ADEQ Arizona Department of Environmental Quality

DRAFT FACT SHEET

Aquifer Protection Permit No. P-100388, LTF #62356
Place ID 3507, Significant Amendment

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amended aquifer protection permit (APP) for the subject facility that covers the life of the facility, including operational, closure, and post closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards (AWQS) at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). The purpose of BADCT is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

I. FACILITY INFORMATION

Name and Location

Permittee's Name:	Arizona Public Service Company (Joint Owner, Operator, and Permittee)
Mailing Address:	Palo Verde Nuclear Generating Station P.O. Box 52034, M.S. 7626 Phoenix, Arizona 85072-2034
Facility Name and Location:	Palo Verde Nuclear Generating Station 5801 South Wintersburg Road Tonopah, Arizona 85354-7529

Significant Amendment Description

ADEQ has reviewed and approved the following:

- Set Alert Levels (ALs) for Perimeter Alert Well APP-23
- Update language in Section 4.1.1, Evaporation Pond 1 to reflect the completed construction of Evaporation Pond 1
- Approved a Closure Work Plan for Sedimentation Basins 1 and 2
- Adding Compliance Schedule Item to submit a clean closure application for the two Sedimentation Basins
- Adding a Compliance Schedule Item to provide the following for the Rubbish and Sludge Landfills
    - Provide a Solid Waste Management Plan
    - Volume of solid waste placed in the two landfills per year
    - Revision of permit requirements for the two landfills

  - Adding the Waste Programs Division Director's Signature to the APP
- Adding a Compliance Schedule Item for Financial Demonstration
- Include additional changes to framework language and update fact sheet

Regulatory Status

The Palo Verde Nuclear Generating Station (PVNGS) has been in operation since 1985. The facility is operated by the Arizona Public Service Company (APS) and is jointly owned by seven utility companies. The PVNGS submitted a Notice of Disposal in 1985 and operated under Groundwater Quality Protection Permit (GWQPP) No. G-0077-07 issued by ADEQ in 1988. An APP application was submitted for PVNGS on May 12, 1995. Additional information for the APP was submitted in 1999, 2000, 2002 and 2003. The original APP was issued to PVNGS on December 17, 2003. Amendments to the permit were issued in 2005, 2007, 2008, 2010, 2011, 2013, 2014, and 2016. The APP authorizes the operation of industrial wastewater surface impoundments, water storage reservoirs containing cooling water, and landfills located at PVNGS.

In addition to the APP, PVNGS operates under other environmental permits, including a Hazardous Waste Identification Number for small quantity generation of hazardous wastes, and a Maricopa County Air Quality Operating Permit (No. 030132). The PVNGS is also regulated by the Arizona Radiation Regulatory Agency (ARRA) under Special Approval License No. 7-368 and the federal Nuclear Regulatory Commission (NRC) under a license. A full list of environmental permits for PVNGS is in the ADEQ project file and is available for review upon request.

Exempt Facilities

Several of the facilities located at the PVNGS have been determined to be exempt from APP requirements pursuant to Arizona Revised Statutes (A.R.S.) §49-250. The APP-exempt facilities are: the Water Reclamation Facility (WRF); the Sewage Treatment Plant (STP) tanks (the discharge is not exempt but cycles back to the headworks of the WRF); the Spray Ponds for the Units which are located in concrete above-ground tanks; the cooling towers and concrete aprons which are located on concrete pads; the Concrete/Inert Material Landfill; the Independent Spent Fuel Storage Installation regulated by NRC and containing spent fuel stored dry in concrete casks on a concrete pad; the truck washing station; the Fire Training Facility, and the Retention Tanks.

WRF – The WRF is exempt from APP requirements pursuant to A.R.S. §49-250(B)(22), but is described under Facility Description for the purpose of clarifying APP permit-related inspections.

STP – The STP is a package plant contained in above-ground tanks. The discharge from the STP is directed to one of two places, the headworks of the WRF or to the exempt Retention Tanks. The discharge from the STP is not exempt.

