. Use of containment curbs at chemical loading/unloading areas to contain spills; and
- iii. Personnel familiar with spill prevention and response procedures must be present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up.

d. Miscellaneous Loading/Unloading Areas

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from loading and unloading areas.

e. Liquid Storage Tanks

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from above-ground liquid storage tanks. Liquid storage areas for Section 313 water priority chemicals must have secondary containment for at least the entire contents of the largest tank plus sufficient freeboard to allow for the 25-year, 24-hour precipitation event and a strong spill contingency and integrity testing plan. In addition, SRP must implement the following measures, or an equivalent, for any above-ground liquid storage tanks:

- i. Use of protective guards around tanks;
- ii. Use of containment curbs;
- iii. Use of spill and overflow protection (drip pans, drip diapers, and/or other containment devices shall be placed beneath chemical connectors to contain any spillage that may occur during deliveries or due to leaks at such connectors); and
- iv. Use of dry cleanup methods.

f. Large Bulk Fuel Storage Tanks

The SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from bulk fuel storage tanks. SRP must implement the following measures:

- i. Compliance with applicable State and Federal laws, including Spill Prevention Control and Countermeasures (SPCC); and
 - ii. Use of containment berms, or equivalent.
- g. Oil or Chemical Spill

The SWPPP must describe or reference the appropriate section of the facility's SPCC plan that describes the measures that prevent or minimize the potential for an oil or chemical spill. SRP must implement the measures described. The structural integrity of all above ground tanks, pipelines, pumps and other related equipment shall be visually inspected on at least a monthly basis. All repairs deemed necessary based on the findings of the review shall be completed immediately to reduce the incidence of spills and leaks occurring from such faulty equipment.

- h. Oil Bearing Equipment in Switchyards

If applicable, the SWPPP must describe, and SRP must implement, measures that prevent or minimize the potential for contamination from oil bearing equipment in switchyard areas.

- i. Vehicle Maintenance Activities

If vehicle maintenance activities are performed on the plant site, SRP shall minimize contamination of stormwater runoff from all areas used for vehicle / equipment maintenance.

- ii. Material Storage Areas

The SWPPP must describe, and SRP must 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 stored in lay down areas).

2. Preventive Maintenance

The SWPPP must describe, and SRP must implement, a preventive maintenance program that includes timely inspection and maintenance of stormwater management devices (e.g., oil/water separators). SRP shall also routinely inspect and test facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and shall ensure appropriate maintenance of such equipment and systems.

3. Spill Prevention and Response Procedures

The SWPPP shall describe, and SRP shall implement, specific material handling procedures, storage requirements, and use of equipment such as diversion valves if applicable, to prevent spills. The SWPPP shall describe procedures for cleaning up spills, and SRP shall train appropriate SRP personnel to implement these procedures. SRP shall ensure that equipment necessary to implement a clean-up is available to SRP personnel. (Note: these training and equipment requirements do not apply to third-party spill response contractors).

4. Stormwater Inspections

- a. SRP shall identify qualified facility personnel to:

- i. Assess the integrity of stormwater discharge diversions, conveyance systems, sediment control and collection systems, and containment structures at least monthly and after significant storm events; visually inspect sediment and erosion BMPs to determine if soil erosion has occurred at least monthly and after significant storm events;
 - ii. Visually inspect storage areas and other potential sources of pollution for evidence of actual or potential discharges of contaminated storm water at least monthly and after significant storm events;
 - iii. Inspect material handling, and unloading and loading areas daily whenever loading or unloading industrial activities occur in these areas; and
 - iv. Inspect processing and transport areas at least monthly to assess the effectiveness of practices to minimize drippage of treatment chemicals on unprotected soils and areas that will come in contact with stormwater discharges.
- b. Records of inspections shall be maintained onsite. SRP shall implement and maintain an effective system for recordkeeping and tracking of follow-up corrective actions needed and taken in response to inspections. Inspection and related records are subject to review by ADEQ, EPA, and state and local agencies with jurisdiction, and must be retained onsite a minimum of 3 years after the date of the inspection.

5. Employee Training

SRP shall ensure that an effective training program is developed and implemented to inform personnel responsible for stormwater management or implementing activities addressed in the SWPPP. Training shall address topics such as goals of the SWPPP, spill prevention and control, proper handling procedures for hazardous wastes, and good housekeeping and material management practices. SRP must hold this training at least annually and the training agenda and records of employee attendance must be maintained as part of the SWPPP.

6. SWPPP Recordkeeping

The permittee shall include in the SWPPP:

- a. a description of incidents (such as spills, or other discharges) that occur in areas exposed to precipitation;
- b. other information describing the quality and quantity of storm water discharges;
- c. documentation of inspections, maintenance activities, and training activities;
- d. any analytical results available that relate to stormwater discharges on-site; and
- e. other certifications or records required by Part II of this permit.

4. Non-storm Water Discharges (Other than those authorized in Part I)

1. SRP shall test or evaluate for the presence of non-stormwater discharges at the facility and shall include an annual certification in the SWPPP. The certification 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.

2. Except for flows from fire-fighting 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.
3. If SRP is unable to provide the certification required (testing for non-storm water discharges), SRP must notify ADEQ within 90 days of the effective date of this permit. 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.

