UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

OCT 29 2010

Chief
Rulemaking, Directives, and Editing Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

Subject: Plant-Specific Supplement 43 to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Palo Verde Nuclear Generating Station Draft Report for Comment and Draft Supplemental Environmental Impact Statement (DSEIS), Maricopa County, Arizona [CEQ #20100325] NUREG-1437

Dear Sir or Madam:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and our NEPA review authority under Section 309 of the Clean Air Act.

We have rated this DSEIS as EC-2 "Environmental Concerns- Insufficient Information" (see enclosed "Summary of Rating Definitions and Follow-Up Action"). Our rating on this document is based on our concerns regarding potential impacts to wildlife from contaminants in the water, sludge, and sediments of facilities at the Palo Verde Nuclear Generating Station (PVNGS). We recommend that additional information be provided in the Final Supplemental Environmental Impact Statement (FSEIS) on ecological risk associated with these facilities and on air emissions from PVNGS. Our detailed comments are enclosed.

We appreciate the opportunity to review this DSEIS and request a copy of the FSEIS when it is filed with our Washington D.C. office. If you have any questions, please call me at (415) 972-3521, or have your staff call Jeanne Geselbracht at (415) 972-3853.

Sincerely,

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: EPA's "Summary of Rating Definitions"
EPA's detailed comments

Cc: David Drucker, NRC

Palo Verde Nuclear Generating Station DSEIS
EPA Comments – October, 2010

Ecological Risk

The DSEIS (pp. 2-41, 2-42) refers to a 1996 study of aquatic life in ponds and reservoirs at Palo Verde Nuclear Generating Station (PVNGS), which found selenium in the ponds but did not find "metals and contaminants that are typically of concern for these processes." It is unclear what parameters were investigated in that study, which also did not investigate bioaccumulation of contaminants or biomagnification up the food chain. Nuclear Regulatory Commission (NRC) staff conclude that the chemical and physical environment of the reservoirs and ponds should not have changed in the 14 years since the study. The reasons behind this conclusion are unclear. For example, does monitoring show that concentrations of all parameters are essentially the same as they were in 1996? How often are sludges dredged from the ponds and reservoirs? It is unclear from the DSEIS whether compliance with the Arizona Water Quality Standards ensures against ecological risk through exposure, bioaccumulation, and biomagnification of metals or other contaminants that concentrate in the water, sludge, and sediment in the water storage reservoirs, evaporation ponds, and sedimentation basins.

> **Recommendation:** EPA recommends that the Final Supplemental Environmental Impact Statement (FSEIS) provide updated information regarding the parameters and concentrations found in the water, sludge, and sediment in the water storage reservoirs, evaporation ponds, and sedimentation basins. We recommend an ecological risk assessment be conducted to determine the potential effects of wildlife exposure to these facilities. The FSEIS should discuss the findings of this assessment and identify measures that could be implemented to mitigate any adverse impacts. If mitigation measures are needed, the FSEIS and decision record should include commitments to implement them.

Air Quality

Table 2.2.2.1 discloses PVNGS 2004-2008 emissions for criteria air pollutants and hazardous air pollutants (HAPs), but does not include emissions of some greenhouse gases such as carbon dioxide. In addition, the DSEIS (p. 2-32) only identifies benzene as one example of a HAP emitted by the PVNGS, but does not identify other HAPs or provide emission rates for specific HAPs.

> **Recommendation:** EPA recommends that the FSEIS provide this information.

The DSEIS (p. 4-12) states that the Radiological Environmental Monitoring Program (REMP) reports from 2004 through 2008 were reviewed by NRC staff for unusual trends, and none were observed. It is unclear why a trend analysis was only conducted for the previous five-year period rather than for the entire period since the REMP was established in 1979. This would provide a more thorough cumulative analysis of radiological exposures and impacts.

> **Recommendation:** EPA recommends that the FSEIS include an REMP trend analysis for the period from 1979 to present.

The DSEIS (p. 4-13) provides the REMP calculated annual doses to members of the public located outside the PVNGS site boundary from radioactive gaseous effluents released during 2008. The DSEIS indicates that the 2008 radiological effluent data are consistent, with reasonable variation attributable to operating conditions and outages, with the historical radiological effluent releases and resultant doses. However, it is unclear what the variation is for these doses over the years of operation.

Recommendation: EPA recommends that the FSEIS provide this information.