

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a water reclamation supply system pipeline that transports effluent from three wastewater treatment plants, and 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.

I. PERMITTEE INFORMATION	
Permittee's Name:	Arizona Public Service
Permittee's Mailing Address:	Palo Verde Nuclear Generating Station (PVNGS) P.O. Box 52034, M/S 7626 Phoenix, Arizona 85004
Facility Name:	Arizona Public Service (APS) Water Reclamation Supply System (WRSS) Pipeline
Facility Address or Location:	5871 S. Wintersburg Rd. Tonopah, AZ 85354
County:	Maricopa
Contact Person(s): Phone/e-mail address	Ms. Chutfar Roberts, Environmental Scientist Sr. Phone: 623-393-6357 Email: chutfar.Roberts@aps.com
AZPDES Permit Number:	AZ0025836
Inventory Number:	106091
LTF Number:	80299

II. STATUS OF PERMIT(S)	
AZPDES permit applied for:	Renewal
Date application received:	January 16, 2020
Date application was determined administratively complete:	January 31, 2020
Previous permit number (if different):	N/A
Previous permit expiration date:	July 15, 2020

208 Consistency:

208 Plan consistency is not required for industrial facilities.

Arizona Public Service has the following permits issued by ADEQ applicable to the Water Reclamation Supply System (WRSS) Pipeline:		
Type of Permit		
Aquifer Protection Permit (APP)	P105295	Regulates discharges to the local aquifer

III. GENERAL FACILITY INFORMATION	
Type of Facility:	Industrial
Facility Location Description:	The APS WRSS Pipeline begins at 91st Avenue and Southern Avenue and ends at the PVNGS.
Discharge Flow:	19.5 mgd
Applicable Treatment Processes :	The pipeline is disinfected by injection with sodium hypochlorite between 10 and 15 days prior to maintenance or inspection activities and before the pipeline is drained. Dechlorination occurs naturally within the large, drained pipeline and is completed through normal flow of the Buckeye Canal.
Nature of facility discharge:	Secondary-treated effluent from the pipeline’s low areas, also known as “dead pools”, during performance of maintenance and inspection of the pipeline. Approximately 90% of the effluent comes from the City of Phoenix 91 st Avenue WWTP, approximately 10% comes from the City of Tolleson WWTP.
Average flow per discharge:	Maintenance activities require discharges from one or more locations along the pipeline with an average volume of 5,846,000 million gallons per day. Maintenance typically covers several miles of pipeline during one maintenance event, but not all outfalls will be active during each event.
Continuous or intermittent discharge:	Intermittent Discharge - Maintenance activities require discharges from one or more locations along the pipeline with volumes ranging from 100,000 gallons to 8 million gallons. Maintenance typically covers several miles of pipeline during one maintenance event, but not all outfalls will be active during each event.
Discharge pattern summary:	<p>The permittee indicates the facility expects to discharge a maximum of two times per year – once for each refueling outage and as necessary. Normal operation is to dewater the pipeline once every 3 years for inspection and maintenance.</p> <p>During the previous permit term, discharge occurred once on April 12, 2017.</p>
<p>The APS WRSS Pipeline transports secondary-treated effluent from the City of Phoenix 91st Avenue Wastewater Treatment Plant (WWTP), the City of Tolleson WWTP to the PVNGS Water Reclamation Facility (WRF) where the effluent receives additional treatment prior to being used as makeup water for the cooling towers at the PVNGS. The applicant operates the pipeline to provide the PVNGS with cooling water.</p>	

The pipeline consists of 36.5 miles of steel-reinforced concrete pipe and is divided into four reaches. Each reach is partitioned by an isolation valve. The first three reaches transport effluent from the three WWTPs by gravity to the Hassayampa Pump Station (HPS) located near the Hassayampa River. At the HPS, the effluent is pumped up-gradient through the fourth reach to the PVNGS WRF for on-site treatment. The following table identifies each reach:

Reach Number	Beginning Location	Ending Location	Pipe Diameter	Outfall Number
1	91 st and Southern Avenues	Just west of Estrella Parkway at the location of Isolation Valve 1 and the Buckeye Canal structure	114 inches until passing Estrella Parkway where it decreases to 96 inches	No Outfalls
2	West of Estrella Parkway	Apache Road in the City of Buckeye and immediately after the placement of Isolation Valve 2	96 inches	001, 002, and 003
3	West of Apache Road in the City of Buckeye	At the HPS and coincides with the location of Isolation Valve 3	96 inches	004 through 021
4	At the HPS and coincides with Isolation Valve 4	At the PVNGS WRF and coincides with Isolation Valve 5	66 inches	No Outfalls

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.

