September 29, 2009

Mr. Randall K. Edington Executive Vice President, Nuclear Mail Station 7602 Arizona Public Service Company P.O. Box 52034 Phoenix, AZ 85072

SUBJECT: ENVIRONMENTAL SITE AUDIT REGARDING PALO VERDE NUCLEAR

GENERATING STATION, UNITS 1, 2, AND 3 (TAC NOS. ME0261, ME0262

AND ME0263)

Dear Mr. Edington:

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing the Arizona Public Service Company (APS) license renewal application for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde). The environmental site audit will be conducted at Palo Verde during the week of October 26, 2009, by NRC and Argonne National Laboratory staff. The environmental audit activities will be conducted in accordance with the enclosed environmental audit plan.

To develop the Supplemental Environmental Impact Statement, the NRC staff requests the information described in the enclosed environmental audit needs list be made available, to the extent possible, during the Palo Verde environmental site audit. A draft schedule of tours and meetings for the audit is also enclosed. The NRC staff informally transmitted this information to Glenn Michael, APS via e-mail on September 11, 2009.

If you have any questions, please contact Lisa Regner by telephone at 301-415-1906 or by e-mail at Lisa.Regner@nrc.gov.

Sincerely,

/RA/

Lisa Regner, Senior Project Manager Projects Branch 2 Division of License Renewal Office of Nuclear Reactor Regulation

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

Enclosures:

- 1. Regulatory Environmental Audit Plan
- 2. Environmental Audit Needs List
- 3. Environmental Audit Draft Schedule

cc w/encls: See next page

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

Enclosures:

- 4. Regulatory Environmental Audit Plan
- 5. Environmental Audit Needs List
- 6. Environmental Audit Draft Schedule

cc w/encls: See next page

DISTRIBUTION:

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ADAMS Accession No. ML092590395

OFFICE	PM:RPB2:DLR	LA:RPOB:DLR	BC:RPB2:DLR	PM:RPB2:DLR
NAME	LRegner	lKing	DWrona	LRegner (signature)
DATE	9/23/09	9/23/09	9/29/09	9/29/09

Letter to R. Edington from L. Regner dated September 29, 2009

DISTRIBUTION:

SUBJECT: ENVIRONMENTAL SITE AUDIT REGARDING PALO VERDE NUCLEAR

GENERATING STATION, UNITS 1, 2, AND 3 (TAC NOS. ME0261, ME0262

AND ME0263)

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RidsNrrDssScvb Resource

RidsOgcMailCenter Resource

LRegner JRikhoff, DLR BMizuno, OGC RTreadway, RIV MHay, RIV NO'Keefe, RIV

Palo Verde Nuclear Generating Station

CC:

Mr. Steve Olea Arizona Corporation Commission 1200 W. Washington Street Phoenix, AZ 85007

Mr. Douglas Kent Porter Senior Counsel Southern California Edison Company Law Department, Generation Resources P.O. Box 800 Rosemead, CA 91770

Senior Resident Inspector U.S. Nuclear Regulatory Commission P.O. Box 40 Buckeye, AZ 85326

Regional Administrator, Region IV U.S. Nuclear Regulatory Commission 612 E. Lamar Blvd., Suite 400 Arlington, TX 76011-4125

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Maricopa County Board of Supervisors
301 W. Jefferson, 10th Floor
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Mr. Aubrey V. Godwin, Director Arizona Radiation Regulatory Agency 4814 S. 40th Street Phoenix. AZ 85040

Mr. Scott Bauer, Director Regulatory Affairs Palo Verde Nuclear Generating Station Mail Station 7636 P.O. Box 52034 Phoenix, AZ 85072-2034

Mr. Dwight C. Mims, Vice President Regulatory Affairs and Plant Improvement Palo Verde Nuclear Generating Station Mail Station 7605 P.O. Box 52034 Phoenix, AZ 85072-2034 Mr. John C. Taylor Director, Nuclear Generation El Paso Electric Company 340 E. Palm Lane, Suite 310 Phoenix, AZ 85004

Mr. James Ray Public Service Company of New Mexico 2401 Aztec NE, MS Z110 Albuquerque, NM 87107-4224

Mr. Geoffrey M. Cook Southern California Edison Company 5000 Pacific Coast Hwy., Bldg. D21 San Clemente, CA 92672

