

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is an electric power generating station and thus is considered to be a major facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 *et seq.* This permit is proposed to be issued for a period of 5 years.

I. PERMITTEE INFORMATION	
Permittee's Name:	Salt River Project Agricultural Improvement and Power District (SRP)
Permittee's Mailing Address:	P. O. Box 52025 Mail Station: AFS200 Phoenix, Arizona 85072
Facility Name:	Agua Fria Generating Station (AFGS)
Facility Address or Location:	7302 West Northern Avenue Glendale, Arizona 85303
County:	Maricopa County
Contact Person(s): Phone/e-mail address	Robert Ellis, Director (602) 236-0034 / bob.ellis@srpnet.com
AZPDES Permit Number:	AZ0023531
Inventory Number:	100774
LTF Number:	91544

II. STATUS OF PERMIT(S)	
AZPDES permit applied for:	Renewal
Date application received:	October 8, 2021
Date application was determined administratively complete:	November 8, 2021
Previous permit number (if different):	N/A
Previous permit expiration date:	May 29, 2022

208 Consistency:

In accordance with A.A.C. R18-9-A903(6), a permit cannot be issued for any discharge inconsistent with a plan or plan amendment approved under section 208(b) of the Clean Water Act.

208 Plan consistency is not required for industrial facilities.

SRP has the following permits issued by ADEQ applicable to the Agua Fria Generating Station:

Type of Permit

Resource Conservation and Recovery Act (RCRA – Hazardous Wastes)	AZD000628560	Regulates the management of hazardous wastes.
Title V – Air Quality Permit	P0007595	Designed to standardize air quality permits.

III. GENERAL FACILITY INFORMATION

Type of Facility:	Major Industrial (Electric Generating Power Plant)		
Facility Location Description:	AFGS is located at 7302 W. Northern Avenue, Glendale, Arizona 85303		
Applicable Treatment Processes:	Raw water is used directly for cooling tower makeup. High purity water is used for the steam boilers, previously existing combustion turbines and newly added LM6000 combustion turbines; and is processed from raw water through a series of multimedia (sand and glass) filters, water softener vessels, reverse osmosis (RO) membranes and a demineralizer system to remove suspended and dissolved solids to produce an essentially mineral free water.		
Nature of facility discharge:	Multimedia filter backwash, water softener rinse water, RO reject water, demineralizer reject water (from raw water treatment processes) and air washer drainage water (from combustion turbines) are sent to the outfall via the AFGS' drainage system. All these wastewaters constitute low volume wastes ("LVW"). Various other LVWs from sinks and floor drains, heat exchanger, water test laboratory sink, maintenance shop, raw water overflow from the storage ponds, and boiler blowdown are generated from any combination of the three steam units within AFGS and are comingled before ultimately discharging to Outfall 001. All floor drains are routed through one of two 1,000-gallon oil/water separators (OWS) prior to discharge. Discharges specific to the new LM6000's includes the waste stream from the dedicated OWS. Oil is removed from the OWS and is recycled or disposed of offsite.		
	Operation	Maximum Flow GPD	Treatment Description
	Units No. 1 ,2, and 3 Blowdown and Drains.	233,208	None

	Reverse Osmosis, Softener and Portable Demineralizer Reject and drains.	183,160	Water purification
	Units No.1, 2, and 3 Cooling Tower blowdown and maintenance flows	3,155,000	None
	Storage pond overflow	3,000	None
	Oil / Water Separator (Interceptors)	47,700	Oil / Water Separator gravity fed
	Chemical Building and Gas Turbines Air Washer Drains	2	None
Continuous or intermittent discharge:	Continuous		
Discharge pattern summary:	N/A		
<p>AFGS is currently the site of six (6) electric generating units; three (3) are conventional steam units and three (3) are simple cycle gas combustion turbines. Units 1, 2, and 3 are steam electric boilers. Units 1 and 2 commenced operation in the late 1950's and are each rated at approximately 113MW. Unit 3 began operation in 1961 and is rated at approximately 181 MW. Each of these units has a mechanical induced draft cooling tower. Units 4, 5, and 6 are simple cycle combustion turbines. All three units commenced operation in the mid 1970's. Units 4, 5 and 6 are rated at approximately 69 MW. In addition to the six (6) currently permitted electric generating units, SRP completed construction of two-natural gas-fired simple cycle "aeroderivative" combustion turbines in 2022. These new LM6000 combustion gas turbines ("peaker units") are identified as Unit 7 and Unit 8 and combined add approximately 99 MW generating capacity to AFGS.</p> <p>Source water used for power production is obtained from five groundwater wells located within and outside the AFGS property boundary. These source waters contain naturally high levels of certain constituents, which is typical for the region where AFGS is located. Additionally, in case of emergency, source water is also available through a connection to the SRP Lateral 20 system. Water is pumped to two onsite raw water storage ponds. Pumping rates are regulated to control pond levels, with high level overflows discharging into the south drainage ditch. The storage ponds provide the make-up to the AFGS process water systems.</p> <p>Wastewater generated at AFGS is transported via pipe and through two lined, open ditches (North Drainage Ditch and South Drainage Ditch) to the west side of the property where flows are combined inside a 30" pipe prior to discharge to the SRP Lateral 20 system at Outfall 001.</p> <p>The three steam units, including cooling towers, are operated when power demands are high, during power system emergencies or when more economical energy sources are not available. The cooling tower water is treated with a variety of materials to retard algae growth and to reduce the corrosive and scaling action of the water. Blowdown of the cooling towers occur as dissolved solids build up from evaporation. Several conditioners and corrosion inhibitors are also used to pretreat boiler water in low concentrations. Cooling Tower blowdown from the steam unit boilers provides significant wastewater flow. Wastewater from the three combustion turbines consists of insignificant drainage from the air washers. Air washers utilize demineralized water and no chemicals are introduced. The unit load and related wastewater discharges will vary with power system demands.</p>			

