



Palo Verde Nuclear
Generating Station

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102-06115-TNW/RAS/GAM
December 23, 2009

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528, 50-529, and 50-530
Environmental Documents for NRC Review of the PVNGS License
Renewal Application**

By letter no. 102-05937, dated December 11, 2008, as supplemented by letter no. 102-05989, dated April 14, 2009, Arizona Public Service Company (APS) submitted a license renewal application (LRA) for PVNGS Units 1, 2, and 3. During the week of October 26, 2009, the NRC staff conducted an environmental site audit at PVNGS as part of their review of the PVNGS LRA.

Subsequent to the environmental site audit, the NRC staff identified documents that will require docketing to support the basis of their licensing and regulatory decisions. The requested documents, listed in Enclosure 1, are provided in electronic format on a compact disc (CD) as Enclosure 2.

Please note that the following two documents requested by the NRC staff do not exist for the reasons noted:

1. Under non-radiological waste, there is no separate documentation for low-level mixed wastes. In the past five years, low level mixed waste quantities were only generated in 2005, and those quantities are listed in document file no. 2-2-PV-545.
2. Under hydrology, PVNGS does not have an RCRA (Resource Conservation and Recovery Act) Part B permit.

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of the PVNGS License Renewal Application
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No regulatory commitments are being made to the NRC by this letter. Should you need further information regarding this submittal, please contact Angela K. Krainik, License Renewal Department Leader, at 623-393-5045.

Sincerely,


FOR T. N. WEBER

TNW/GAM/gat

cc: all w/o Enclosure 2:

E. E. Collins Jr.	NRC Region IV Regional Administrator
J. R. Hall	NRC NRR Project Manager
R. I. Treadway	NRC Senior Resident Inspector
L. M. Regner	NRC License Renewal Safety Project Manager

w/ Enclosures 1 and 2:

D. M. Drucker	NRC License Renewal Environmental Project Manager
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- Enclosures:
1. List of Directories and Files for Documents Requested by the NRC and Provided on the Enclosed Compact Disk (CD) for Palo Verde License Renewal Environmental Review
 2. Compact Disk (CD) Containing the Palo Verde Nuclear Generating Station Environmental Needs List Documents

Enclosure 1

**List of Directories and Files for Documents
Requested by the NRC and
Provided on the Enclosed Compact Disk (CD)
for Palo Verde License Renewal Environmental Review**

**Enclosure 1: List of Directories and Files for Documents Requested
by the NRC and Provided on the Enclosed Compact Disk (CD)**

1. AIR QUALITY, METEROLOGY, & CLIMATE

- **1-1-PV-241** - Annual Air Emission Inventory, 2004 (summary page only).
- **1-2-PV-240** - Annual Air Emission Inventory, 2005 (summary page only).
- **1-3-PV-239** - Annual Air Emission Inventory, 2006 (summary page only).
- **1-4-PV-400** - Annual Air Emission Inventory, 2007 (summary page only).
- **1-5-PV-401** - Annual Air Emission Inventory, 2008.
- **1-6-PV-402** - Air Quality Notice of Violation (NOV) Response, 2007.
- **1-7-PV-403** - Air Quality Notice of Violation (NOV) Settlement, Order of Abatement by Consent, Feb.19, 2008.
- **1-8-PV-084** - Non-title V Air Permit #030132 - Aug 2005.

2. NON-RADIOLOGICAL WASTE AND ELECTRICAL FIELDS

- **2-1-PV-266** - Special Approval #7 - 368 (Category D18) - Sep 2008 permit for the sludge landfill from the ARRA – Arizona Radiation Regulatory Agency.
- **2-2-PV-545** - Description of all non-radioactive (hazardous and non-hazardous) waste streams at PVNGS including types and quantities for the past 5 years (2007-2004).
- **2-3-PV-255** - Annual Facility Report for PVNGS - 2004 PVNGS status as a RCRA Small Quantity Generator.
- **2-4-PV-466** - Pollution Prevention Plan Progress Report – 2009 waste minimization measures by PVNGS.
- **2-5-PV-505** - SRP Transmission Line Maintenance and Inspection Policy.
- **2-6-PV-288** - Wastewater Treatment Plant Permit # 37148.
- **2-7-PV-533** - Maricopa County Landfill Permit to Operate (0008) – current (expiration 4/30/2010).
- **2-8-PV-534** - 2008 Waste and Recycle Data Summary, including: onsite landfill additions, hazardous waste generation totals, YTD waste management data, and 2008 Universal Waste Bill of Lading.
- **2-9-PV-535** - 2008 Used Oil Bill of Lading.
- **2-10-PV-536** - List of Cooling Tower and Spray Pond Chemicals (do not include MSDS).