Mr. Robert Henry Salt River Project 6504 E. Thomas Road Scottsdale, AZ 85251

Mr. Jeffrey T. Weikert Assistant General Counsel El Paso Electric Company Mail Location 167 123 W. Mills El Paso, TX 79901

Mr. Eric Tharp Los Angeles Department of Water & Power Southern California Public Power Authority P.O. Box 51111, Room 1255-C Los Angeles, CA 90051-0100

Mr. Brian Almon
Public Utility Commission
William B. Travis Building
P.O. Box 13326
1701 N. Congress Avenue
Austin, TX 78701-3326

Ms. Karen O'Regan Environmental Program Manager City of Phoenix Office of Environmental Programs 200 W. Washington Street Phoenix, AZ 85003

LICENSE RENEWAL ENVIRONMENTAL AUDIT PLAN PALO VERDE NUCLEAR GENERATING STATION

1. Background

By letter dated December 11, 2008, Arizona Public Service Company (APS or applicant) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde) operating licenses NPF–41, NPF–51, and NPF–74. The staff is reviewing the information contained in the environmental report (ER) of the license renewal application (LRA) per Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54).

During the staff's review, an environmental audit is conducted at the Palo Verde site. This audit is conducted with the intent to gain understanding, to verify information, and/or to identify information that will require docketing to support the basis of the licensing or regulatory decision. Specifically, the NRC staff will identify pertinent environmental data, review the site facility and area, and obtain clarifications regarding information that was provided by the applicant in the ER.

Per NRC guidance, the NRC staff prepares a regulatory audit plan that provides a clear overview of audit activities and scope, team assignments, and schedule.

2. Environmental Audit Bases

License renewal requirements are specified in 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants." Licensees are required by 10 CFR 54.23 to submit an ER that complies with the requirements in 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," as part of the LRA. Review guidance for the staff is provided in NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants: Supplement 1 – Operating License Renewal."

NRC staff is required to prepare a site-specific supplement to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants." During the scoping process required in 10 CFR Part 51, NRC staff is required to define the proposed action, identify significant issues which must be studied in depth, and to identify those issues that can be eliminated from further study.

3. Environmental Audit Scope

The scope of this environmental audit for the Palo Verde license renewal is to identify those issues which are significant and those issues which can be eliminated from further study and to identify the environmental resources that must be adequately described and evaluated in the site-specific supplemental Environmental Impact Statement (EIS) for Palo Verde. Audit team members will focus on reviewing the documents and requested information listed in the Palo Verde Environmental Audit Needs List (Enclosure 2) and discussing the information with plant personnel subject matter experts.

4. Information and Other Material Necessary for the Environmental Audit

As described in the Site Audit Needs List (Enclosure 2).

5. Tentative Team Assignments Area of Review Assigned Auditor

The environmental audit team members and their specific discipline assignments are shown in Table 1. Those members of the team who are contractors from Argonne National Laboratory will have ANL after their name.

 Table 1
 Environmental Audit Team Members and Resource Assignments

Discipline	Team Members		
Environmental Project Manager	Lisa Regner, NRC		
Aquatic	Dennis Logan, NRC		
Terrestrial	Briana Balsam, NRC		
Radiological	Steve Klementowicz, NRC		
Hydrology	Dennis Beissel, NRC Terri Patton, ANL		
Air/Meteorology	Ekaterina Lenning, NRC * Young Soo Chang, ANL		
Socioeconomic/Land use	Jeffery Rikhoff, NRC William Metz, ANL		
Cultural Resources	Allison Travers, NRC Konstance Wescott, ANL		
Alternatives	Andrew Stuyvenberg, NRC * Ronald Kolpa, ANL		
Other (electromagnetic fields (EMF) and non-rad waste)	Ekaterina Lenning, NRC *		
* Will not be participating in environmental site audit.			

6. Logistics

The environmental audit will be conducted at Palo Verde from October 27 - 29, 2009. An entrance meeting will be held with plant management at the beginning of the audit. An exit meeting will be held at the end of this audit.

7. Special Requests

The staff requests the applicant make available the information identified on the Environmental Audit Needs List. Plant staff who are subject matter experts in the disciplines listed on the Environmental Site Audit Needs List should be available for interviews and to provide tours which have been identified on the Environmental Audit Draft Schedule (Enclosure 3).

8. Deliverables

A report should be issued by the NRC staff to the applicant within 90 days from the end of the environmental audit.

PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 LICENSE RENEWAL ENVIRONMENTAL SITE AUDIT NEEDS LIST

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed Appendix E, the environmental report (ER) of the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde) license renewal application (LRA) and have found that it meets the requirements of 10 CFR 51.45.

Please make the following available to staff during the environmental site audit.

- 1. AIR, METEROLOGY, CLIMATE (E. Lenning, NRC; Y. Chang, ANL)
 - A-1 Provide a knowledgeable individual to discuss the following aspects of facility operation:
 - details of stationary and mobile sources of criteria and hazardous air pollutants operating on Palo Verde, including, as appropriate, horsepower ratings, fuel consumption, pollution control equipment and its control efficiency, operating records, estimated annual emissions, etc.
 - details on the preventative maintenance schedules for emergency generators and other internal combustion engine sources on Palo Verde (e.g., emergency fire water pumps)
 - results of any air pollution control equipment tests/performance evaluations conducted for stationary sources of criteria pollutants
 - details on the procedures in place for maintenance and repair of HVAC equipment containing ozone depleting substances, including HVAC systems that may be contaminated with airborne radioactive species
 - general specifications for mechanical-draft cooling towers such as dimensions, air and water flow rates, drift loss rate, total dissolved solids concentration, heat rejection rate, drift droplet diameter, etc.
 - information on the chemicals used in treatment of the cooling water in the cooling water system
 - expected upgrade/replacement/retirement activities that could increase or decrease air emissions over the license renewal period
 - A-2 Provide a knowledgeable individual to discuss the following aspects of meteorological data acquisition and management:
 - procedures for calibration and maintenance of on-site meteorological instruments
 - procedures for collection, evaluation, validation, and management of meteorological data, including quality control procedures
 - procedures for reconciling any data anomalies and for dealing with periods when no data are collected
 - A-3 Provide a knowledgeable individual to discuss the following aspects of air monitoring programs operated by the Palo Verde, if any:
 - recent 5-year air monitoring data on and around Palo Verde
 - any data that exceeded the standards or guideline values, their causes and resolutions

- A-4 Provide a knowledgeable individual to discuss noise issues relating to:
 - Noise sources and levels onsite and nearby offsite
 - Noise survey or noise modeling in and around the site
 - Historic noise complaints and their resolutions, if any
 - Nearby sensitive receptors (e.g., residences, schools)
- A-5 Provide copies of relevant sections and correspondence with the Arizona Department of Environmental Quality and/or Maricopa County Air Quality Department relating to:
 - operating permits
 - recent five-year Annual Operating Report and/or Compliance Status Reports submitted to the agency and Notices of Violation
 - data maintained on site that demonstrate compliance with applicable regulations (e.g. operating records for emergency generators that demonstrate eligibility for exempt status)

2. ALTERNATIVES (A. Stuyvenberg, NRC; R. Kolpa, ANL)

- AL-1 Provide a knowledgeable individual who can speak to the following potential impacts from the installation and operation of a coal-burning power generating alternative on the Palo Verde site or elsewhere:
 - What specific areas of the Palo Verde site might be used to support an alternative coal-burning power plant, including areas for coal storage, coal washing (if performed) and on-site storage and disposal of coal combustion waste?
 - What upgrades to transportation infrastructures may be necessary (provide any additional detail available) to support an alternative coal burning facility on the Palo Verde site? For example, the ER indicates that improvements to the onsite rail spur may be necessary.
 - What modifications may be required to cooling system infrastructures in order to allow a coal-fired alternative to rely on the existing cooling system?
 - Where would crews ultimately dispose of coal combustion waste? What are
 the available options for reuse or recycling? Please identify options for waste
 disposal if the projected 90% recycling amount is not realized.
 - What are the potential impacts (qualitative) to ground and surface waters from the short-term storage of waste, as well as on-site disposal.
 - What coal preparation activities may occur on site? For example, would pulverizing, washing, and blending be used to meet National Emissions Standards for Hazardous Air Pollutants (NESHAP's) emission limits?
 - What is the likely chemical constituency of the probable coal source, and what is the potential for generation of hazardous air pollutants from coal combustion (especially mercury)? Would this result in additional pollution control devices to meet NESHAP emission limits for an alternative coal-fired power plant?
- AL-2 Provide a knowledgeable individual who can discuss how alternatives to the nuclear units would affect compliance with the Arizona Renewable Portfolio Standard.

AL-3 Provide, if possible, additional information on the potential for Demand Side Management strategies to serve as alternatives to the proposed action.

