



A subsidiary of Pinnacle West Capital Corporation

Palo Verde Nuclear
Generating Station

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102-06523-DCM/MAM/TLC
May 11, 2012

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528, 50-529, and 50-530
60-Day Response to NRC Letter, Request for Information Pursuant to
Title 10 of the Code of Federal Regulations 50.54(f) Regarding
Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force
Review of Insights from the Fukushima Dai-ichi Accident, dated
March 12, 2012**

On March 12, 2012, the NRC staff issued a letter entitled, *Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident*. Enclosure 5 of the letter contains specific Requested Actions and Requested Information associated with Recommendation 9.3 for Emergency Preparedness (EP) programs. In accordance with 10 CFR 50.54, "Conditions of licenses," paragraph (f), addressees were requested to submit a written response to the information requests within 90 days.

The letter states that if an addressee cannot meet the requested response date, then the addressee must provide a response within 60 days of the date of the letter and describe the alternative course of action that it proposes to take, including the basis of the acceptability of the proposed alternative course of action and estimated completion date. After a careful review of the requested actions and information, Arizona Public Service (APS) proposes to take the alternative course of action described in Enclosure 1 of this letter. The basis for our proposal is explained in Enclosure 2.

Regulatory commitments made in this submittal are listed in Enclosure 3.

*A001
MRA*

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U.S. Nuclear Regulatory Commission
60 Day Response to 50.54(f) Letter Regarding Recommendation 9.3
Page 2

Should you have any questions concerning the content of this letter, please contact Mark McGhee, Operations Support Manager, Regulatory Affairs, at (623) 393-4972.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 5/11/12
(Date)

Sincerely,



DCM/MAM/TLC/hsc

Enclosure 1 - Proposed Alternative Course of Action for Responding to Recommendation 9.3 Information Request

Enclosure 2 - Basis for Proposed Alternative Course of Action for Responding to EP Requested Information

Enclosure 3 - List of Regulatory Commitments

cc:	E. J. Leeds,	NRC Director, Office of Nuclear Reactor Regulation
	E. E. Collins Jr.	NRC Region IV Regional Administrator
	B. K. Singal	NRC NRR Project Manager for PVNGS
	L. K. Gibson	NRC NRR Project Manager
	J. R. Hall	NRC NRR Senior Project Manager
	M. A. Brown	NRC Senior Resident Inspector for PVNGS

Enclosure 1
Proposed Alternative Course of Action for
Responding to Recommendation 9.3 Information Request

Communications

Request #	Estimated Completion Date	Requested Information
1	10/31/2012	<p>Provide an assessment of the current communications systems and equipment used during an emergency event to identify any enhancements that may be needed to ensure communications are maintained during a large scale natural event meeting the conditions described in Enclosure 5 of the March 12, 2012 NRC letter. The assessment should:</p> <ul style="list-style-type: none"> • Identify any planned or potential improvements to existing onsite communications systems and their required normal and/or backup power supplies, • Identify any planned or potential improvements to existing offsite communications systems and their required normal and/or backup power supplies, • Provide a description of any new communications system(s) or technologies that will be deployed based upon the assumed conditions described above, and • Provide a description of how the new and/or improved systems and power supplies will be able to provide for communications during a loss of all AC power.
2	6/11/2012	<p>Describe any interim actions that have been taken or are planned to be taken to enhance existing communications systems power supplies until the communications assessment and the resulting actions are complete.</p>
3	<p>Two Dates</p> <p>9/28/2012</p> <p>10/31/2012</p>	<p>Provide an implementation schedule of the time needed to conduct and implement the results of the communications assessment.</p> <p>Conduct the communications assessment.</p> <p>Provide and implementation schedule of the time needed to implement the results of the communications assessment.</p>