A portion of the water used by AFGS must be treated before use in the steam unit boilers or combustion turbine air washers (evaporative coolers), or in the newly added LM6000 turbines. The raw water is first processed through the RO system and then transported through a demineralizer. Regeneration of demineralizer unit (resins) is done offsite by a third party. Multimedia filter backwash, water softener rinse water, and RO reject water are sent to the outfall via AFGS' drain system as an LVW.

Currently, an estimated maximum wastewater flow of 3.543 MGD is discharged to the SRP Lateral 20 at Outfall 001. When considering the maximum operating condition for the two new units, the new process could increase the discharge rate from outfall 001 by as much as 2.8% which is approximately 3.642 MGD.

On-site stormwater flows are routed to the North or South drainage ditches. The AFGS area is approximately 62 acres, 12 acres are contained by berms, leaving a runoff area of 50 acres. Based on a 10-year, one-hour event and using the Rational Method, the calculated peak stormwater discharge is 70 cubic feet per second.

IV. RECEIVING WATER

The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.

<p>Receiving Water (Federal):</p>	<p>All discharges from SRP's Agua Fria Generating Station (AFGS) enter the facility's South or North Ditch and commingle into one wastewater stream before discharging to SRP Irrigation Lateral 20 System via Outfall 001. The Lateral 20 System connects to the SRP Grand Canal (Part of Phoenix Area Canals). The Phoenix Area Canals are included as surface waters in Appendix B of the Arizona Water Quality Standards for Surface Waters (Title 18, Chapter 11, Article 1).</p> <p>A new municipal Water Treatment Plant (WTP) was recently constructed at the tail end of the SRP Canal and Lateral System. The WTP receives water from the Grand Canal via SRP Lateral 2-23. The intake of the WTP is located approximately 15 miles downstream of AFGS Outfall 001. Based upon designated uses of the Grand Canal, ADEQ applied Domestic Water Supply (DWS) and Agricultural criteria - Agricultural Irrigation (AgI) and Agricultural Livestock Watering (AgL) standards to the discharges from AFGS. Discharges may be put to beneficial reuse throughout the Lateral 20 System and any undelivered discharges comingle with flows in the Grand Canal. In addition to providing surface waters to the downstream WTP, flows diverted from the Grand Canal into Lateral 2-23 are used for agricultural purposes and subject to agricultural return flows prior to reaching the WTP intake.</p>
<p>River Basin:</p>	<p>Middle Gila Watershed</p>
<p>Outfall Location(s):</p>	<p>Outfall 001: Township 3 N, Range 1 E, Section 36 Latitude 33° 33' 17.5" N, Longitude 112° 13' 10.4" N</p>

Designated uses for the receiving water listed above:	Agricultural Irrigation (Agl) Agricultural Livestock Watering (AgL) Domestic Water Supply (DWS)
Is the receiving water on the 303(d) list?	No, and there are no TMDL issues associated.
Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.	