3. **CULTURAL RESOURCES** (A. Travers, NRC; K. Wescott, ANL)

- AR-1 Provide a map detailing the level of ground disturbance at the plant; include documentation on how this level of disturbance was determined. Has this understanding of the level of disturbance been coordinated with the Arizona State Historic Preservation Office (SHPO)? In other words, is the Arizona SHPO in agreement that these portions of the plant have been disturbed sufficiently as to preclude the possibility of any significant archaeological resources, including burials, existing in these areas?
- AR-2 Provide a series of aerial photographs of the entire plant site and associated transmission line(s) (during pre-construction, construction, and post-construction periods). These photographs should show the levels of disturbance that occurred during construction or subsequent operation, whether any historic structures or possible sites are present on the property, and identifying any recent projects that will require a review of additional documentation.
- AR-3 Provide United States Geological Survey 7.5 minute topographic quadrangle maps of the plant and associated transmission lines with plant boundaries and transmission lines highlighted. NRC staff will take these to the Arizona SHPO for a file search and return them, if necessary, to the Palo Verde site.
- AR-4 Provide vegetation/land-use maps of the plant and associated transmission line(s).
- AR-5 Provide maps of ownership and land use of the applicant's property and associated transmission lines. Copies of historic plant maps would be useful, if available.
- AR-6 Provide the Environmental Compliance Manual and/or any other environmental review procedures for land-disturbing activities (e.g., trenching, clearing, digging). Examples include procedures 91DP-0EN02 and 37DP-9ZZ11.
- AR-7 Provide transmission line management plan, including timing of activities, herbicide application, and clearing; inspections and repair activities conducted by helicopters or other vehicles; standard operating procedures or guidelines for Palo Verde staff or contractors; technician training programs, and any regulations that restrict maintenance activities (e.g., depth of disturbance along the corridor, if it is necessary). Provide

any other special procedures that prevent impacts to historic and archaeological resources.

- AR-8 Provide information on management around less-developed areas of the plant site, especially near known historic and archaeological resources or near unsurveyed areas, if applicable.
- AR-9 Provide documentation of construction projects that have occurred on the property since the construction of Units 1, 2, and 3 to determine how historic and archaeological resources were considered. Provide any documentation demonstrating compliance with Procedure 91DP-0EN02 regarding historic properties. What materials are used by the Palo Verde staff to determine whether the SHPO should be consulted? Provide copies of survey or mitigation reports performed in conjunction with the plant or transmission line(s), or for other/subsequent plant activities.
- AR-10 Provide an update on the status of Class III cultural resource surveys of the entire Arizona Public Service (APS) Company transmission system. Provide documentation describing the ongoing survey described in the draft license renewal Supplemental Environmental Impact Statement, if available, such as a survey plan or scope of work.
- AR-11 Provide copies of consultation letters and other documentation indicating correspondence with the SHPO and Federally recognized Native American Tribes that have aboriginal ties to the project area.
- AR-12 Provide a knowledgeable individual of the grounds maintenance team to go over the Environmental Compliance Manual to determine how they manage resources, avoid impacting historic and archaeological resources, and deal with inadvertent discovery of historic and archaeological materials and human remains. Is any cultural resource training required for staff?
- AR-13 Provide a knowledgeable individual from the APS staff and right of way (ROW) contractor to discuss ROW maintenance and monitoring and any procedures in place regarding protection of historic properties along transmission line corridors.

Note: NRC archeological staff will meet with the Arizona SHPO staff in Phoenix during the week of the site audit to discuss the LRA and conduct an independent file search.

4. ENVIRONMENTAL JUSTICE (J. Rikhoff, NRC; W. Metz, ANL)

To help address the provisions of Section 4-4 "Subsistence Consumption of Fish and Wildlife" in Executive Order 12898, the following information is needed to assist the NRC in its environmental justice review:

- EJ-1 Provide information about any observed subsistence consumption behavior patterns—specifically fish and wildlife consumption—by minority and low-income populations in the vicinity of Palo Verde. This subsistence consumption behavior could consist of hunting, fishing, and trapping of game animals and any other general food gathering activities (e.g., collecting nuts, berries, and other plant material) conducted by minority and low-income individuals in the vicinity of Palo Verde.
- EJ-2 Provide information about current or past wildlife sampling and testing of game animals such as deer, squirrel, turkey, pheasant, duck, fish and other game birds and animals that may have been conducted in the vicinity of Palo Verde. Wildlife sampling and testing may have been conducted before, during, and after plant construction and in the early days of plant operation, and may have been discontinued after determining that tissue samples consistently showed no significant or measurable radiological impact on the environment from plant operations.

