

## ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a hydroelectric power plant which discharges an average of 0.851 million gallons per day (mgd) of non-domestic wastewater from two sumps and thus is considered to be a minor 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.

|  |   |
|--|---|
| Permittee's Name:                          | U.S. Bureau of Reclamation – Glen Canyon Field Division |
| Permittee's Mailing Address:               | P.O. Box 1477<br>Page, AZ 86040                         |
| Facility Name:                             | Glen Canyon Dam- Power Plant Drainage Sumps             |
| Facility Address or Location:              | 2 miles north of Page on U.S. Highway 89                |
| County:                                    | Coconino  |
| Contact Person(s):<br>Phone/e-mail address | C. Shane Mower<br>(928) 645-0468                        |
| AZPDES Permit Number:                      | AZ0026280   |
| Inventory Number:                          | 105828  |

| <b>I. STATUS OF PERMIT(S)</b>                              |                 |
|--|-----------------|
| AZPDES permit applied for:                                 | Renewal         |
| Date application received:                                 | <b>12/14/16</b> |
| Date application was determined administratively complete: | 1/17/17         |
| Previous permit expiration date:                           | April 24, 2017  |

| The U.S. Bureau of Reclamation has the following permits issued by ADEQ applicable to the Glen Canyon Dam Power Plant: |               |   |
|--|---------------|---|
| Type of Permit   | Permit Number | Purpose                                   |
| Aquifer Protection Permit (APP)  | none          | Regulates discharges to the local aquifer |

|                                    |      |  |
|------------------------------------|------|--|
| Reuse Permit                       | none | Regulates the practice of reusing treated wastewater for beneficial purposes |
| Multi-Sector General Permit (MSGP) | none | Regulates stormwater discharge   |

| <b>II. GENERAL FACILITY INFORMATION</b> |  |
|---|--|
| Type of Facility:                       | Federally owned hydroelectric power plant.   |
| Facility Location Description:          | 2 miles north of Page, AZ on U.S. Highway 89   |
| Estimated Discharge Flow                | 0.85 MGD   |
| County:                                 | Coconino   |
| Treatment Processes:                    | There are oil skimmers in the sump which allow for the removal of any oil that might be present.   |
| Nature of facility discharge:           | The applicant operates two sumps in conjunction with the Glen Canyon Dam and Power Plant. The Power Plant Gravity Drain (PPGD) Sump collects wastewater from various sources upstream of the generating turbines. The PPGD Sump is divided into two chambers, the Collection Chamber and the Pump Chamber. The Collection Chamber receives wastewater from turbine pits (0.447 mgd), penstock invert transition/lawn area between the dam and the power plant (0.211 mgd), plant air compressors cooling water (0.042 mgd), and floor drains if and when floors and galleries in the power plant are flooded. The Pump Chamber has two deep well turbine pumps rated at 1,000 gallons per minute (gpm) each. The pumps operate automatically on a level control system which also has a hydro carbon detection shutdown system. The wastewater that is collected in turbine pits before being discharged to the PPGD Sump includes leakage from various cooling water systems (such as generator air coolers, transformer cooling water, turbine and generator guide bearings cooling water) and cooling/lubrication of the turbine wearing rings, packing boxes, and wicket gate seals on all eight generating units. |
| Average flow per discharge:             | The average estimated flow from this sump is 0.151 mgd.  |
| Continuous or intermittent discharge:   | Discharge occurs only when a generating unit is being dewatered.   |
| Discharge pattern summary:              | The Dewatering Sump collects wastewater from the eight generating units when they are taken out of service for maintenance, which is done approximately once per eight months per unit (on the average one unit is dewatered every month).   |

| <b>III. RECEIVING WATER</b>   |  |
|---|--|
| 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. |  |
| Receiving Water :   | The receiving water for Glen Canyon Dam & Power Plant WWTP Outfall 001 is to the Colorado River. |
| River Basin:  | Colorado - Grand Canyon River Basin.   |