Enclosure 1

**Proposed Alternative Course of Action for Responding
to Recommendation 9.3 Information Request**

Staffing

Request #	Estimated Completion Date	Requested Information
1	Two Dates	<p>Provide an assessment of the onsite and augmented staff needed to respond to a large scale natural event meeting the conditions described in Enclosure 5 of the March 12, 2012 NRC letter. This assessment should include a discussion of the onsite and augmented staff available to implement the strategies as discussed in the emergency plan and/or described in plant operating procedures. The following functions are requested to be assessed:</p> <ul style="list-style-type: none"> • How onsite staff will move back-up equipment (e.g., pumps, generators) from alternate onsite storage facilities to repair locations at each reactor as described in the order regarding the NTTF Recommendation 4.2. It is requested that consideration be given to the major functional areas of NUREG-0654, Table B-1, such as plant operations and assessment of operational aspects, emergency direction and control, notification/communication, radiological accident assessment, and support of operational accident assessment, as appropriate. • New staff or functions identified as a result of the assessment. • Collateral duties (personnel not being prevented from timely performance of their assigned functions).
	4/30/2013	Provide onsite and augmented staffing assessment considering all requested functions except those related to NTTF Recommendation 4.2. [Phase 1 staffing assessment]
	4 months prior to beginning of 1R18 refueling outage* (est. June 2014)	<p>Provide onsite and augmented staffing assessment considering functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessment]</p> <p><i>* As used within the context of NRC Order EA-12-049, the Phase 2 staffing assessment needs to be completed within 4 months prior to the beginning of the second refueling outage for procedural and training purposes. The 1R17 outage counts as the first refueling outage because the overall integrated plan will be submitted February 28, 2013.</i></p>

Enclosure 1
**Proposed Alternative Course of Action for Responding
to Recommendation 9.3 Information Request**

Request #	Estimated Completion Date	Requested Information
2	Four dates	Provide an implementation schedule of the time needed to conduct the onsite and augmented staffing assessment. If any modifications are determined to be appropriate, please include in the schedule the time to implement the changes.
	3/29/2013	1. Conduct the onsite and augmented staffing assessment: The onsite and augmented staffing assessment considering all requested functions except those related to NTTF Recommendation 4.2. [Phase 1 staffing assessment]
	5 months prior to beginning of 1R18 refueling outage* (est. May 2014)	The onsite and augmented staffing assessment considering functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessment]
	4/30/2013	2. A schedule of the time needed to implement changes will be provided as follows: Those associated with the Phase 1 staffing assessment.
	4 months prior to beginning of 1R18 refueling outage* (est. June 2014)	Those associated with the Phase 2 staffing assessment. <i>* As used within the context of NRC Order EA-12-049, the Phase 2 staffing assessment needs to be completed within 4 months prior to the beginning of the second refueling outage for procedural and training purposes. The 1R17 outage counts as the first refueling outage because the overall integrated plan will be submitted February 28, 2013.</i>
3	6/11/2012	Identify how the augmented staff would be notified given degraded communications capabilities.

Enclosure 1

**Proposed Alternative Course of Action for Responding
to Recommendation 9.3 Information Request**

Request #	Estimated Completion Date	Requested Information
4	6/11/2012	Identify the methods of access (e.g., roadways, navigable bodies of water and dockage, airlift, etc.) to the site that are expected to be available after a widespread large scale natural event.
5	6/11/2012	Identify any interim actions that have been taken or are planned prior to the completion of the staffing assessment.
6	<p style="text-align: center;">Two Dates</p> <p style="text-align: center;">4/30/2013</p> <p style="text-align: center;">4 months prior to beginning of 1R18 refueling outage* (est. June 2014)</p>	<p>Identify changes that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all AC power, multi-unit event, including any new or revised agreements with offsite resource providers (e.g., staffing, equipment, transportation, etc.).</p> <p>Changes will be identified as follows:</p> <p>Those associated with the Phase 1 staffing assessment.</p> <p>Those associated with the Phase 2 staffing assessment.</p> <p><i>* As used within the context of NRC Order EA-12-049, the Phase 2 staffing assessment needs to be completed within 4 months prior to the beginning of the second refueling outage for procedural and training purposes. The 1R17 outage counts as the first refueling outage because the overall integrated plan will be submitted February 28, 2013.</i></p>