Receiving Water:	The Buckeye Canal, tributary to the Hassayampa River
River Basin:	Middle Gila
Outfall Location(s):	<p>Outfall 001: Township 1N, Range 2W, Section 25 Latitude 33° 23' 59.84" N, Longitude 112° 25' 07.13" W</p> <p>Outfall 002: Township 1N, Range 2W, Section 27 Latitude 33° 23' 53.39" N, Longitude 112° 27' 14.20" W</p> <p>Outfall 003: Township 1N, Range 2W, Section 28 Latitude 33° 23' 54.32" N, Longitude 112° 28' 25.04" W</p> <p>Outfall 004: Township 1N, Range 2W, Section 30 Latitude 33° 23' 33.22" N, Longitude 112° 30' 14.12" W</p> <p>Outfall 005: Township 1N, Range 3W, Section 24 Latitude 33° 23' 24.38" N, Longitude 112° 31' 01.72" W</p> <p>Outfall 006: Township 1N, Range 3W, Section 35 Latitude 33° 23' 20.75" N, Longitude 112° 31' 35.03" W</p>

Outfall 007:	Township 1N, Range 3W, Section 35 Latitude 33° 23' 11.14" N, Longitude 112° 32' 13.90" W
Outfall 008:	Township 1N, Range 3W, Section 34 Latitude 33° 23' 04.29" N, Longitude 112° 32' 32.51" W
Outfall 009:	Township 1N, Range 3W, Section 34 Latitude 33° 22' 58.30" N, Longitude 112° 32' 51.94" W
Outfall 010:	Township 1N, Range 3W, Section 33 Latitude 33° 22' 45.01" N, Longitude 112° 33' 52.42" W
Outfall 011:	Township 1N, Range 3W, Section 33 Latitude 33° 22' 39.30" N, Longitude 112° 34' 22.02" W
Outfall 012:	Township 1S, Range 3W, Section 05 Latitude 33° 22' 33.61" N, Longitude 112° 34' 55.06" W
Outfall 013:	Township 1S, Range 3W, Section 06 Latitude 33° 22' 23.63" N, Longitude 112° 35' 56.11" W
Outfall 014:	Township 1S, Range 4W, Section 01 Latitude 33° 22' 20.00" N, Longitude 112° 36' 33.13" W
Outfall 015:	Township 1S, Range 4W, Section 02 Latitude 33° 22' 13.69" N, Longitude 112° 37' 39.05" W
Outfall 016:	Township 1S, Range 4W, Section 02 Latitude 33° 22' 10.35" N, Longitude 112° 38' 03.06" W
Outfall 017:	Township 1S, Range 4W, Section 03 Latitude 33° 22' 05.04" N, Longitude 112° 38' 33.81" W
Outfall 018:	Township 1S, Range 4W, Section 04 Latitude 33° 21' 56.20" N, Longitude 112° 39' 37.42" W
Outfall 019:	Township 1S, Range 4W, Section 04 Latitude 33° 21' 47.02" N, Longitude 112° 40' 17.48" W
Outfall 020:	Township 1S, Range 4W, Section 08 Latitude 33° 21' 44.03" N, Longitude 112° 41' 29.11" W
Outfall 021:	Township 1S, Range 5W, Section 12 Latitude 33° 21' 46.29" N, Longitude 112° 43' 38.15" 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:	Agricultural Irrigation (Agl) Agricultural Livestock watering (AgL)
Designated uses for downstream receiving water:	Outfall 021 is one quarter mile from the confluence of the Hassayampa River. Discharge from Outfall 021 is expected to reach the Hassayampa River and therefore, the designated uses for the Hassayampa River are being applied to discharges from Outfall 021. Aquatic and Wildlife warm water (A&Ww) Full Body Contact (FBC) Fish Consumption (FC) Agricultural Livestock watering (AgL)
Is the receiving water on the 303(d) list?	Yes, the receiving water is listed as impaired for <i>E.coli</i> . The Buckeye Canal is a tributary of the Hassayampa River. Outfall 021 is located one quarter mile from the confluence of the Hassayampa River. This segment of the Hassayampa River is on the 303(d) list as impaired for <i>E.coli</i> .
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, however, due to the infrequent nature of the pipeline discharge, it was determined that only the acute standard was applicable when developing the permit. 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
Biochemical Oxygen Demand (BOD)	mg/L	N/A
Total Suspended Solids (TSS)	mg/L	N/A
<i>E. coli</i>	cfu / 100 mL	>1

VI. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT	
Date of most recent inspection:	04/12/2017; no potential violations were noted as a result of this inspection.
DMR files reviewed:	5/2015 through 5/2020
Lab reports reviewed:	5/2015 through 5/2020
DMR Exceedances:	No exceedances were noted.
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 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.

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.

No limits have been removed from the permit. 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 or 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 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:
The regulations found at 40 CFR §133 require that POTWs achieve specified treatment standards for pH based on the type of treatment technology available. Since the pipeline receives effluent from POTWs, technology-based effluent limitations (TBELs) have been established in the permit for this parameter.

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.