Spray Ponds – The Spray Ponds are considered engineered structures designed not to discharge and are therefore exempt from APP requirements pursuant to A.R.S.§ 49-250(B)(22). Each generating unit has a set of two Spray Ponds. The Spray Ponds provide cooling water for the

emergency cooling of the reactors, and other emergency equipment. The six Spray Ponds are designed to meet NRC requirements for the Seismic Category I and are concrete containment structures designed not to discharge. APS has recently submitted documentation to ADEQ that states overspray from the ponds mixes with stormwater during storm events; however, this discharge spray does not reach the aquifer.

Cooling Towers and Aprons – Each of the Units has three cross-flow, circular, concrete, low silhouette mechanical draft Cooling Towers used for cooling the water from the condenser cooling process. The treated wastewater from the WRF is the source of make-up water used in the Cooling Towers. A concrete apron is installed around each cooling tower to collect and return the majority of any overspray to the cooling tower. The Cooling Towers and related apron containment are exempt from APP requirements pursuant to A.R.S. § 49-250(B)(22). The industrial wastewater discharged from the cooling towers after maximum cycling through the system is discharged to Evaporation Ponds 1, 2, and 3, as regulated under this permit. The average blowdown rate of each of the three units at PVNGS is 970 gallons per minute (GPM).

Retention Tanks – There are two above-ground, epoxy-lined concrete tanks that receive from the oily water separator discharges, plant sump discharges, neutralization tank releases and other non-hazardous waste streams and process water discharges. These concrete structures are tanks pursuant to A.R.S. § 49-250(B)(22) and are exempt from regulation under APP.

Facility Description

The power plant began operations in 1985 and is anticipated to remain in operation for approximately 60 years. The 4,280-acre facility is located west of Phoenix, Arizona (Figure 1, Site Location and Property Boundaries). PVNGS is an electric generating baseload power plant, utilizing nuclear fission for generation of electrical power. PVNGS is owned by a consortium of utilities and operated by APS. The facility consists of electric generating units and cooling towers, solid waste handling and storage facilities (landfills), wastewater containment facilities (surface impoundments) for cooling tower blowdown and other plant effluents, a package wastewater treatment plant, a WRF and water storage reservoirs, plant operation and maintenance warehouses, and administration buildings.

The generating facility consists of three separate, identical generating units/reactors each equipped with three cooling towers. Each of the three generating units (Units 1, 2 and 3) has a nominal net electrical output of approximately 1,346 megawatts (MW) for a total plant capacity of about 4,038 MW. Each generating unit has associated structures: auxiliary building; radioactive waste building; fuel building; control building; diesel generator building; main steam support structure; access building; spray ponds and cooling towers; and an oil/water separator.

Also at PVNGS, there are hazardous waste storage areas; low-level radioactive waste interim storage facilities; railroad and road facilities; fire protection and security facilities; control room simulators and other training facilities; and emergency facilities. There is a 500-kilovolt (KV) switchyard located at the facility that is managed and operated by Salt River Project (SRP). The switchyard is not regulated by this APP.

This area-wide APP authorizes the operation of seven surface impoundments (including the two unlined sedimentation basins), a sludge disposal landfill, and a rubbish landfill, all visible in the aerial photograph of the facility (Figure 1). Reclaimed wastewater, domestic wastewater, and most industrial process wastewater are managed on site by reclaiming the wastewater at the WRF for use in the cooling towers. The WRF effluent is cycled in the cooling towers for 20 cycles or more before final discharge to the evaporation ponds. WRF maintains reclaimed wastewater in collection systems and the storage reservoirs for use as make-up water in the cooling towers. Discharging facilities regulated by the APP are shown in Figure 2.

The seven surface impoundments containing water and wastewater regulated by this APP include the 85-acre WSR, the 45-acre WSR, Evaporation Ponds 1 (cells 1A, 1B, and 1C), 2 (cells 2A, 2B and 2C) and 3 (cells 3A and 3B), and unlined Sedimentation Basins 1 and 2. This permit also regulates the Sludge Disposal Landfill (which receives WRF sludge and cooling tower sludge) and the Rubbish Landfill.

There is one construction water holding pond, covered under a Type 3.01 General Permit. Authorization to discharge under the general permit was issued by ADEQ on October 10, 2009 (Inventory Number 106108, LTF Number 49897 and Site Code [USAS] Number 070100-00).