V. DESCRIPTION OF DISCHARGE		
Because the facility is in operation and discharges have occurred, effluent monitoring data are available. The following is the measured effluent quality reported in the application.		
Parameters	Units	Maximum Daily Discharge Concentration
Flow	MGD	8.7
Total Suspended Solids (TSS)	mg/L	18
pH	S.U.	6.48(min) - 8.90(max)
Arsenic	µg/L	97
Barium	µg/L	320
Boron	mg/L	0.567
Bromide	mg/L	0.614
Chromium, total	µg/L	60.5
Chlorine, Total Residual	mg/L	0.06
Copper	µg/L	137
Fluoride	mg/L	0.826
Iron	µg/L	160
Lead	µg/L	1.2
Magnesium	mg/L	186
Manganese	µg/L	< 20
Nickel	µg/L	< 2
Nitrate-Nitrite (as N)	mg/L	35.2
Selenium	µg/L	9.25

Sulfate	mg/L	608
Zinc	mg/L	56.5
Oil & grease	mg/L	< 2.5
Hardness	mg/L	1410

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

Date of Most Recent Inspection:	September 15, 2021; no potential violations were noted as a result of this inspection. The report made a recommendation to add additional stormwater protection at the stormwater escape point on the southside of the Outfall 001 conveyance.
DMR Files Reviewed:	July 2017 through November 2021
Lab Reports Reviewed:	July 2017 through December 2021
DMR Exceedances:	Chlorine, free Available (FAC) (September 2021)
NOVs Issued:	None
NOVs Closed:	N/A
Compliance Orders:	None

VII. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this permit.

Parameter	Existing Permit	Proposed permit	Reason for change
Reporting Location	Mail in hard copies of DMRs and other attachments	DMRs and other reports to be submitted electronically through myDEQ portal.	Language added to support the NPDES electronic DMR reporting rule that became effective on December 21, 2015.
Twenty-four Hour Reporting of Noncompliance Reporting Hotline phone number	(602) 771-2330	Noncompliance resulting in imminent threat to human health or the environment must be reported to (602) 771-2330, while all other noncompliance must be reported to (602) 771-1440.	Routing emergency calls to the emergency hotline, but all other calls to a non-emergency number.

Domestic Water Supply (DWS) Designated use	Not included	Included	Applied the Domestic Water Source (DWS) designated use because a new municipal Water Treatment Plant (WTP) is below the SRP Lateral 20 System when the Grand Canal is operating under normal conditions.
Arsenic	Discharge characterization	Monitoring and reporting required at AFGS Outfall 001; upstream and downstream of the point where the Lateral 20 system discharges to the Grand Canal (i.e., mixing zone).	Due to changes in designated uses additional compliance monitoring is required.
Nitrate	No monitoring required		
Reasonable potential exists for arsenic and nitrate at the end of pipe for DWS Designated Use. The resulting in-canal pollutant concentration (after complete mixing occurs) calculated from data provided by the permittee excludes the reasonable potential for both the parameters.			
Canal monitoring for Flow, Arsenic, and Nitrate	No in- canal monitoring required	In- canal monitoring required.	In-canal monitoring is required to ensure approved mixing and dilution occurring in receiving water and protective of applicable designated uses.
Barium, Boron, Bis (2-Ethylhexyl) Phthalate and Fluoride	No monitoring	Limited	Data submitted indicated reasonable potential (RP) for an exceedance of a standard.

126 priority Pollutants	No monitoring	Discharge characterization monitoring required.	An initial monitor screening during the first two years after the permit's effective date will provide data for ADEQ to analyze potential impacts from the discharges to applicable surface water quality standards. The two-year screen will require reporting for priority pollutants that could be present in the discharges from this type of facility. ADEQ will assess this data for reasonable potential to exceed the applicable surface water quality standard.
Selenium	Limited	Discharge Characterization	Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.
Installation of Two New generating units - Unit 7 and Unit 8	Six Generating Units	Eight Generating units	Added to provide reliable, immediately dispatchable peaking power to serve peak capacity loads and allow the integration of renewable resources to the grid.
Part V.B.2: Quarterly Visual Examination of Stormwater Quality	Required to perform and document visual examination of storm water collected onsite prior to it commingling with industrial flows at the storm water retention basins.	Removed reference to Storm water basins.	Due to the information provided in the renewal application SRP clarified that the facility does not have a storm water retention basin.

Anti-backsliding considerations — “Anti-backsliding” refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns.

Limits for selenium has been removed from the permit because evaluation of current data allows the conclusion that no reasonable potential (RP) for an exceedance of a standard exists.

This is considered allowable backsliding under 303(d)(4). The effluent limitations in the current permit for this parameter was based on state standards, the respective receiving waters are in attainment for these parameters, and the revisions are consistent with antidegradation requirements. See Section XII for information regarding antidegradation requirements.

