10 CFR 50.54(f)

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102-06800-DCM/PJH
December 12, 2013

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

Reference: NRC Letter, *Request for Additional Information Associated With Near-Term Task Force Recommendation 2.3 Seismic Walkdowns*, dated November 1, 2013 (ADAMS Accession Number ML13304B418)

Dear Sirs:

Subject: **Palo Verde Nuclear Generating Station (PVNGS)**
Units 1, 2, and 3
Docket Nos. STN 50-528, 50-529, and 50-530
Response to Request For Additional Information Associated With Near-Term Task Force Recommendation 2.3, Seismic Walkdowns

On November 1, 2013, the U. S. Nuclear Regulatory Commission (NRC) issued the reference letter to Arizona Public Service Company (APS). The reference letter is a Request for Additional Information (RAI) associated with Seismic Recommendation 2.3, regarding seismic walkdowns.

The reference letter requested that APS provide a response within 30 days. APS contacted the NRC staff on November 21, 2013, to request an extension of the due date. The NRC authorized an extension until December 13, 2013.

The enclosure to this letter provides the APS response to the RAI.

No commitments are made in this letter.

A001
NRR

Should you need further information regarding this response, please contact Mark McGhee, Department Leader Nuclear Regulatory Affairs, at (623) 393-4972.

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

Executed on DECEMBER 12, 2013
(Date)

Sincerely,

FOR D. C. MIMS

DCM/PJH/hsc

Enclosure: Response to NRC RAI Associated With Seismic Walkdowns

cc:

M. L. Dapas	NRC Region IV Regional Administrator
J. K. Rankin	NRC NRR Project Manager [electronic and hard copy]
L. M. Regner	NRC NRR Project Manager [electronic and hard copy]
M. A. Brown	NRC Senior Resident Inspector for PVNGS

ENCLOSURE

Response to NRC RAI Associated With Seismic Walkdowns

INTRODUCTION

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff issued a letter requesting additional information per Title 10 of the *Code of Federal Regulations,* Section 50.54(f) (hereafter called the 50.54(f) letter). The 50.54(f) letter requested that licensees conduct seismic hazard walkdowns to verify the plant configuration with the current licensing basis. The licensees stated by letter that the seismic walkdowns would be performed in accordance with Electric Power Research Institute EPRI-1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic.* Following the NRC staff's initial review of the seismic walkdown reports, regulatory site audits were conducted at a sampling of plants. Based on the walkdown report reviews and site audits, the staff identified additional information that is necessary to allow the staff to complete its assessments. By letter dated November 1, 2013, the NRC staff provided a request for additional information (RAI) to Arizona Public Service Company (APS).

This enclosure is the APS response to the RAI regarding seismic walkdowns. The NRC staff introductory information in the November 1, 2013 letter, related to the basis for the RAI, is not included in this enclosure. The requested information is restated, followed by the APS response.

RAI Number 1 - Conduct of the walkdowns, determination of potentially adverse seismic conditions (PASCs), dispositioning of issues, and reporting

"... please provide a description of the overall process used by the licensee (and its contractors) to evaluate observations identified in the field by the [seismic walkdown engineers] SWEs. The process should include how a field observation was determined to be a PASC or not and how the bases for determinations were recorded. Once a determination was made that an observation was a PASC, describe the process for creating a condition report (or other tracking mechanism), performing the [licensing basis evaluation] LBE (or other determination method), and the resultant action, such as entering it into the [corrective action program] CAP, or documenting the result and basis."

"Also in order to confirm that the reported information supports concluding that the plant meets the [current licensing basis] CLB, please follow one of the following three acceptable alternatives:

> *(a) Provide a supplement to the table or text from the original walkdown report, if needed, to include similar conditions as the above examples and situations and for conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination ...*
>
> *(b) Following the plant's standard procedures, confirm that a new CAP entry has been made to verify if appropriate actions were taken when reporting and dispositioning identified PASCs (including conditions for which a*

calculation, analysis (if more than a simple analysis), or evaluation was used for a determination) ...