|   |   |
|---|---|
| Outfall Location(s):  | Outfall 001: Township 41N, Range 8E, Section 24<br>Latitude 36° 56' 24" N, Longitude 111° 29' 12" W   |
| The outfall discharges to, or the discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, Chapter 11, Article 1.  |   |
| Designated uses for the receiving water listed above:   | Aquatic and Wildlife cold water (A&Wc)<br>Full Body Contact (FBC)<br>Fish Consumption (FC)<br>Agricultural Irrigation (AgI)<br>Agricultural Livestock watering (AgL)<br>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. There are two standards for the Aquatic and Wildlife uses, acute and chronic. 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. |   |
| In addition to the above, the Colorado River has a salinity standard. Per A.A.C. R18-11-110, the flow-weighted average annual concentration of total dissolved solids shall not exceed 723 milligrams per liter (mg/L) in the river below Hoover Dam and above Parker Dam. In order to meet this standard, discharges must meet the plan of implementation requirements developed by the Colorado River Basin Salinity Control Forum.   |   |

**IV. 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 |
|-------------------------------|-------|---------------------------------------|
| Zinc                          | µg/L  | <20                                   |
| Total Residual Chlorine (TRC) | mg/L  | <0.015                                |
| Total Suspended Solids (TSS)  | mg/L  | <1                                    |
| Oil & Grease                  | mg/L  | <5                                    |

**V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT**

|                                 |  |
|---------------------------------|--|
| Date of most recent inspection: | 12/17/2013; no potential violations were noted as a result of this inspection.   |
| DMR files reviewed:             | 01/2012 through 12/2016  |
| Lab reports reviewed:           | 01/2012 through 12/2016  |
| NOVs issued:                    | January 30, 2017- Did not report DMRs for: 2016 2 <sup>nd</sup> Quarter and 1 <sup>st</sup> Semi-Annual; 2015 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> Quarters and 1 <sup>st</sup> and 2 <sup>nd</sup> Semi-Annual |
| NOVs closed:                    | N/A  |

|                    |      |
|--------------------|------|
| Compliance orders: | None |
|--------------------|------|

**VI. PROPOSED PERMIT CHANGES**

The following table lists the major changes from the previous permit in this draft 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.                                     |
| Thallium, Lead, Arsenic                            | Limited   | Limit removed  | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.  |
| Total Chromium                                     | Assessment Level                                  | EC Monitoring  | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard.  |
| Iron   | No monitoring required                            | Monitoring required and an assessment level set.                             | New standard in 2009.   |
| Total Residual Chlorine (TRC)                      | Limited   | No TRC monitoring required   | Surface water is used for cooling and no chlorine is used throughout the process.   |
| Organic Compounds and pesticides (Tables 4.c- 4.e) | EC Monitoring                                     | Not Required   | ADEQ does not typically require this monitoring for facilities that discharge <0.5 mgd. These parameters are not typically found in this process. |
| Mercury  | Limited   | Permit requires the use of the “clean hands/dirty hands” sampling technique. | Special sampling technique necessary to meet lower surface water quality standards.   |

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 the following parameter have 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:

- Arsenic
- Lead
- Thallium

This is considered allowable backsliding under 303(d)(4). The effluent limitations in the current permit for these two parameters were 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 draft 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.

**VII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS**

When determining what parameters need monitoring and/or limits included in the draft 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 133:

There are no applicable technology-based limitations for this type of discharge. The regulations found at 40 CFR Part 125 authorizes the use of technology-based treatment requirements based on best professional judgment (BPJ) for discharges from facilities for which EPA-promulgated effluent limitations are unavailable (inapplicable). Monitoring with limitations for total suspended solids (TSS) and oil & grease has been added to the permit based on BPJ. Historically, these parameters have been monitored with limitations in the AZPDES permits issued for facilities with similar discharges.

**Numeric Water Quality Standards:** As outlined in A.A.C. R18-11-109 and Appendix A:

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. RP refers to the possibility, 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.

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:** The limits in this permit were determined without the use of a 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. Since a mixing zone was not applied for or granted, all water quality criteria are applied at end-of-pipe.

**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 draft permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the draft permit according to A.A.C. R18-11-104(C) and Appendix A.

**Hardness:** The permittee is required to sample hardness as  $\text{CaCO}_3$  at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 240 mg/L (the average hardness of the receiving stream) was used to calculate the applicable water quality standards and any assessment levels or limits for the hardness dependent metals (cadmium, chromium III, copper, lead, nickel, silver and zinc).