Limits are retained in the permit for parameters where reasonable potential (RP) for an exceedance of a standard continues to exist or is indeterminate. In these cases, limits will be recalculated using the most current Arizona Water Quality Standards (WQS). If less stringent limits result due to a change in the WQS then backsliding is allowed in accordance with 303(d)(4) if the new limits are consistent with antidegradation requirements and the receiving water is in attainment of the new standard; see Section XII for information regarding antidegradation requirements.

No limits are less stringent due to a change in the WQS in this permit.

VIII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

Technology-based Limitations:

As outlined in 40 CFR Part 423 and incorporated by reference in A. A.C. R 18-9-A905 (A) (9):

The regulations found at 40 CFR §133 require that steam power generating plants achieve specified treatment standards for **pH, TSS, Oil & Grease, Free Available Chlorine (FAC), Chromium, and Zinc** based on the type of treatment technology available. These parameters will be monitored with technology-based effluent limitations (TBELs) as applicable at the outfall.

No detectable amount of any of the 126 priority pollutants may be contained in chemicals added for cooling tower maintenance except for total chromium and total zinc which may be present in the cooling tower blowdown at the maximum levels of 200 and 1,000 µg/L, respectively. Operational conditions under 40 CFR 423.13(d)(2) are not applicable here as there are no Designated Uses (DU) for Aquatic and Wildlife (A&W) in the receiving water. In the case where discharges reach a receiving water with A&W DU, Surface Water Quality Standards are as low as 11 µg/L, but here the facility only has a 4,000 µg/L Domestic Water Source (DWS) DU to comply with. Without the necessity of stringent conditions to protect A&W DU, the operation conditions are not necessary.

The regulations further prohibit discharge of any polychlorinated biphenyl compounds (PCBs) such as those commonly used for transformer fluid. These provisions have been applied on Best Practicable Control Technology (BPT) currently available and Best Available Technology (BAT) economically achievable. Additionally, Part 8.O.7 of the *AZPDES Multi-Sector General Permit for Stormwater Discharges* requires implementation of a Stormwater Pollution plan (SWPPP).

Water Quality-Based Effluent Limitations

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with “reasonable potential” (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. Numeric water quality standards are outlined in A.A.C. R18-11-109 and Appendix A. RP refers to an analysis, based on the statistical calculations using the data submitted or consideration of other factors, to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a “highest estimated value”. This value is then compared to the lowest applicable Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

Reasonable Potential (RP) analysis was done for most of the inorganics, Nitrate, Nitrite, **Volatile Organic Compounds** – Ethylbenzene and Toluene and **Base Neutrals** – Bis (2-Ethyhexy) Phthalate and Naphthalene and **Acid Extractable** – Phenol and other pollutants that have **Arizona Water Quality Standards** – Fluoride and Manganese. Since monitoring was not previously required for Domestic Water Source only limited data is available for RP analysis. For a number of other pollutants, discharge characterization monitoring will be required at a lesser frequency and without established assessment levels (ALs) or numeric limits (Tables 2, 3.a. - 3.f. in the permit). One set of data was submitted for organic compounds (VOCs, base/neutrals and acid extractables) that were all reported as below the laboratory reporting levels.

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the “two-value steady state wasteload allocation” described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

Mixing Zone

Arizona state water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies for and is approved for a mixing zone. SRP has requested a mixing zone for Arsenic and Nitrate and submitted a mixing zone application and a *Sampling and Analysis Summary Report*, both prepared on behalf of SRP by a third-party consultant and dated December 2022. This permit establishes a mixing zone for Arsenic and Nitrate as requested. Since a mixing zone was applied for and granted for Arsenic and Nitrate, the applicable limits for these parameters shall be met within the boundaries of a mixing zone. However, limits for all other water quality criteria shall be met at end-of-pipe (point of discharge).

The following factors in Arizona mixing zone rules listed in A. A. C. R18-11-114 (C) were considered upon approving the request:

Factor	Consideration
Assimilative capacity of the receiving water	Mixing Zone application included water quality data in the Grand Canal between September 2022 through October 2022. Based upon this data, sufficient