(c) If no new conditions are identified for addition to the supplement or the CAP entry mentioned above is deemed not necessary, provide a statement of confirmation that all potentially adverse seismic conditions (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination) identified during the walkdowns and walk-bys were addressed and included in the report to the NRC."

APS Response

Consistent with alternative 1(c) of the RAI, APS confirms that all potentially adverse seismic conditions [including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination] identified during the walkdowns and walk-bys have been addressed and are included in the reports submitted to the NRC. The process and the methodology of the original walkdowns and walk-bys were also applied during the supplemental walkdowns and walk-bys in each unit, performed during outages.

At the Palo Verde Nuclear Generating Station (PVNGS), the process applied during the walkdowns and walk-bys was for the SWEs to use engineering judgment [based upon experience and training, supplemented by existing current licensing basis (CLB) plant documentation and analyses, where applicable] to identify potentially adverse seismic conditions. Observations identified in the field requiring judgment to conclude whether the component or area met the CLB had the supporting technical basis clearly documented in the applicable seismic walkdown checklist (SWC) or area walk-by checklist (AWC). All field determinations were denoted by Yes ("Y"), No ("N"), or Unknown ("U") as follows:

- Components or areas determined in the field to meet CLB were denoted as "Y" on the checklists, and no further action was taken.

- Components or areas determined to *not* meet CLB were denoted as "N" on the checklists, after which the corrective action program was entered by generating a Palo Verde Action Request (PVAR). The PVAR was documented in both Section 4.3 and the respective checklist of the Walkdown Report. No further action as part of the Seismic Walkdown evaluation process (including Licensing Basis Evaluations) was taken at this point, since the component or area was immediately evaluated not to be consistent with the CLB.

- Components or areas for which conditions could not be determined to meet the CLB were considered potentially adverse seismic conditions (PASC) and denoted as "U" on the checklists. These items were then evaluated further under the Licensing Basis Evaluation (LBE) process and are documented in Appendix D of the walkdown report. Exceptions to this included electrical components whose interiors could not be inspected during the at-power walkdowns. These items were also denoted as "U" and deferred for additional

inspection during the next outage, in accordance with FAQ 4.20. The field determination process was repeated during the supplemental inspections.