Enclosure 2
 Basis for Proposed Alternative Course of Action for
 Responding to EP Requested Information

Communications

There are two separate responses to the information requests related to communications. The alternative timing of responses to requests #1 and #3 proposed in this letter reflects the higher priority placed by the staff, and approved by the Commission in SRM-SECY-12-0025, upon the completion of licensee actions necessary to comply with the Final EP Rule issued on November 23, 2011 (76 FR 72560). The proposed alternative timing is warranted as many of the licensee staff resources necessary for performing the communications assessment are the same resources involved in implementing the new EP Rule requirements, responding to Institute of Nuclear Power Operations (INPO) initiatives related to enhancing communications capabilities (e.g., IER 11-4), and maintaining existing EP communications equipment.

In addition, the estimated completion date assigned to information request #3 will promote alignment between the out-year budgeting/funding of future enhancements, and the development of an accurate and complete enhancement implementation schedule.

Staffing

As presented in Enclosure 1 of this letter, a 2-phase approach will be used to respond to the information requests associated with Staffing. The table below summarizes this approach.

<i>Plant Type</i>	<i>Phase 1 Staffing Assessment (for functions except those related to NTTF Recommendation 4.2)</i>	<i>Phase 2 Staffing Assessment (for functions related to NTTF Recommendation 4.2)</i>
Multi-unit plants	<ul style="list-style-type: none"> • Perform staffing assessment and implement actions as required by recent EP Rule using ISG and NEI 10-05 • Perform staffing assessment as requested by 50.54(f) letter using NEI 12-01 and material from NEI 10-05; provide results per Enclosure 1 of this letter 	Perform staffing assessment as requested by 50.54(f) letter using NEI 12-01; provide results per Enclosure 1 of this letter

Enclosure 2
**Basis for Proposed Alternative Course of Action
for Responding to EP Requested Information**

The basis for this approach is discussed below:

- For multi-unit plants, the Phase 1 staffing assessment will be performed by March 29, 2013, and provided by April 30, 2013. This assessment will consider all requested functions except those related to Fukushima Near-Term Task Force (NTTF) Recommendation 4.2. An assessment considering these functions will be performed in Phase 2.

The timing of the Phase 1 staffing assessment reflects the higher priority placed by the staff, and approved by the Commission in SRM-SECY-12-0025, upon the completion of licensee actions necessary to comply with the Final EP Rule issued on November 23, 2011 (76 FR 72560). In particular, Section IV.A.9 of 10 CFR 50, Appendix E, requires that licensees complete a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan. As stated in the EP Rule, this analysis must be completed by December 24, 2012.

Following completion of EP Rule staffing analysis, the staffing assessment associated with the NRC Letter will be performed. Based on staffing analysis experience to date, it is anticipated that a multi-unit staffing analysis will require approximately 3 months to complete and validate. One additional month is allotted for processing of an assessment submittal package.

As requested, an implementation schedule for any modifications that are determined to be appropriate will be included with the Phase 1 staffing assessment.

- The Phase 2 staffing assessment will be performed by a date five months prior to the beginning of 1R18 refueling outage (*estimated May 2014*) and provided by a date four months prior to beginning of 1R18 refueling outage (*estimated June 2014*). This assessment will consider the requested functions related to Fukushima Near-Term Task Force (NTTF) Recommendation 4.2.

The Industry will be responding to multiple regulatory actions resulting from the recommendations contained in the Fukushima NTTF Report, as modified in related Commission Papers (SECY's) and Staff Requirements Memoranda (SRM). One of these actions, in particular, has the potential to impact emergency response staffing levels. This action is associated with Fukushima NTTF Recommendation 4.2 and subsequently issued as NRC order to Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events EA-12-049 [the Order]. A summary of the Order is provided below.