5. HYDROLOGY (D. Beissel, NRC; T. Patton, ANL)

- HD-1 Provide specific information for groundwater wells installed in the regional aquifer (wells 55-613123, 55-613124, and 55-900619), including locations, depths, and yields. Include well logs, if available, and any other wells that are currently inactive.
- HD-2 Provide permits for all on-site wells, including monitoring wells and those that are currently inactive, and monitoring reports for the past five years. Include the Aquifer Protection Permit (APP) and related monitoring reports for the past five years. Also, include the stormwater management plan, if available.
- HD-3 Provide permits for all surface discharges, including surface impoundments, and related monitoring reports submitted to the state for the past five years if they are separate from the APP.
- HD-4 From the past five years, provide any release notifications (Notice of Violations) associated with surface water discharges, septic or sewage systems, water reservoir and evaporation ponds, on-site landfill, groundwater or soil contamination, including spills, leaks, and other releases of fuel solvents, or other chemicals.
- HD-5 From past five years, provide documentation related to any remedial (cleanup) activities at the facility.
- HD-6 Provide environmental site assessments conducted onsite since the facility was built.

- HD-7 Provide a status of the cooling tower replacement project that began in 2008 (cited in ER p. 3-2).
- HD-8 Provide a status of the construction of a new interim 45-acre reservoir and current reservoir repairs (cited in ER p. 3-3).
- HD-9 Provide a status of the construction of the new evaporation pond no. 3 and improvements to existing evaporation pond liner systems (cited in ER p. 3-3).
- HD-10 Provide a knowledgeable individual to discuss the facility's cooling water system, stormwater management system, firewater system, groundwater wells, water reclamation facility, evaporation ponds, on-site landfill, sanitary waste treatment facility, and the requirements and reporting for various monitoring programs (e.g., tritium monitoring).
- HD-11 Provide the opportunity for NRC staff to view Palo Verde's Water Reclamation Facility presentation, if possible.

6. RADIATION PROTECTION (S. Klementowicz, NRC)

- RP-1 Provide information on any on-site spills or leaks documented in accordance with 10 CFR 50.75(g) or Nuclear Energy Institute (NEI) Groundwater Protection Initiative reports.
- RP-2 Provide information on any on-site disposals (10 CFR 20.2002) of radioactive material.
- RP-3 Provide information regarding the on-site radiological groundwater monitoring program.

7. **SOCIOECONOMICS** (J. Rikhoff, NRC; W. Metz, ANL)

- SE-1 If available, 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).
- SE-2 Provide the distribution of local property taxes to the various jurisdictions in Maricopa County listed in paragraph 2, page 2-19.
- SE-3 If available, 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.
- SE-4 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.

- SE-5 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.
- SE-6 Provide information on any studies that have quantified, or considered, the impact of noise from Palo Verde facilities at various locations offsite.
- SE-7 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.

8. TERRESTRIAL ECOLOGY (B. Balsam, NRC)

Invasive Species

- T-1 What species of invasive plants and/or animals have been observed or documented on the Palo Verde site?
- T-2 Are any invasive species populations being managed?

Transmission Line Right of Way (ROW) and ROW Maintenance

- T-3 Page 3-5 of the ER states, "The Greenlee-Rio Grande line was determined not to be related to Palo Verde." Why is this line not considered in scope for license renewal?
- T-4 Page 3-5 of the ER states, "For purposes of this analysis in this environmental report, the line [Hassayampa #3] is considered to be the original 114 miles to North Gila substation." Does the actual length of this line differ from 114 miles? If so, what is the actual length?
- T-5 Section 2.4 refers only to APS when discussing transmission line maintenance. Please clarify which companies maintain transmission lines and transmission line ROWs for each line, if different from the company that owns the line.
- T-6 What pesticides and/or herbicides are used in transmission line ROWs? What protocol do workers follow when applying chemicals near streams and wetlands for each owner: Salt River Project, APS, and Southern California Edison?
- T-7 Provide the following reference for review: "APS Transmission Vegetation Management Program (TVMP) Transmission Corridors 115-230-345-500 kV."
- T-8 Provide vegetation management plans for any other company that maintains in-scope transmission lines, if applicable.