	<p>assimilative capacity exists in the Grand Canal for AFGS discharges, as explained below:</p> <ul style="list-style-type: none"> • Highest reported concentration of Arsenic in the Grand Canal was 6.9 µg/L. The lowest applicable surface water quality standard is 10 µg/L. • Highest reported concentration of Nitrate in the Grand Canal was 2,800 µg/L. The lowest applicable surface water quality standard is 10,000 µg/L.
Likelihood of adverse human health effects	A complete and rapid mixing is assumed with downstream concentrations, beyond the mixing zone, remaining below the domestic water source standards.
Location of drinking water plant intakes and public swimming areas	The nearest drinking water intake is approximately 9.9 miles downstream of the downstream mixing zone sampling location, or approximately 15.2 miles downstream from the AFGS discharge location at Outfall 001. Swimming is not permitted in the Phoenix Area Canals.
Predicted exposure of biota and the likelihood that resident biota will be adversely affected	There are no applicable aquatic and wildlife (A&W) designated uses for the receiving water.
Bioaccumulation	The mixing zone request did not include any of the bioaccumulative pollutants listed in A. A. C. R18-11-114 (H).
Acute Toxicity within the mixing zone	There are no applicable aquatic and wildlife designated uses for the receiving water.
Known or predicted safe exposure levels for the pollutant for which the mixing zone is granted	There are no applicable Partial Body contact (PBC) or Full Body Contact (FBC) designated uses for the Phoenix Area Canals receiving water.
Size of the mixing zone	The mixing zone is as small as practicable.
Location of the mixing zone relative to biologically sensitive areas in the surface water	Not applicable.
Concentration gradient of the pollutant within the mixing zone	A complete and rapid mix is assumed.
Sediment deposition	None.
Potential for attracting aquatic life to the mixing zone	Not applicable.
Cumulative impacts of other mixing zones and other discharges to the surface water	Not applicable.
<p>The following Steady-state mass balance formula was use to determine reasonable potential for Arsenic, and Nitrate in consideration of the applicant’s request to establish the mixing zone:</p> $Q_s C_s + Q_d C_d = Q_r C_r$ <p>Where: Q_s = background in-stream flow above discharge point during critical conditions (Harmonic mean flow for Human Health criteria) C_s = background in-stream concentration (Arsenic or Nitrate concentration) Q_d = Long term average flow from Facility</p>	

C_d = highest estimated maximum effluent concentration for Arsenic or Nitrate (using the highest reported value from the *Sampling and Analysis Summary Report* dated December 2022, submitted to ADEQ)

Q_r = critical downstream receiving water flow

C_r = resultant in-stream pollutant concentration

Model Results (Arsenic):

Q_s = Harmonic mean flow from *Sampling and Analysis Summary Report* dated December 2022, submitted to ADEQ = 19.77 mgd

C_s = Maximum Arsenic concentration from upstream sampling location above discharge point = 6.9 µg/L

Q_d = Long term average flow from facility = 0.45 mgd

C_d = Calculated critical effluent concentration (used the data provided from *Sampling and Analysis Summary Report*) = 34.98 µg/L

Q_r = Harmonic mean flow plus long-term average flow from facility = 20.21 mgd

C_r = Resultant in-canal concentration = 7.53 µg/L

RP is determined based on the projected maximum receiving water concentration at the edge of the mixing zone. This is determined by solving for C_r using the critical inputs into the steady-state mass balance formula. Solving for C_r to determine RP yields:

$$C_r = \frac{Q_s C_s + Q_d C_d}{Q_r}$$

$$C_r = 7.53 \mu\text{g/L}$$

Because the C_r value of 7.53 µg/L is less than the Arsenic standard of 10 µg/L it was determined that there would not be RP for an exceedance of the domestic water source Arsenic standard.

Model Results (Nitrate):

Q_s = Harmonic mean flow from *Sampling and Analysis Summary Report* dated December 2022, submitted to ADEQ = 19.77 mgd

C_s = Maximum nitrate concentration from upstream sampling location above discharge point = 2,800 µg/L

Q_d = Long term average flow from facility = 0.45 mgd

C_d = Calculated critical effluent concentration (used the data provided from *Sampling and Analysis Summary Report*) = 127,431 µg/L

Q_r = Harmonic mean flow plus long-term average flow from facility = 20.21 mgd

C_r = Resultant in-canal concentration = 5,574 µg/L

RP is determined based on the projected maximum receiving water concentration at the edge of the mixing zone. This is determined by solving for C_r using the critical inputs into the steady-state mass balance formula. Solving for C_r to determine RP yields:

$$C_r = \frac{Q_s C_s + Q_d C_d}{Q_r}$$

$$C_r = 5574 \mu\text{g/L}$$

Because the Cr value of 5,574 µg/L is less than the Nitrate standard of 10,000 µg/L it was determined that there would not be RP for an exceedance of the domestic water source Nitrate standard.

Assessment Levels (ALs)

ALs are listed in Part I.B of the permit. An AL differs from a discharge limit in that an exceedance of an AL is not a permit violation. Instead, ALs serve as triggers, alerting the permitting authority when there is cause for re-evaluation of RP for exceeding a water quality standard, which may result in new permit limitations. The AL numeric values also serve to advise the permittee of the analytical sensitivity needed for meaningful data collection. Trace substance monitoring is required when there is uncertain RP (based on non-detect values or limited datasets) or a need to collect additional data or monitor treatment efficacy on some minimal basis. A reopener clause is included in the permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the permit according to A.A.C. R18-11-104(C) and Appendix A. ALs listed for each parameter were calculated in the same manner that a limit would have been calculated (see **Water Quality-Based Effluent Limitations section above**).