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3. HYDROLOGY

Permits:

- **3-1-PV-258** - APP (No. P-100388) – March 14, 2008. Area-wide permit covering 80-ac and 45-ac storage reservoirs, evaporation ponds 1 & 2, unlined sedimentation basins 1 & 2, sludge disposal landfill, and rubbish landfill with a minor amendment approved on June 14, 2008.
- **3-2-PV-261** - APP (No. P-3507-38578; LTF ID 46910) – October 23, 2007. Area-wide permit covering 80-ac and 45-ac storage reservoirs, evaporation ponds 1 & 2, unlined sedimentation basins 1 & 2, sludge disposal landfill, and rubbish landfill.
- **3-3-PV-096** - APP (No. P-105295) – February 2, 2004. Covers Hassayampa Pump Station Holding Pond (for reclaimed water). This is the only reclaimed water permit from ADEQ that's required of the site.
- **3-4-PV-098** - APP (No. P-105317) – April 6, 2005. Temporary WRSS Chlorination Station.
- **3-5-PV-258** - Revised APP (Area-Wide) No. P-100388 LTF ID: 48337; dated May 1, 2009, including Fact Sheet for PVNGS (appended to a letter to ADEQ dated May 4, 2009 with significant amendment); was attached to APP No. 100388 (May 1, 2009).
- **3-6-PV-276** - Water withdrawal permit by the ADWR granting the groundwater appropriation.

Monitoring reports related to permits:

- **3-7-PV-062** - Annual Monitoring and Compliance Report (P-100388) 2004.
- **3-8-PV-063-1 of 2** - Annual Monitoring and Compliance Report (P-100388) 2005.
- **3-8-PV-063-2 of 2** - Annual Monitoring and Compliance Report (P-100388) 2005.
- **3-9-PV-238** - Annual Monitoring and Compliance Report (P-100388) 2006.
- **3-10-PV-409** - Annual Monitoring and Compliance Report (P-100388) 2007.
- **3-11-PV-410** - Annual Monitoring and Compliance Report (P-100388) 2008.
- **3-12-PV-413** – 5 Year Monitoring Program Evaluation Report, dated May 15, 2009.
- **3-13-PV-414** - Table A-1, Five Year Groundwater Monitoring Data (B, Cl, F, nitrate/nitrite, K, SO₄, and TDS (2004 – 2008 used for statistical analysis).

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3. HYDROLOGY (continued)

Tritium release:

- **3-14-PV-213** - Tritium Evaluation 30-Day Follow-Up Report Task 1 and Task 2 prepared by CH2MHill; dated May 31, 2006.
- **3-14-PV-213-R1** - Tritium Evaluation 30-Day Follow-Up Report Task 1 and Task 2 prepared by CH2MHill; Rev. 1, dated June 21, 2006.
- **3-15-PV-290** - Letter to ADEQ regarding APP P-3507-100388 dated December 15, 2006 with Subject: Proposed Ambient Monitoring Program for New Tritium Monitoring Wells.

Water supply (production) wells:

- **3-16-PV-404** - Registration of Existing Wells – B-1-6 27DDC.
- **3-17-PV-405** - Registration of Existing Wells – B-1-6 34ABB .
- **3-18-PV-406** - Pump Installation Completion Report File No. C(1-6)10 BDA, Well Registration No. 55-900619.
- **3-19-PV-407** - Map showing well locations (and appropriate citation to use when referring to the map).
- **3-20-PV-408** - Coordinates of groundwater supply wells (10BDA, 27DDC, and 34ABB) in regional aquifer.

Other:

- **3-21-PV-291** - Letter to EEC Tucson - Regulatory Services, dated January 10, 2008, regarding ambient groundwater monitoring report for Wells APP-9, APP-10, APP-11. Includes water contours near the evaporation ponds.
- **3-22-PV-411** - Hydrographs for groundwater wells and shallow aquifer contour maps.
- **3-23-PV-412** - Site map, well location maps, shallow aquifer contour maps, generalized cross section A-A', and water quality radial diagrams throughout the site.

Corrective action plans/closure reports:

- **3-24-PV-213** - CRDR #2874033 Special Evaluation – Radiological Engineering with cover letter dated July 21, 2006 (ID #218-02048-LJD) and Subject Line: CRDR 2874033 Decommissioning Record. Relates follow-up action to CRDR #2869959 - tritium detected in monitoring pothole near the Unit 3 Radwaste Yard.
- **3-25-PV-415** - Letter to ADEQ dated June 12, 2009 with Final Corrective Action Plan Report for the 80-Acre WSR to fulfill the requirements of the Consent Order (Docket No. P-153-04) issued on November 15, 2004.