It is assumed that RP exists for exceedance of water quality criteria for the pollutants E. coli and total residual chlorine (TRC) for Outfall 021, which is one quarter mile from the confluence of the Hassayampa River. These parameters have been shown through extensive monitoring of POTWs to fluctuate greatly and thus are not conducive to exclusion from limitation due to a lack of RP. Therefore, the draft permit contains WQBELs for E. coli

and TRC for discharge which occurs at Outfall 021, only. ADEQ has not included TRC monitoring at all other outfalls because TRC is expected to dissipate within the canal prior to reaching the Hassayampa River.

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. While this methodology was used, it was determined that a monthly average limit would not be applied based on the short duration and episodic nature of the discharge. Because the discharge is episodic and not expected to last greater than 96 hours, the acute numeric water quality standards for aquatic and wildlife warm designated uses were applied to this permit. When the limit is based on human health criteria, 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.

The following trace substances were not included as limits or assessment levels in the draft permit due to a lack of RP based on best professional judgment (BPJ): barium, nitrates, nitrites, and manganese. The numeric standards for these pollutants are well above what would be expected from a WWTP discharge.

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*.

Parameter	Lowest Standard / Designated Use	Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1) (3)
Flow	---	---	---	---	---	Discharge flow is to be monitored on a continual basis using a flow meter.
Chlorine, Total Residual (TRC)	19µg/L/ A&Ww acute	<11.5 µg/L	1	N/A	RP always expected when chlorine or bromine is used for disinfection.	Monitoring required 1x / discharge as a discrete sample and a QWBEL remains in the permit for Outfall 021 when discharging. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. Discharge from Outfall 021 is the only Outfall which has the possibility of reaching the Hassayampa River and therefore TRC must be sampled when discharging.
<i>E. coli</i>	30-day geometric mean: 126 cfu /100 mL (4 sample minimum) Single sample maximum: 235 cfu /100 mL FBC	<1 MPN /100 mL	1	N/A	RP expected as effluent from WWTPs always has the potential to exceed the standard. See explanation above.	<i>E. coli</i> is to be monitored 1x / discharge as a discrete sample and a QWBEL remains in the permit for Outfall 021 when discharging.
pH	Minimum: 6.5 Maximum: 9.0 A&Ww and FBC A.A.C. R18-11-109(B) Minimum: 6.0 Maximum: 9.0 Technology-based limits 40 CFR 133.102	7.1 S.U.	1	N/A	QWBEL or TBEL is always applicable to WWTPs.	pH is to be monitored 1x / discharge using a discrete sample of the effluent and a QWBEL remains in the permit for Outfall 021 when discharging. 40 CFR Part 136 specifies that grab samples must be collected for pH.
Bis (2-ethylhexyl) phthalate	3 µg/L/ FC	<5.3 µg/L	1	N/A	RP Indeterminate (High LOQ)	Monitoring required 1x / discharge and a QWBEL remains in the permit for Outfall 021 when discharging.
Endrin	0.004 µg/L/ Agl and AgL	<0.43 µg/L	1	N/A	RP Indeterminate (High LOQ)	Monitoring required 1x / discharge and a QWBEL remains in the permit for Outfall 021 when discharging.
Hexachlorocyclohexane alpha (alpha-BHC)	0.005 µg/L/ FC	<0.43	1	N/A	RP Indeterminate (High LOQ)	Monitoring required 1x / discharge and a QWBEL remains in the permit for Outfall 021 when discharging.

Footnotes:

- 1 The monitoring frequencies are as specified in the permit.
- 2 The permittee shall monitor discharges at the discharging Outfall that is furthest downstream on the pipeline.

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 B 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.

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.

Discrete (i.e., grab) samples are specified in the permit for all parameters. The quality of the discharge is not expected to be highly variable.

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

From the permit Part I.D:

1. Effluent samples shall be taken prior to mixing with receiving waters at the point of release from the pipe.
2. During each maintenance discharge timeframe, one Outfall must be sampled. The sample from that Outfall shall be considered representative of all Outfalls discharging during the timeframe.

An example of this effluent sampling would be if Outfalls 001 through 014 and 019 through 021 were not discharging no sampling would be completed from the end Outfall. In addition, if, during the same time period, Outfalls 015, 016, 017, and 018 were discharging, sampling would be taken from Outfall 018 as a representative sample for all discharging Outfalls.

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, Section B.1. and B.2. of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs). 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.D of the permit.

X. SPECIAL CONDITIONS (Part III 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.

XI. 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 APS – WRSS Pipeline will be to a canal with Tier 1 antidegradation protection. 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.

XII. STANDARD CONDITIONS

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

XIII. 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.

XIV. 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: Jessica Kohls
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Jessica Kohls at (602) 771 – 0391 or by e-mail at kohls.jessica@azdeq.gov.

XV. 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, 2C, and 2C Addendum received January 16, 2020, 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 16, 2020.
3. ADEQ files on Arizona Public Service (APS) Water Reclamation Supply System (WRSS) Pipeline.
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:
 - a. Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*.
 - b. Part 124, *Procedures for Decision Making*.
 - c. Part 133. *Secondary Treatment Regulation*.
 - d. 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. U.S. EPA NPDES Permit Writers' Manual, September 2010.