PVNGS purchases secondary-treated effluent from the Phoenix 91st Avenue, Tolleson and Goodyear Wastewater Treatment Plants (WWTPs) for beneficial use as make-up cooling water and for other approved uses on-site. The effluent is transported through 36 miles of underground pipe originating at the City of Phoenix 91st Avenue WWTP. The Water Reclamation Supply System (WRSS) pipeline passes through the Hassayampa Pump Station, which is permitted under a separate APP. The WRF also receives effluent from the STP at the facility for reuse.

The WRF is exempt from APP requirements pursuant to A.R.S. §49-250(B)(22), but is described here for the purpose of clarifying APP permit-related inspections. The on-site WRF is an advanced WWTP, utilizing a multi-phase, biochemical treatment process. The WRF process includes 7 trickling filters, 7 first-stage solids contact clarifiers, 7 second-stage clarifiers, and 24 gravity filters. The WRF treats a combination of reclaimed wastewater from the pipeline, STP effluent, industrial wastewater, and groundwater. The WRF also has treatment facilities to provide domestic, demineralized and fire protection water. The final treated effluent discharged from the WRF flows by gravity to the 85-acre and 45-acre WSRs prior to use on-site.

The production rate of the WRF is estimated to be 45,000 GPM, or 64.8 million gallons per day (MGD). Approximately 2,087 GPM (3 MGD) is piped to the Redhawk Power Plant. The PVNGS uses approximately 769 GPM of domestic and demineralized water, averaged over a 24-hour period, or approximately 1.1 MGD. Non-effluent process water is supplied by three, on-site regional aquifer groundwater wells. The third water supply well serves as a backup to the other two but also provides water for dust control.

Cadastral Location	Latitude (N)	Longitude (W)	ADWR Reg. No.	Well Depth (ft. bgs)	Annual Gallons Pumped/Year (g/yr)[1]
T1N R6W Sec 27	33º 23'34"	112º 51' 16"	55-613123	1,050	Up to 1,685,000,000
T1N R6W Sec 34	33º 23' 30"	112º 51' 31"	55-613124	1,413	Up to 1,685,000,000
T1N R6W Sec 34	33º 23’ 29.5”	112º 51’ 16.9”	55-214659	1,360	Up to 1,685,000,000

[1] The pumpage rate is regulated by the Arizona Department of Water Resources and is provided here for informational purposes only. This permit in no way restricts rates or volumes of groundwater withdrawn by the permittee.

PVNGS uses WRF-treated reclaimed water and untreated groundwater for dust suppression, herbicide makeup-water, or other surface applications within the Pollutant Management Area. Dust suppression is required by Air Permit No. 8600896 for PVNGS site operations. Use of this water for on-site surface applications is authorized by this permit, based on water quality data provided by the permittee.

Hydrologic Setting

The hydrogeology at the site is heterogeneous and significantly affects the occurrence and quality of groundwater beneath the site. The ground surface at the PVNGS site is relatively flat and the surface slopes roughly north to south across the site, with elevations ranging from 974 feet above mean sea level (amsl) to the north at the APP-23 location, to 889 feet amsl to the south at PV-216R. The Palo Verde Hills are located to the west and northwest.

Two lines of northwest to southeast trending extrusive volcanic hills emanate from the Palo Verde Hills and extend across the PVNGS site. The northern line of hills is located north of the Water Reclamation Facility and the 45-acre water storage reservoir, and the southern line of hills extend through the area currently occupied by the evaporation ponds near the southern end of the PVNGS site. The presence of the extrusive volcanic hills likely influences the flow of groundwater locally in areas where they are present, and may create barriers to groundwater flow to the north and south of the PVNGS facility, but their overall influence on groundwater flow is not well understood.

Multiple zones of saturation appear to be located beneath the site and have been generally defined as the shallow or uppermost aquifer, the Palo Verde Clay aquifer, and the regional aquifer.