**Whole Effluent Toxicity (WET):** WET testing is required in the draft permit (Parts I.C and IV) to evaluate the discharge according to the narrative toxic standard in A.A.C. R18-11-108(A)(5), as well as whether the discharge has RP for WET per 40 CFR 122.44(d)(iv). At a minimum, the results reported on an AZPDES application must include quarterly testing for a 12-month period within the past year using multiple species or the results from four tests performed at least annually in the 4.5 years prior to the application.

WET testing for chronic toxicity shall be conducted using the following three surrogate species:

- *Ceriodaphnia dubia* (water flea) – for evaluating toxicity to invertebrates
- *Pimephales promelas* (fathead minnow) – for evaluating toxicity to vertebrates
- *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*) (a green alga) – for evaluating toxicity to plant life

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 TUC for a four day exposure period. Using this benchmark, the action levels for WET included in the draft permit were calculated in accordance with the methods specified



in the *TSD*. The species chosen for WET testing are as recommended in the *TSD* and in *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*.

An exceedance of action level will trigger follow-up testing to determine if effluent toxicity is persistent. If toxicity above action level is found in a follow-up test, the permittee will be required to conduct a Toxicity Reduction Evaluation (TRE) and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

The draft permit requires 24-hour composite samples be collected for WET testing. WET sampling must coincide with testing for all the parameters in Parts I.A and B of the draft permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

The required WET monitoring frequency for this facility is consistent with the WET testing frequency required for facilities with a similar design flow. The draft permit requires WET test results to be reported on discharge monitoring reports and submittal of the full WET lab report to ADEQ.

**Effluent Characterization (EC):** 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 4.a. and 4.b., *Effluent Characterization Testing*, as follows:

- Table 4.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 4.b. – Selected Metals, Hardness, Cyanide, and WET

NOTE: Some parameters listed in Tables 4.a. and 4.b. are also listed in Tables 1 or 2. In this case, the data from monitoring under Tables 1 or 2 may be used to satisfy the requirements of Tables 4.a. and / or 4.b., provided the specified sample types are the same. In the event the facility does not discharge to a water of the U.S. during the life of the permit, EC monitoring of representative samples of the effluent is still required.

The purpose of EC 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). EC 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:**

The table that follows summarizes 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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| <b>Table 1. Reasonable potential analysis of applicable parameters for Outfall 001</b> |  |                                     |                       |                                |                             |  |
|--|--|-------------------------------------|-----------------------|--------------------------------|-----------------------------|--|
| <b>Parameter</b>   | <b>Lowest Standard / Designated Use</b>  | <b>Maximum Reported Daily Value</b> | <b>No. of Samples</b> | <b>Estimated Maximum Value</b> | <b>RP Determination</b>     | <b>Proposed Monitoring Requirement/ Rationale (1)</b>  |
| Total Suspended Solids (TSS)   | 30-day average: 30 mg/L<br>Daily maximum: 45 mg/L<br><br>BPJ<br>Technology-based limits                              | <1 mg/L                             | 7                     | N/A                            | N/A                         | Monitoring required and a limit remains.   |
| pH   | Minimum: 6.5 S.U.<br>Maximum: 9.0 S.U.<br>FBC, A&Wc chronic, AgL<br>A.A.C. R18-11-109(B)                             | 8.25                                | 48                    | N/A                            | No RP                       | Monitoring required and a limit remains.   |
| Total Dissolved Solids (TDS)   | 723 mg/L flow-weighted annual average/ A.A.C. R18-11-110<br>Colorado River Basin Salinity Control Forum requirements | 910 mg/L                            | 5                     | N/A                            | No RP                       | Monitoring required and an assessment level is set; both the source water and the effluent shall be monitored for TDS to determine compliance with Colorado River Basin Salinity Control Forum requirements [Mass load < 1 ton/day may apply].                                     |
| Boron  | 1000 µg/L/ Agl   | <100 µg/L                           | 2                     | 370 µg/L                       | No RP                       | Monitoring required for effluent characterization.   |
| Chromium (Total)   | 100 µg/L/ FBC & DWS  | <15 µg/L                            | 13                    | N/A                            | No RP                       | Monitoring required for effluent characterization.   |
| Chromium VI  | 11 A&Wc chronic  | <15 µg/L                            | 8                     | N/A                            | RP Indeterminate (High LOQ) | Monitoring required for effluent characterization.   |
| Copper (2)   | 18.9 µg/L/ A&Wc chronic  | 10 µg/L                             | 15                    | 26 µg/L                        | RP Exists                   | Monitoring required and a limit remains.   |
| Cyanide  | 5.2 µg/L/ A&Wc chronic   | <10 µg/L                            | 13                    | N/A                            | RP Indeterminate (High LOQ) | Monitoring required with an Assessment Level.  |
| Hardness(2)  | No applicable standard. Hardness is used to determine standards for specific metal parameters.                       | 240 mg/L (average)                  | 15                    | N/A                            | N/A                         | A&W standards for cadmium, chromium III, copper, lead, nickel, silver and zinc used for RP determinations were based on the average receiving water hardness value of 240 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required. |
| Lead   | 6.4 µg/L/ A&Wc chronic   | 1 µg/L                              | 15                    | 2.6 µg/L                       | No RP                       | Monitoring required for effluent characterization.   |
| Mercury  | 0.01 µg/L/ A&Wc chronic  | <0.2 µg/L                           | 13                    | N/A                            | RP Indeterminate (High LOQ) | Monitoring required with an Assessment Level.  |
| Selenium   | 2 µg/L/ A&Wc chronic   | 2 µg/L                              | 15                    | 5.2 µg/L                       | RP Exists                   | Monitoring required and a limit remains.   |
| Silver(2)  | 4.4 µg/L/ A&Wc chronic   | <10 µg/L                            | 15                    | N/A                            | RP Indeterminate (High LOQ) | Monitoring required and a limit remains.   |

