

June 12, 2009

Mr. Steven Spangle
Arizona Ecological Services Field Office
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, AZ 85021

SUBJECT: REQUEST FOR LIST OF FEDERAL PROTECTED SPECIES WITHIN THE
AREA UNDER EVALUATION FOR THE PALO VERDE NUCLEAR
GENERATING STATION, UNITS 1, 2, AND 3, LICENSE RENEWAL
APPLICATION REVIEW

Dear Mr. Spangle:

The U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing an application submitted by Arizona Public Service Company (APS) for the renewal of the operating licenses for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde). Palo Verde is located in Maricopa County, Arizona, approximately 26 miles west of the Phoenix metropolitan area. As part of the review of the license renewal application (LRA), the NRC is preparing a supplemental environmental impact statement (SEIS) under the provisions of Title 10 of the *Code of Federal Regulations* Part 51 (10 CFR Part 51), which is the NRC's regulation that implements the National Environmental Policy Act of 1969. The SEIS includes an analysis of pertinent environmental issues, including endangered or threatened species and impacts to fish and wildlife. This letter is being submitted under the provisions of the Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act of 1934, as amended.

The proposed action would include the use and continued maintenance of existing plant facilities and transmission lines. The Palo Verde site covers approximately 4,280 acres, of which approximately 720 acres are developed. Approximately 605 surface acres of water occur on the site in various large ponds. Facilities on the property include the three reactor containment buildings, three turbine buildings, nine cooling towers, plus various auxiliary buildings, small ponds and retention tanks, an outdoor firing range, various landfills, and the water reclamation facility, which is vital to the plant's operation.

The area surrounding the plant is in the Sonoran Desert of the Basin and Range Physiographic Province. This area is characterized by long hot summers, cool winters, and warm springs. The Palo Verde site is mostly flat, with some small hills and buttes in the area. Elevations in the surrounding area range from 900 to 1,000 feet above mean sea level. Approximately, six miles northwest of the site, the Palo Verde Hills rise rapidly to 2,200 feet. Buckeye Valley, where the Gila River flows, is east and southeast of the site. Aside from the Palo Verde site, little industrial or commercial activity exists in the area.

The owner, APS, stated that it has no plans to alter current operations over the license renewal period. Further, Palo Verde would use existing plant facilities and transmission lines and would not require additional construction or disturbance of new areas if issued a renewed operating license. APS would limit any maintenance activities to previously disturbed areas.

The circulating water system for the Palo Verde plant employs a heat dissipation system that removes waste heat from the condensers and rejects it to the atmosphere using round mechanical draft cooling towers. The circulating water system consists of a main condenser, mechanical draft cooling towers, circulating water pumps, a chemical injection system, and makeup and blowdown systems for each unit. The circulating water pumps take water from the cooling tower basins, provide a continuous flow of water to the main condensers, and discharge back to the cooling towers. The plant has two sources of makeup water for the cooling systems. The primary source is wastewater effluent from sewage treatment plants in the Phoenix area. The secondary source is on-site groundwater wells. Makeup water reservoirs hold and supply makeup water to compensate for blowdown, evaporation, and other losses. Two lined ponds receive and evaporate blowdown and all liquid waste that is not recycled for cooling.

Approximately 530 miles of transmission line corridors that occupy about 13,000 acres of land connect Palo Verde to the transmission system. The corridors pass through agricultural land, open range, and desert. The areas are mostly remote with low population densities, but the lines cross numerous counties and State and U.S. highways. Much of the land crossed is Federal property. The 235-mile-long Palo Verde-to-Devers transmission line passes through relatively undisturbed habitats including the Kofa National Wildlife Refuge in La Paz County, Arizona and the Coachella Valley National Wildlife Refuge in Riverside County, California.

The following transmission lines are owned by Salt River Project except for Devers, which is owned by Southern California Edison, and Rudd, which is jointly owned by APS and Salt River Project:

- Westwing #1 and #2 – two 525-kilovolt lines extending east and north for 45 miles in a 330-foot wide corridor to the Westwing Substation northwest of Phoenix.
- Rudd – one 525-kilovolt line that shares a common corridor with Westwing and runs for 37 miles to the Rudd Substation in Phoenix. After leaving the Westwing corridor, the Rudd corridor is 160 feet wide.
- Hassayampa #1 (or Kyrene) – one 525-kilovolt line that runs south to the Hassayampa Substation for 3 miles, then turning to the southeast for 20 miles to the Jojoba Substation, then runs another 52 miles to the Kyrene Generating Station south of Tempe, Arizona. Other than the 3-mile common corridor it shares with Hassayampa #2 (330 feet wide) the width of the corridor varies from 75 feet to 200 feet.
- Hassayampa #2 – one 525-kilovolt line running in the same corridor with the Hassayampa #1 for 3 miles to the Hassayampa Substation. The combined corridor width is 330 feet.
- Hassayampa #3 – one 525-kilovolt line that parallels the Hassayampa #1 and #2 to the Hassayampa Substation, but has a separate corridor. The line runs south and west in a corridor that is 200 feet wide to the North Gila Substation near Yuma, Arizona.
- Devers – one 525-kilovolt 235-mile line running west from the plant to the Devers Substation north of Palm Springs, California. The corridor width is typically 200 feet.

APS, Salt River Project, and Southern California Edison plan to maintain these transmission lines indefinitely. These transmission lines are to remain a permanent part of the transmission system even after Palo Verde is decommissioned. These transmission line corridors are included in the SEIS process. The enclosed transmission line map shows the transmission system included in the SEIS.

To support the SEIS preparation process and to ensure compliance with Section 7 of the Endangered Species Act, the NRC requests information on federally-listed, proposed, and candidate species and critical habitat that may be in the vicinity of Palo Verde and its associated transmission line rights-of-way. In addition, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act.

The NRC staff plans to hold two public license renewal and environmental scoping meetings on June 25, 2009. We will hold the first session in the afternoon and an identical session later that evening. The afternoon session will be held at the Tonopah Valley High School, 38201 West Indian School Road, Tonopah, Arizona 85354, from 2:00 p.m. until 5:00 p.m., as necessary. The evening session will be held at the Estrella Mountain Community College, 3000 North Dysart Road, Avondale, Arizona 85392, from 7:00 p.m. until 10:00 p.m., as necessary. In addition, the NRC plans to hold a one hour open house prior to each meeting to answer public questions. NRC invites you and your staff to attend the public meetings and open house. Your office will receive a copy of the draft SEIS along with a request for comments. We anticipate a publication date for the draft SEIS in May 2010.

The Palo Verde LRA is available on the internet at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/palo-verde.html>. If you have any questions concerning the NRC staff's review of this LRA, please contact Ms. Lisa Regner, Project Manager, at 301-415-1906 or by e-mail at Lisa.Regner@nrc.gov.

Sincerely,

/RA by Bo M. Pham Acting For/

David J. Wrona, Chief
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-528, 50-529, and 50-530

Enclosures:

1. Palo Verde Site Layout
2. Palo Verde Transmission Systems

cc w/encls: See next page

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Sincerely,
/RA by Bo M. Pham Acting For/
 David J. Wrona, Chief
 Projects Branch 2
 Division of License Renewal
 Office of Nuclear Reactor Regulation

Docket Nos. 50-528, 50-529, and 50-530

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Letter to Steven Spangle from David J. Wrona dated June 12, 2009

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