Shallow /Uppermost Aquifer Groundwater Flow

The shallow or uppermost aquifer is comprised of zones of shallow saturation within apparently coarser subunits in both the upper alluvial unit (UAU) and the upper portions of the middle fine-grained unit (MFU). Fine-grained, low permeability material represented by the top of the MFU and fine-grained subunits within the MFU appear to act as an aquitard, limiting downward migration of groundwater resulting in complex, hard to define, saturated zones of differing thickness at various depths. The aquitard at the top of the MFU can be correlated in geophysical logs and cross-sections throughout the Hassayampa groundwater basin. Overall, the MFU is characterized as massive, laterally extensive layers of clays and silty clays

interbedded with thinner layers of clayey silt, clayey sand, and silty sand. At the boundaries of the site, static water levels in the shallow aquifer are typically within the middle of the MFU. Groundwater levels in the northern portion of the site, near the reactor units, are approximately 95 to 135 feet bgs, and approximately 45 to 135 feet bgs in the southern portion of the site, south of the evaporation ponds.

Groundwater flow in the shallow aquifer appears to be radiating outward from the central portion of the PVNGS site. Near the boundaries of the site, the gradients generally steepen parallel to the property boundary. In the central portion of the site and near the 85-acre water storage reservoir, the lower portion of the UAU is saturated. In the area of the reactor units, available data indicate groundwater in the shallow aquifer flows to the west-northwest. Near the western edge of the PVNGS property boundary, available data indicate groundwater flows from east to west from the central portion of the site. Near the eastern edge of the PVNGS property boundary, available data indicate shallow groundwater flows from west to east from the central portion of the site.

Intermediate or Palo Verde Clay Aquifer Groundwater Flow

The lower portion of the MFU includes the regionally extensive Palo Verde Clay, which is located at a depth ranging from approximately 175 to more than 200 feet bgs at the site, and ranges in thickness from 60 to 80 feet. A deeper saturated zone, known as the Palo Verde Clay aquifer, is characterized by a thin coarse-grained layer that is generally found in wells screened directly above the Palo Verde Clay. The degree of hydraulic communication with the uppermost zones of saturation and the deeper saturated zone found above the Palo Verde Clay has not been determined. However, based on general water quality data such as concentrations of TDS, there does not appear to be significant hydraulic connection between the uppermost shallow aquifer and the Palo Verde Clay aquifer. As stated above, TDS values in groundwater samples collected from the Palo Verde Clay aquifer ranged from 520 to 1,600 mg/L, significantly lower than the concentrations found in the shallow or uppermost aquifer.

Available water level elevation data indicate that the flow direction of groundwater perched above the Palo Verde Clay is generally to the southwest in the southern portion of the PVNGS site, and to the west and northwest in the central and northern portions of the PVNGS site, respectively.

Regional Aquifer Groundwater Flow

Groundwater in the regional aquifer directly beneath the center of the facility appears to flow due south/southwest. The effect of basement structures and rock outcrops on groundwater flow directly south of the evaporation ponds has not been fully assessed to date and cannot be assessed with the limited number of wells at the site. Groundwater modeling results suggest that the flow direction in the regional aquifer trends southwest to west in the portion of the site located south of the evaporation ponds (Mock, 2003).

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY

One of the primary requirements of the APP Program is BADCT. Facilities must be designed and operated in a manner to achieve the greatest degree of discharge reduction that is achievable. BADCT serves to protect groundwater quality by preventing discharges from

moving through the subsurface soils to underlying groundwater. In general, it is more cost effective to prevent groundwater contamination from occurring through use of engineering controls than it is to clean up groundwater after impact.

BADCT for the PVNGS facility includes the engineering design of the wastewater reservoirs and liner systems, liner leakage monitoring systems, operational and maintenance practices for pollution control, water and wastewater treatment, water reclamation and reuse, water conservation, and the geological characteristics of the site. The APP addresses the design, construction, operation, and closure requirements for the APP-regulated facilities listed in the table in Section 2.1 of the permit. With the exception of the two unlined sedimentation basins, information in the application and subsequent submittals support the identified facilities as meeting BADCT. Detailed descriptions of BADCT can be found in the APP for the following APP regulated facilities: 85-acre WSR, 45-acre WSR, Evaporation Pond 1 (cells 1A, 1B, and 1C), Evaporation Pond 2 (cells 2A, 2B and 2C), Evaporation Pond 3 (cells 3A and 3B), the Sludge Disposal Landfill, and the Rubbish Landfill.