|                               |   |   |          |   |          |                      |  |
|-------------------------------|---|---|----------|---|----------|----------------------|--|
| Oil & Grease                  | 30-day average: 15 mg/L<br>Daily maximum: 20 mg/L<br>BPJ<br>Technology-based limits |   | <5 mg/L  | 5 | N/A      | No RP                | Monitoring required and a limit remains.           |
| Zinc                          | 246 µg/L/ A&Wc chronic& acute   |   | <20 µg/L | 6 | 148 µg/L | No RP                | Monitoring required for effluent characterization. |
| Whole Effluent Toxicity (WET) | No toxicity (A.A.C. R18-11-108(A)(6) )  | <i>Pseudo-kirchneriella subcapitata</i> (3) | 1.0 TUc  | 1 | N/A      | RP Indeterminate (4) | Monitoring required and an action level is set.    |
|                               |   | <i>Pimephales promelas</i>                  | 1.0 TUc  | 1 | N/A      | RP Indeterminate (4) | Monitoring required and an action level is set.    |
|                               |   | <i>Ceriodaphnia dubia</i>                   | 1.0 TUc  | 1 | N/A      | RP Indeterminate (4) | Monitoring required and an action level is set.    |

Footnotes:

- (1) The monitoring frequencies are as specified in the permit.
- (2) Hardness-dependent metal - the standard for this parameter is based on the average hardness value of the effluent as indicated above.
- (3) Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*.
- (4) Monitoring with ALs or Action Levels always required for WWTPs for these parameters unless RP exists and limits are set.

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### 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, Sections E and F of the draft 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.

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.

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.2) 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, Sections B.1 and 2 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). As of December 21, 2016 (one year after the effective date of the regulation), the Federal rule requires 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.D of the permit.

**X. BIOSOLIDS REQUIREMENTS**

Not applicable.

**XI. SPECIAL CONDITIONS (Part IV in Permit)**

**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 discharge from the Glen Canyon Dam power plant drainage sump will be to a perennial water with Tier 2 antidegradation protection. This is a renewal permit for an existing facility with no new or expanded discharge, and the existing uses have been maintained. Therefore, an antidegradation review is not required at this time. Effluent 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 draft 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 – AZPDES Individual Permits Unit  
Attn: Richard Mendolia  
1110 West Washington Street  
Phoenix, Arizona 85007

Or by contacting Richard Mendolia at (602) 771 – 4374 or by e-mail at [rjm@azdeq.gov](mailto:rjm@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 December 14, 2016, 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 January 11, 2017.
3. ADEQ files on Glen Canyon Dam power plant drainage sump.
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 January 31, 2009.
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.

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