Whole Effluent Toxicity (WET)

ADEQ does not require WET testing if the receiving water has no aquatic and wildlife designated uses. Although the narrative standard prohibiting the discharge of toxic pollutants applies to all discharges, the test species are not appropriate for these receiving waters and no alternative tests are readily available. Therefore, WET testing is not required in this permit, and Part IV for WET testing is shown as “not applicable.”

Discharge Characterization (DC)

In addition to monitoring for parameters assigned either a limit or an AL, sampling is required to assess the presence of pollutants in the discharge at certain minimum frequencies for additional suites of parameters, whether the facility is discharging or not. This monitoring is specified in Tables 3.a. through 3.f., *Effluent Characterization Testing*, as follows:

- Table 3.a.—General Chemistry and Microbiology: ammonia, BOD-5, *E. coli*, total residual chlorine (TRC), dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate/nitrite, oil and grease, pH, phosphorus, temperature, total dissolved solids (TDS), and total suspended solids (TSS)
- Table 3.b. —Selected Metals, and Trace substances
- Table 3.c. —Selected Volatile Organic Compounds
- Table 3. d. —Selected Acid-Extractible Compounds
- Table 3. e. —Selected Base-Neutral Compounds
- Table 3.f. —Additional Parameters Based on Designated Uses (from Arizona Surface Water Quality Standards, Appendix A, Table 1)

NOTE: Some parameters listed in Tables 3.a. and 3.b. may also be listed in Tables 1 or 2 of the permit. In this case, the data from monitoring under Tables 1 or 2 may be used to satisfy the requirements of Tables 3.a. and / or 3.b., provided the specified sample types are the same. In the event the facility does not discharge to a Protected Surface Water during the life of the permit, DC monitoring of representative samples of the effluent is still required.

The purpose of DC monitoring is to characterize the effluent and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii). DC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as A.R.S.

§49-203(A)(7). If pollutants are noted at levels of concern during the permit term, this permit may also be reopened to add related limits or conditions.

Permit Limitations and Monitoring Requirements

Tables 1 and 2 below summarize the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.

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Table 1. Permit limitations and monitoring requirements.

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Receiving Water Designated Uses – DWS, AgI and AgL						
Flow	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
Total Suspended Solids (TSS)	30 mg/L 30-day average 100 mg/L daily maximum Technology-based limits 40 CFR § 423.12 (b)(3) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	18 mg/L	56	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit.
Chlorine, Total Residual (TRC)	4,000 µg/L / DWS	No data	No data	N/A	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine.
Chlorine, Free Available (FAC)	0.2 mg/L 30-day average 0.5 mg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	0.06 mg/L	53	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit
pH	Minimum: 6.5 S.U. Maximum: 9.0 S.U. AgL [A.A.C.R 18-11-109(B)] Also, Technology-based limits 40 CFR § 423.12 (b)(1)	Min: 6.48 S.U. Max: 8.90 S. U.	245	N/A	Technology based limits are always included – AgL standard is more restrictive.	Monitoring required and limits are included in the proposed permit to protect for the designated use of AgL in accordance with A.A.C.R 18-11-109(B).
Oil & Grease	15 mg/L 30-day average 20 mg/L daily maximum Technology-based limits 40 CFR § 423.12 (b)(3) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	< 5 mg/L	51	N/A	Technology-based limit is always included	Monitoring required and a TBEL remains in the permit

Table 1. Permit limitations and monitoring requirements.

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Antimony	6 µg/L / DWS	< 2 µg/L	1	N/A	No RP	Monitoring required for discharge characterization.
Arsenic	10 µg/L / DWS	20 µg/L	12	7.53 µg/L	No RP based on mixing zone model results	Monitoring and reporting is required.
Beryllium	4 µg/L / DWS	< 2 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Boron	1,000 µg/L / Agl	567 µg/L	1	7483 µg/L	RP Exists	Monitoring is required and a WQBEL is set.
Barium	2,000 µg/L / DWS	320 µg/L	1	4223 µg/L	RP Exists	Monitoring is required and a WQBEL is set.
Cadmium	5 µg/L / DWS	< 1 µg/L	10	N/A	No RP	Monitoring required for Discharge characterization.
Chromium (Total)	0.2 mg/L 30-day average 0.2 mg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	60.5µg/L	54	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit.
	100 µg/L / DWS			99.15 µg/L	No RP	
Chromium VI	21 µg/L / DWS	No Data	0	N/A	RP Indeterminate (No Data)	Monitoring required and an assessment level is set in the permit.
Copper	500 µg/L / AgL	137 µg/L	9	433 µg/L	No RP	Monitoring required for Discharge characterization.
Cyanide (as Free cyanide)	200 µg/L / DWS & AgL	< 50 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.