Site Characteristics and BADCT

Site characteristics such as presence of the MFU and a shallow depth of this unit beneath the facility contribute to BADCT, but were not used as part of the BADCT demonstration. Wastewater reclamation and conservation are a significant contribution to BADCT at this facility. Wastewater from local WWTPs is utilized for cooling water in the generating units. Water is cycled an estimated 20 times to conserve water prior to being discharged to Evaporation Ponds as wastewater. The vadose zone beneath the site was characterized with field and laboratory testing for unsaturated flow, performed by Harding Lawson Associates in 1994 (HLA, 1994). Nine soil borings were drilled and sampled for a total of 469 vertical feet of borehole drilled. The predominant soil type encountered was silt with differing amounts of fine sand or clay and ranged from silty sand, sandy gravel to silty clay. Samples were submitted for geotechnical assessment, including flexible wall permeability testing. Permeabilities in the vadose zone ranged from 1.3×10^{-5} centimeters per sec (cm/s) in clayey sand to 6.29×10^{-9} cm/s in silty clay (HLA, 1994). These permeabilities meet the ADEQ surface impoundment BADCT definition of low permeability soil used for engineering design. These permeability estimates by HLA were based on unsaturated flow in the vadose zone. In the event of liner failure, saturated flow conditions would be expected to exhibit higher rates of fluid movement.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

OPERATIONAL MONITORING AND REPORTING REQUIREMENTS

Piezometer Vadose Zone Monitoring

ADEQ required piezometers to be installed at the 85-acre WSR as a follow up action in response to the failure of the east side of the liner in the impoundment prior to its reconstruction. The liner system in the 85-acre WSR has been replaced.

Water level monitoring is required in these piezometers for the purpose of water level contouring in Section 13.2, Table 13.2-17, Water Level Measurement and Contouring, List of Wells. Mounding associated with the failed liner system is dissipating and should eventually

reach equilibrium. Piezometer monitoring indicated high concentrations of nitrates in several wells. APS has installed additional wells to provide confirmation that no off-site migration of groundwater with concentrations that are above numeric AWQS has occurred.

Evaporation Ponds 1, 2 and 3 and WSRs – LCRS System Monitoring for Liner Leakage
The permit requires daily comparisons of fluid in the LCRS sumps with liner leakage alert levels (AL1 for normal liner leakage and AL2 for excessive liner leakage) that are in the permit. LCRS monitoring is required for all impoundments.

Performance Level Monitoring – All Lined Impoundments
The permit requires routine inspections of all impoundments regulated by this permit in accordance with Section 13.2, Table 13.2-1, Surface Impoundment and BADCT Performance Standard Inspection & Alert Monitoring. The impoundments are inspected for a series of performance levels including: maintaining freeboard (the separation required between the operating level and the top of the berm); overtopping; liner integrity; dam and berm integrity; LCRS function; and stormwater diversion and control.

Sludge Characterization
The permit requires the permittee to routinely sample the two types of sludge that are deposited in the Sludge Landfill: WRF sludge and Cooling Tower Sludge. Limitations for types of materials that can be deposited in the landfill are stipulated in the permit and restrict the landfill to non–hazardous sludge that meets ARRA requirements. Sampling frequencies were clarified in the previous permit amendment.

As part of assessing the source of nitrates at the site, APS has sampled cooling tower and WRF sludge. Elevated nitrate concentrations in groundwater prior to site development (in the 250 milligrams per liter [mg/L] range) have been documented. APS has conducted a nitrate study for the area around the 85-acre WSR that was submitted under the compliance schedule and reviewed as part of the previous amendment.

GROUNDWATER MONITORING AND REPORTING REQUIREMENTS

This area-wide APP has a pollutant management area (PMA) that circumscribes all the APP discharging facilities (Figure 2). The perimeter groundwater monitoring program is intended to ensure detection of impacted groundwater prior to any off-site migration. To date no Aquifer Quality Limits (AQLs) have been exceeded for any wells at the site and the monitoring program suggests that the drinking water aquifer and off-site uses are protected. Well locations are shown on Figure 2.