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- **3-26-PV-416** - Letter to ADEQ Water Quality Enforcement dated November 8, 2004 with the executed Consent Order (APP #P-3507-100388) for the water storage reservoir liner leakage.
- **3-27-PV-419** - Closure Report Arizona Public Service PVNGS Tonopah, Arizona (Final Report), July 2008, prepared by CH2MHill. Describes removal actions at the retention basins and sampling (H3, RCRA metals, hydrazine).

ER references:

- Cover letters for the various updates to the Notification of Discharge of Non Hazardous materials (tritium) – 90 day Report; dated from 2006 through 2008; cited as **3-28** - APS (2006d), **3-29** - APS (2007a), **3-30** - APS (2007b), **3-31** - APS (2007c), **3-32** - APS (2007d), **3-33** - APS (2008a), and **3-34** - APS (2008b) in the ER Section 2.3.
- **3-35** - Gunter, G. (2006). "Calculation Package Groundwater and Treated Effluent Use," Tetra Tech, SC.
- **3-36**- Lehner, G. (2007). "Treated Effluent Discharges in Area. Email from Gregory Lehner (APS) to Gary Gunter (Tetra Tech NUS), Jan. 10.

4. CULTURAL RESOURCES

- **4-1-PV-183** - ACS (Archaeological Consulting Services, LTD) 2006, "Cultural Resources Survey of Palo Verde Nuclear Generating Station's New Evaporation Pond, South of Wintersburg, Maricopa County, Arizona," January.
- **4-2-PV-031** - Stein, Pat H., 1981, Parts 1 and 2 "The Palo Verde Archaeological Investigations: Part 1 Aboriginal Resources at the Palo Verde Plant Site," and "The Palo Verde Archaeological Investigations: Part 2 Wintersburg An Archaeological, Archival, and Folk Account of Homesteading in Arizona," Museum of Northern Arizona, MNA Research Paper 21.
- **4-3-PV-532** - Provide the context statement prepared for AZ SHPO on Paleoindian and Archaic archaeological sites in Arizona.

5. SOCIOECONOMICS

- **5-1-PV-537** - Provide 2007 and 2008 data on 1) total tax revenues in Maricopa County, 2) total property taxes paid by all Palo Verde owners in Maricopa County (i.e., an update of Table 2-4).
- **5-2-PV-538** - Provide the distribution of local property taxes to the various jurisdictions in Maricopa County listed in paragraph 2, page 2-19.
- **5-3-PV-539** - Provide recent information on the total number of permanent (employed for more than one year), on-site employees and the residential distribution of permanent, on-site employees by county.

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5. SOCIOECONOMICS (continued)

- **5-4-PV-540** - In addition to property tax payment information presented in Section 2.7 of the ER, describe any other major annual support payments, one-time payments, and other forms of non-tax compensation (if any) provided to local organizations, communities, and jurisdictions (e.g., county, municipality, townships, villages, incorporated places, and school districts) on behalf of Palo Verde.
- **5-5-PV-541** - Provide information about any changes in assessed property value or any other recent or anticipated payment adjustments that could result in notable increases or decreases in tax or other payments.
- **5-6-PV-542** - Provide data on 1) the height of stacks, cooling towers, and other plant buildings, and 2) on the visibility of plant facilities and cooling tower plumes from various off-site locations.
- **5-7-PV-543** - Provide the names of the constituent schools that form the Saddle Mountain Unified School District and the District's recent annual budgets; the budget information is required in order to understand the level of impact of Maricopa County's distribution of PVNGS's taxes on the School District.
- **5-8-PV-544** - Provide the distribution and use of the \$1 million charitable trust revenue and annual augmentation donations made by PVNGS and the adjacent cogeneration plant to three area entities and whether the initial \$500,000 investment by each of the two plants into the trust fund reverts back to each utility investor group if their plant ceases to operate.

6. TERRESTRIAL AND AQUATICS

- **6-1-PV-105** - Telecon Record regarding Avian Deaths 2006.
- **6-2-PV-106** - Telecon Record regarding Waterfowl Use of PVNGS Ponds 2006.
- **6-3-PV-034-1 of 4** - Evaporation Pond Investigating Program Final Report 1 of 4.
- **6-3-PV-034-2 of 4** - Evaporation Pond Investigating Program Final Report 2 of 4.
- **6-3-PV-034-3 of 4** - Evaporation Pond Investigating Program Final Report 3 of 4.
- **6-3-PV-034-4 of 4** - Evaporation Pond Investigating Program Final Report 4 of 4.
- **6-4-PV-278** - Waterfowl Die-offs at PVNGS: New & Significant Information? 2007.
- **6-5-PV-279** - U.S. FWS - Contaminants in Fish and Wildlife of the Middle Gila River, Arizona - February 1995.
- **6-6-PV-280** - U.S. FWS - Contaminants in Fish and Wildlife of the Lower Gila River, Arizona - December 1997.
- **6-7-PV-281** - Status of Unlisted Native Fishes of the Gila River Basin – 2004.