Table 1. Permit limitations and monitoring requirements.

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Lead	15 µg/L / DWS	1.2 µg/L	10	2.6 µg/L	No RP	Monitoring required for Discharge characterization.
Mercury	2 µg/L / DWS	< 0.5 µg/L	10	N/A	No RP	Monitoring required for Discharge characterization.
Manganese	980 µg/L / DWS	< 20 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Nickel	140 µg/L / DWS	< 2 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Selenium	20 µg/L / AgI	9.25 µg/L	54	15 µg/L	No RP	Monitoring required for Discharge characterization.
Silver	35 µg/L / DWS	< 2 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Thallium	2 µg/L / DWS	< 2 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Zinc	1,000 µg/L 30-day average 1,000 µg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	56.5 µg/L	55	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit.
	2100 µg/L / DWS			108.4 µg/L	No RP	

Footnotes:

1. The monitoring frequencies are as specified in the permit.
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Table 2. Permit limitations and monitoring requirements.

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Receiving Water Designated Uses –AgI and AgL						
Flow	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
Total Suspended Solids (TSS)	30 mg/L 30-day average 100 mg/L daily maximum Technology-based limits 40 CFR § 423.12 (b)(3) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	18 mg/L	56	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit.
Chlorine, Free Available (FAC)	0.2 mg/L 30-day average 0.5 mg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	0.06 mg/L	53	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit
pH	Minimum: 6.5 S.U. Maximum: 9.0 S.U. AgL [A.A.C.R 18-11-109(B)] Also, Technology-based limits 40 CFR § 423.12 (b)(1)	Min: 6.48 S.U. Max: 8.90 S. U.	245	N/A	Technology based limits are always included – AgL standard is more restrictive.	Monitoring required and limits are included in the proposed permit to protect for the designated use of AgL in accordance with A.A.C.R 18-11-109(B).
Oil & Grease	15 mg/L 30-day average 20 mg/L daily maximum Technology-based limits 40 CFR § 423.12 (b)(3) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	< 5 mg/L	51	N/A	Technology-based limit is always included	Monitoring required and a TBEL remains in the permit
Arsenic	200 µg/L / AgL	97 µg/L	9	306 µg/L	RP Exists	Monitoring is required and a WQBEL is set.
Boron	1,000 µg/L / Agl	567 µg/L	1	7483 µg/L	RP Exists	Monitoring is required and a WQBEL is set.

Table 2. Permit limitations and monitoring requirements.

Parameter	Lowest Standard/Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/Rationale (1)
Cadmium	50 µg/L / AgI & AgL	< 1 µg/L	10	N/A	No RP	Monitoring required for Discharge characterization.
Chromium (Total)	0.2 mg/L 30-day average 0.2 mg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	60.5 µg/L	54	N/A	Technology-based limits are always included	Monitoring required and a TBEL remains in the permit
Copper	500 µg/L / AgL	137 µg/L	9	433 µg/L	No RP	Monitoring required for Discharge characterization.
Cyanide (as Free cyanide)	200 µg/L / AgL	< 50 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Lead	100 µg/L / AgL	1.2 µg/L	9	3.79 µg/L	No RP	Monitoring required for Discharge characterization.
Manganese	10,000 µg/L / AgI	< 20 µg/L	1	N/A	No RP	Monitoring required for Discharge characterization.
Mercury	10 µg/L / AgL	< 0.25 µg/L	10	N/A	No RP	Monitoring required for Discharge characterization.
Selenium	20 µg/L / AgI	9.25 µg/L	51	15 µg/L	No RP	Monitoring required for Discharge characterization.
Zinc	1,000 µg/L 30-day average 1,000 µg/L daily maximum Technology-based limits 40 CFR § 423.13 (d)(1) incorporated by reference in A.A.C. R18-9-A905 (A)(9).	56.5 µg/L	53	N/A	Technology-based limit is always included	Monitoring required and a TBEL remains in the permit

Footnotes:

1. The monitoring frequencies are as specified in the permit.

VIII. NARRATIVE WATER QUALITY STANDARDS

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Section F of the permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additionally, monitoring may be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Monitoring frequencies for some parameters may be reduced in subsequent permits if all monitoring requirements have been met and the limits or ALs for those parameters have not been exceeded during the first permit term.