Groundwater Monitoring and Compliance with AWQS at the POC
Previous significant amendments included substantial revisions to the groundwater monitoring program in the permit. The demonstration of compliance with standards for this permit focuses on the uppermost aquifer. The locations and descriptions of the POC wells associated with each discharging facility are in Section 8.1. AQLs are designated for all constituents with numeric standards that are on the constituent list for the semiannual monitoring of POC wells.

Perimeter Wells
Semiannual monitoring of perimeter monitoring wells in the uppermost aquifer inside the property boundary serve to track groundwater quality changes in the aquifer. ALs are established for constituents in the perimeter well monitoring described in Section 8.2 of the permit. There are no AQLs for the perimeter alert wells.

Data Continuity Wells
Annual monitoring of Data Continuity (DC) wells is intended to provide a consistent monitoring of groundwater conditions over a long period of time. The permit specifies DC wells in the shallow, PV clay, and regional aquifers that ensure a statistically sound basis for studying trends in groundwater levels and water quality. The DC wells and corresponding aquifers and locations are listed in Section 8.3 of the permit. There are no ALs or AQLs for DC wells.

IV. STORM WATER AND SURFACE WATER CONSIDERATIONS

Stormwater runoff is controlled at the site by various stormwater management systems. Stormwater runoff from the power plant area is diverted and collected in a series of gunite-lined canals and earthen ditches and diverted to the two sedimentation basins located at the plant site. Sedimentation Basin 2 also receives limited amounts of discharges that meet the requirements of A.R.S. § 49-250(B)(23). Both sedimentation basins have received unauthorized wastewater discharges in the past during plant emergencies/upset conditions. All non-stormwater and non-exempt discharges to the sedimentation basins are regulated by this APP.

V. COMPLIANCE SCHEDULE

Interim steps needed to achieve compliance with the APP program over time are presented in the amended permit in the active compliance schedule. The detailed compliance schedule can be found in Section 12.1, Active Compliance Schedule Items, of the permit. In general it contains requirements for assessment of groundwater quality trends every 5 years and submittal of annual reports, as needed. Five new items were added to the compliance schedule during this amendment.

Several items from the previous significant amendment have been completed since the last permit was issued. These items were moved to Section 12.2, Completed Compliance Schedule Items. Compliance schedule items completed before this significant amendment have been removed from Section 12.1.

VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability
APS has demonstrated the ability to maintain the technical competence necessary to carry out the terms and conditions of the APP in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

Updated plant contact information was provided to ADEQ by APS as part of the previous significant amendments to ensure that technical capability requirements are maintained. The permit requires that appropriate documents be sealed by an Arizona registered geologist or professional engineer. This requirement is a part of on-going demonstration of technical capability.

Financial Capability

APS has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee is expected to maintain financial capability throughout the life of the facility. The financial capability was demonstrated in accordance with A.A.C. R18-9-A203(C)(1)(b).

The financial capability for this amendment was demonstrated through the financial test for self-assurance under A.A.C. R18-9-A203(C)(1)(b). Updated closure costs were submitted for discharging facilities. Previous demonstrations were under A.A.C. R18-9-A203(C)(1) for the original APP issued in December 2003 and subsequent amendments in 2005 and 2007. Financial capability for the previous significant amendment was demonstrated through A.A.C. R18-9-A203(F) and (G).

Zoning Requirements

The PVNGS has been properly zoned for industrial use and the permittee has complied with all Maricopa County zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(B)(3).

VII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-108(A))

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a 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.

Public Comment Period (A.A.C. R18-9-109(A))

Public notice was published in the Buckeye Valley News for this permit amendment. Comments were solicited by the public notices for during a 30-day public comment period.

Public Hearing (A.A.C R18-9-109(B))
Not applicable for this amendment.

VIII. ADDITIONAL INFORMATION

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

Arizona Department of Environmental Quality
Water Quality Division – Water Permits Section
Attn: David M. Haag, R.G., P.G., Associate Hydrogeologist/Project Manager
1110 W. Washington St., Mail Code 5415B-3
Phoenix, Arizona 85007
Email Address: dh1@azdeq.gov
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IX. LIST OF FIGURES