Enclosure 2
Basis for Proposed Alternative Course of Action
for Responding to EP Requested Information

This Order requires a three-phase approach for mitigating beyond-design-basis external events. The initial phase requires the use of installed equipment and resources to maintain or restore core cooling, containment and spent fuel pool (SFP) cooling. The transition phase requires providing sufficient, portable, onsite equipment and consumables to maintain or restore these functions until they can be accomplished with resources brought from offsite. The final phase requires obtaining sufficient offsite resources to sustain those functions indefinitely.

Additional details on an acceptable approach for complying with this Order will be contained in final Interim Staff Guidance (ISG) scheduled to be issued by the NRC in August 2012.

In response to the Order, each licensee must develop new strategies for mitigating beyond-design-basis external events. To ensure accurate results, the staffing assessment for response functions related to NTTF Recommendation 4.2 must be based on the actions delineated in procedures and guidelines developed in response to the Order. Once the site-specific actions associated with the new response strategies are defined (e.g., down to the procedure or guideline step level), the staffing needed to perform these actions can be assessed with the necessary level of accuracy.

Based on a review of the planned actions necessary to comply with the Order, an assessment of the staffing for the functions related to NTTF Recommendation 4.2 will be provided by 4 months prior to the first occurrence of a second refueling outage at the site (i.e., the first "second refueling outage") as used within the context of NRC Order EA-12-049.

As requested, an implementation schedule for any modifications that are determined to be appropriate will be included with the Phase 2 staffing assessment.

The Phase 2 staffing assessment is one component of the overall work plan necessary to implement the requirements of the Order. Arizona Public Service Company, as stated in the Order, "...shall complete full implementation no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a, or December 31, 2016, whichever comes first." "Full compliance shall include procedures, guidance, training, and acquisition, staging, or installing of equipment needed for the strategies."

Enclosure 3

List of Regulatory Commitments

The following table identifies the regulatory commitments in this document. Any other statements in this submittal represent intended or planned actions. They are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	RCTSAI NUMBER	SCHEDULED COMPLETION DATE
1. Provide an assessment of the current communications systems and equipment used during an emergency event to identify any enhancements that may be needed to ensure communications are maintained during a large scale natural event meeting the conditions described.	4157234	10/31/2012
2. Provide an implementation schedule of the time needed to conduct and implement the results of the communications assessment.	4157289	10/31/2012
3. Conduct and provide results for an onsite and augmented staffing assessment considering all requested functions except those related to NTTF Recommendation 4.2. [Phase 1 staffing assessment for Staffing Request #1]	4157309	4/30/2013
4. Conduct and provide results for an onsite and augmented staffing assessment considering functions related to NTTF Recommendation 4.2. [Phase 2 staffing assessment for Staffing Request #1]	4157351	4 months prior to beginning of 1R18 refueling outage (estimated June 2014)
5. Provide information requested in Communications Request #2 and Staffing Requests #3, #4, and #5.	4157395	6/11/2012
6. Provide a schedule of the time needed to implement changes associated with the Phase 1 staffing assessment [for Staffing Request #2].	4157451	4/30/2013
7. Provide a schedule of the time needed to implement changes associated with the Phase 2 staffing assessment. [for Staffing Request #2]	457467	4 months prior to beginning of 1R18 refueling outage (estimated June 2014)

Enclosure 3
List of Regulatory Commitments

COMMITMENT	RCTSAI NUMBER	SCHEDULED COMPLETION DATE
8. Identify changes associated with the Phase 1 staffing assessment that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all AC power, multi-unit event, including any new or revised agreements with offsite resource providers [for Staffing Request #6].	4157477	4/30/2013
9. Identify changes associated with the Phase 2 staffing assessment that have been made or will be made to your emergency plan regarding the on-shift or augmented staffing changes necessary to respond to a loss of all AC power, multi-unit event, including any new or revised agreements with offsite resource providers [for Staffing Request #6].	4157485	4 months prior to beginning of 1R18 refueling outage <i>(estimated June 2014)</i>