For the purposes of this permit, a "24-hour composite" sample has been defined as a flow-proportioned mixture of not less than three discrete samples (aliquots) obtained at equal time intervals over a 24-hour period. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling.

These criteria for composite sampling are included in order to obtain samples that are representative of the discharge given the potential variability in the duration, frequency and magnitude of discharges from this facility.

Discrete (i.e., grab) samples are specified in the permit for parameters that for varying reasons are not amenable to compositing.

Monitoring locations are specified in the permit (Part I.A and Part II.A..1) in order to ensure that representative samples of the influent and effluent are consistently obtained.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.3) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Section B of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), and AZPDES Flow Record forms.

The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

Electronic reporting

The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule required permittees to make electronic submittals of any monitoring reports and

forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

Requirements for retention of monitoring records are detailed in Part II.C.3 of the permit.

X. BIOSOLIDS REQUIREMENTS (Part III in Permit)

Not applicable – This facility is a not a domestic wastewater treatment plant and does not generate biosolids.

XI. SPECIAL CONDITIONS (Part V in Permit)

Mixing Zone for Arsenic and Nitrate

Discharges from AFGS contain Arsenic and Nitrate in concentrations that exceed the Domestic Water Supply (DWS) Standards. 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. The boundary of the mixing zone begins in the Grand Canal at the Lateral 20 outfall located near 75th Avenue and extends approximately 3.4 miles downstream to the sampling point located at the 99th Avenue overpass. The turnout to Lateral 2-23 is downstream of the 99th Avenue sampling location.

The mixing zone was approved on the basis of dilution of the facility discharges with the background concentrations of Arsenic and Nitrate in the Grand Canal to allow for dilution. 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 the discharge 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 while the Grand Canal is operating under normal conditions. When the Grand Canal is in dry-up, surface waters are not conveyed to the downstream water treatment plant; under these conditions, the designated use of the Grand Canal changes from Domestic Water Source to Agricultural criteria standards. During dry-up conditions, discharges from AFGS would be distributed through the Lateral 20 system and then isolated in the Grand canal. As such, the facility discharges would be limited to agricultural use standards only.

Monitoring and reporting for Arsenic and Nitrate samples shall be collected from the Grand Canal at the following locations:

- Upstream of the mixing zone (at the foot bridge located near W. Campbell Avenue and N. 71st avenue) and
- Downstream of the mixing zone (at the 99th Avenue overpass, approximately one mile downstream of the primary use outfall located at N. 91st Avenue and before the turnout to Lateral 2-23, which connects to the drinking water intake approximately 9.9 miles downstream into Lateral 2-23).

Mixing Zone Conditions

1. The boundary of the mixing zone begins in the Grand Canal at the Lateral 20 outfall 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 include locations at AFGS Outfall 001 and locations along the Grand Canal - 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 in Part II.A.1 of the permit.
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.

Stormwater Pollution Prevention Plan and Annual Report

A stormwater pollution prevention plan (SWPPP) will be used in lieu of numeric discharge limitations as allowed by 40 CFR 122.44 (k) to control the potential discharge of pollutants contained in stormwater. The permittee will also be required complete an annual Comprehensive Site Compliance Evaluation and submit a written notice if non-compliance to ADEQ for any violations of the SWPPP.

Chemical Additives

The permit contains requirements for notification, recordkeeping, and reporting of chemical use in operation of the facility.

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 sited 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

Permit Reopener

This permit may be modified 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 [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

XII. ANTIDegradation

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The receiving water is subject to Tier 1 antidegradation protection. Discharge quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

XIII. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XIV. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XV. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Swathi Kasanneni
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Swathi Kasanneni at (602) 771 – 4577 or by e-mail at kasanneni.swathi@azdeq.gov.

XVI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. AZPDES Permit Application Forms 1 and 2C, received October 08, 2021, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
2. Supplemental information to the application received by ADEQ on February 04, 2022, December 21, 2022 and February 20, 2023.
3. ADEQ files on SRP Agua Fria Generating Station.
4. ADEQ Geographic Information System (GIS) Web site
5. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
6. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.
7. Code of Federal Regulations (CFR) Title 40:
 - Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*.
 - Part 124, *Procedures for Decision Making*.
 - Part 133. *Secondary Treatment Regulation*.
 - Part 503. *Standards for the Use or Disposal of Sewage Sludge*.
8. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
9. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.
10. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater*

Organisms (EPA /821-R-02-013).

11. U.S. EPA NPDES Permit Writers' Manual, September 2010.

DRAFT