Refer to Figure 1 for the Seismic Walkdown Evaluation Flow Chart

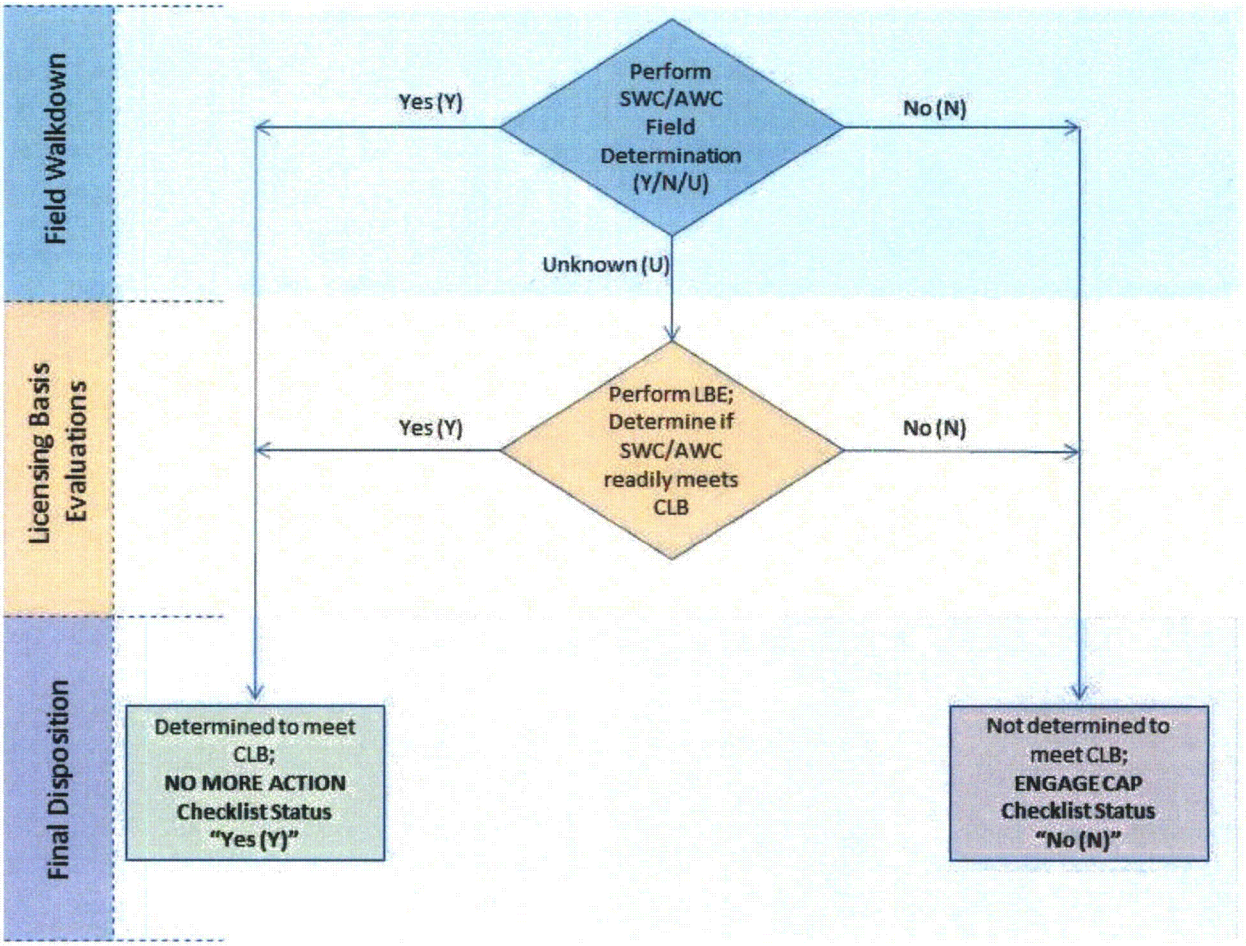

Figure 1 - Seismic Walkdown Evaluation Flow Chart

RAI Number 2 - Conduct of the Peer Review Process

"As a result of the walkdown report reviews, the NRC staff noted that some descriptions of the peer reviewers and the peer review process that was followed were varied and, in some cases, unclear. In some cases, the staff could not confirm details of the process, such as if the entire process was reviewed by the peer review team, who were the peer reviewers, what was the role of each peer reviewer, and how the reviews affected the work, if at all, described in the walkdown guidance."

"Therefore, in order to clarify the peer review process that was actually used, please confirm whether the following information on the peer review process was provided in the original submittal, and if not, provide the following:

> *(a) Confirmation that the activities described in the walkdown guidance on page 6-1 were assessed as part of the peer review process.*
>
> *(b) A complete summary of the peer review process and activities. Details should include confirmation that any individual involved in performing any given walkdown activity was not a peer reviewer for that same activity. If there were cases in which peer reviewers reviewed their own work, please justify how this is in accordance with the objectives of the peer review efforts."*

"Also, if there are differences from the original submittal, please provide a description of the above information. If there are differences in the review areas or the manner in which the peer reviews were conducted, describe the actual process that was used."

APS Response

APS confirms that the seismic walkdowns were performed in accordance with the guidance of Electric Power Research Institute EPRI-1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, page 6-1. This included peer reviews of:

- Selection of the structures, system and components (SSCs) included in the seismic walkdown equipment lists (SWEL)
- Checklists prepared for the seismic walkdowns and area walk-bys (sampling)
- Licensing basis evaluations
- Decisions for entering potentially adverse conditions into the corrective action process
- Submittal reports, both original and supplemental reports for each PVNGS unit

Peer reviews for both the original and the subsequent supplemental inspections conformed to the EPRI-1025286 peer review guidance. Individuals involved in performing any given walkdown activity were not peer reviewers for that same activity.