Management Plans and Procedures

T-9 Provide any wildlife management plans that are used on site.

T-10 Provide any best management practices followed for ground-disturbing activities.

Protected Species

T-11 Did the California Department of Fish and Game (CDFG) reply to the letter dated September 28, 2007, from Edward Fox (APS) to Gabbi Gatchel (CDFG) regarding protected species (included in Attachment B of the ER)? If so, provide a copy of the response letter from CDFG.

Maps

- T-12 Provide a topographic map of the Palo Verde site and vicinity that includes the following data, as available:
 - The full length of all in-scope portions of transmission lines
 - Any significant natural heritage areas
 - Stream crossings (if applicable)
 - Known locations of threatened, endangered, or special concern species and/or critical habitat
 - State or Federal wildlife refuges, wildlife management areas, or parks crossed by transmission lines

DRAFT PALO VERDE ENVIRONMENTAL AUDIT SCHEDULE

TIME/DATE	Monday - October 26	Tuesday – October 27	Wednesday – October 28	Thursday – October 29
0800 – noon	NRC and ANL staff will travel to Phoenix on Monday. NRC archeological resources staff will meet with the Arizona SHPO staff in Phoenix to discuss the LRA and conduct an independent file search.	General site Tour Breakout into on-site walking/driving tours – by specific disciplines: 1. Terrestrial Ecology 2. Aquatic Ecology/Hydrology 3. Air-Meteorology 4. Cultural Resources 5. Radiological 6. Socioeconomic-Land Use	Continuation of walking/driving tours, as necessary. 1. Terrestrial Ecology 2. Aquatic Ecology/Hydrology 3. Cultural Resources 4. Socioeconomic-Land Use	Completion of final walking/driving tours and interviews, as necessary.
1300 – 1700	Entrance Meeting at 3:00.	Interviews: 1. Terrestrial Ecology 2. Aquatic Ecology/Hydrology 3. Air-Meteorology-Non Radwaste-TMO-EMF 4. Cultural Resources 5. Radiological 6. Socioeconomic-Land Use	Continuation of interviews from Tuesday afternoon, as necessary.	Exit Meeting at 2:00 NRC and ANL staff return to home offices on Friday.

DRAFT PALO VERDE ENVIRONMENTAL AUDIT TEAM MEMBERS

Discipline	Team Members		
Environmental Project Manager	Lisa Regner, NRC		
Aquatic	Dennis Logan, NRC		
Terrestrial	Briana Balsam, NRC		
Radiological	Steve Klementowicz, NRC		
Hydrology	Dennis Beissel, NRC Terri Patton, ANL		
Air/Meteorology	Ekaterina Lenning, NRC * Young Soo Chang, ANL		
Socioeconomic/Land use	Jeffery Rikhoff, NRC William Metz, ANL		
Cultural Resources	Allison Travers, NRC Konstance Wescott, ANL		
Alternatives	Andrew Stuyvenberg, NRC * Ronald Kolpa, ANL		
Other (electromagnetic fields (EMF) and non-rad waste)	Ekaterina Lenning, NRC *		
* Will not be participating in environmental site audit.			

REQUESTED TOURS

WALKING/DRIVING TOURS:

- General Site Tour
- On-site facilities, particularly the following features:
 - o Cooling towers
 - Water Reclamation Facility
 - Evaporation Ponds
 - Major air emission sources and control equipment
 - o Major indoor/outdoor noise sources and control measure
 - Site boundaries and nearby sensitive receptors (e.g., residences, schools)
 - Sodium hypochlorite manufacturing facility
 - Tour of meteorological tower(s).

ARCHAEOLOGICAL TOUR:

 Archaeological site tour and tour of any areas of historical or cultural interest, preferably led by an archaeologist. The ER indicated that 13 archaeological sites are recorded on the Palo Verde site; however, it is unclear from the text whether those sites are still intact or whether they were disturbed during construction. It is also not clear whether the survey that recorded those sites covered the entire Palo Verde plant site or just the area originally under construction.

TRANSMISSION LINE TOUR:

 Transmission line tour including examples (or discussion) of maintenance and monitoring activities. Also, show examples of archaeological sites along the transmission lines, if any, and how these sites are monitored and protected (archaeological staff – 2).

RADIOLOGICAL TOUR:

- Radioactive waste storage.
- Radioactive effluent release points.
- Radioactive effluent monitoring systems.
- Radiological environmental monitoring stations (including any co located State monitoring stations).