5. Sediment and Erosion Control

The SWPPP shall identify specific 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. SRP 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. SRP shall employ effective erosion and sediment controls to minimize the discharge of sediments from the site.

6. Management of Runoff

The SWPPP shall describe stormwater management practices used to divert, infiltrate, reuse, or otherwise manage stormwater runoff in a manner that reduces pollutants in stormwater discharges from the site. Measures SRP determines to be reasonable and appropriate shall be implemented and maintained. SRP shall consider the potential for various sources at the facility to contribute pollutants when determining reasonable and appropriate measures.

7. Comprehensive Site Compliance Evaluation

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

1. 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 equipment, shall be made. Site compliance evaluations shall be maintained onsite.
2. 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. SRP must implement any changes to the plan within 12 weeks after the evaluation.

C. Stormwater Monitoring and Reporting Requirements

1. Monitoring

The permittee is authorized to discharge from Outfall 001 as required by section Part I.A of this permit. Stormwater is commingled with combined cooling tower blowdown and low volume wastes at Outfall 001 and requires no separate stormwater discharge monitoring.

2. Visual Assessment of Stormwater Discharges

SRP shall perform and document a visual examination of storm water quality on a quarterly basis during normal operating hours when the facility is discharging stormwater. Visual examination reports must be maintained on-site in the SWPPP. The report shall include the examination date and time, examination personnel, visual quality of the storm water discharge including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution, and probable sources of any observed storm water contamination. A 72-hour window (3 days) is required between measurable (discharging) storm events before another visual examination needs to be performed.

3. Non-Compliance Reporting

SRP shall submit a written notice of non-compliance to ADEQ for any violations of the SWPPP as per part II.C.

D. Chemical Additives

1. Chemical Use

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.

The permittee shall notify ADEQ in writing to AZPDES@azdeq.gov 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.

2. Discharge Prohibitions

1. 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.

2. 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.

3. 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 annual summary shall include an evaluation of what measures the permittee has taken to ensure that the 126 priority pollutants (except for chromium and zinc) are not present in the discharge, in accordance with Part I.E.3.

E. Cooling Water Intake Structure

Section 316(b) of the Clean Water Act requires that permits for facilities with cooling water intake structures (CWIS) ensure that the location, design, construction, and capacity of the structures reflect the best technology available (BTA) to minimize harmful impacts on the environment. Updated CWIS rules were promulgated on August 29, 2014, and became effective on October 14, 2014. The updated rule established requirements under section 316(b) of the CWA for existing power generating facilities that are designed to withdraw more than 2 million gallons per day of water from waters of the United States and use at least 25% of the water they withdraw exclusively for cooling purposes. The AZPDES Program Standards cited in A.A.C R18-9-A905 have incorporated by reference the July 1, 2003, section 40 CFR 125, subpart I, the requirement applicable to new cooling water intake structures. The newly promulgated 40 CFR, subpart J that sets requirements for existing facilities has not been incorporated by reference in the AZPDES Program Standards. AFGS has an emergency cooling water intake structure (CWIS) which consists of a manually operated valve that is connected to SRP Lateral 20, a concrete pipe used to distribute surface water from the Arizona Canal for local agricultural use. When the valve is opened, water can be transferred from Lateral 20 to AFGS make up water ponds. SRP has indicated the CWIS connected to SRP Lateral 20 has never been employed in the approximately 60 years the facility has been in operation to supply cooling water to the AFGS. The effluent limitation guidelines and standards in A.A.C R18-9-A905(8)(a) incorporates by reference the general provisions for CWIS listed in 40 CFR 401.14. ADEQ has made the determination that AFGS does not need to submit the application requirements for the existing CWIS because the CWIS has never been utilized and it only exists in case of an emergency. Since the CWIS does not meet the 2 MGD threshold, nor is emergency and fire suppression capacity included in design intake flow, ADEQ has made a BPJ determination that the CWIS is not subject to the requirements listed in 40 CFR 122.21.

F. Reopener

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

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).
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.
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.
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.
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.
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. This may be laboratory dependent and is developed according to R9014-615(C)(7).
Method Detection Limit (MDL)	See LOD
Mixing Zone	An area where an effluent discharge undergoes initial dilution and may be extended to cover the secondary mixing in the ambient waterbody. A mixing zone is an allocated impact zone where water quality criteria can be exceeded as long as acutely toxic conditions are prevented.
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 <i>E. coli</i> 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.
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.
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.
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.
Waters of the United States (WOTUS)	Waters of the United States (WOTUS) means protected surface waters that are also navigable waters as defined by Section 502(7) of the Clean Water Act.
WOTUS Protected Surface Water	WOTUS protected surface water- means a protected surface water that is a WOTUS.

Appendix B. AZPDES Discharge Flow Record

SRP Agua Fria Generating Station—AZ0023531			
Discharge to SRP's Irrigation Lateral 20 in the Middle Gila River Basin at:			
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

- 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. 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, treasurer, 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 discharges 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 judgement 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)(1) 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).
 - 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. 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));
 - 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 - [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 discharges 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.
- 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 be 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.

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