



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

May 13, 2011

Mr. Randall K. Edington  
Executive Vice President, Nuclear/CNO  
Mail Station 7602  
Arizona Public Service Company  
P.O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION – NRC TEMPORARY  
INSTRUCTION 2515/183 INSPECTION REPORT 05000528/2011006,  
05000529/2011006, and 05000530/2011006

Dear Mr. Edington:

On April 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Palo Verde Nuclear Generating Station using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on May 5, 2011, with Mr. R. Barnes, Director, Regulatory Affairs, and other members of your staff.

The objective of this inspection was to assess the adequacy of actions taken at Palo Verde Nuclear Generating Station in response to the Fukushima Daiichi Nuclear Station fuel damage event. The results from this inspection, along with the results from similar inspections at other operating commercial nuclear plants in the United States, will be used to evaluate the United States nuclear industry's readiness to respond to a similar event. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report. You are not required to respond to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Arizona Public Service Company

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Sincerely,

*/RA/*

Ryan Lantz, Chief  
Project Branch D  
Division of Reactor Projects

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

License Nos.: NPF-41  
NPF-51  
NPF-74

Enclosure:  
Inspection Report 05000528/2011006, 05000529/2011006,  
and 05000530/2011006  
w/Attachment: Supplemental Information

cc w/enclosure:

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 DRS Director ([Anton.Vegel@nrc.gov](mailto:Anton.Vegel@nrc.gov))  
 Senior Resident Inspector ([Tony.Brown@nrc.gov](mailto:Tony.Brown@nrc.gov))  
 Resident Inspector ([Joseph.Bashore@nrc.gov](mailto:Joseph.Bashore@nrc.gov))  
 Resident Inspector ([Mica.Baquera@nrc.gov](mailto:Mica.Baquera@nrc.gov))  
 Branch Chief, DRP/D ([Ryan.Lantz@nrc.gov](mailto:Ryan.Lantz@nrc.gov))  
 PV Administrative Assistant ([Regina.McFadden@nrc.gov](mailto:Regina.McFadden@nrc.gov))  
 Senior Project Engineer, DRP/D ([Don.Allen@nrc.gov](mailto:Don.Allen@nrc.gov))  
 Project Engineer, DRP/D ([Zachary.Hollcraft@nrc.gov](mailto:Zachary.Hollcraft@nrc.gov))  
 Public Affairs Officer ([Victor.Dricks@nrc.gov](mailto:Victor.Dricks@nrc.gov))  
 Public Affairs Officer ([Lara.Uselding@nrc.gov](mailto:Lara.Uselding@nrc.gov))  
 Project Manager ([Lauren.Gibson@nrc.gov](mailto:Lauren.Gibson@nrc.gov))  
 Branch Chief, DRS/TSB ([Michael.Hay@nrc.gov](mailto:Michael.Hay@nrc.gov))  
 RITS Coordinator ([Marisa.Herrera@nrc.gov](mailto:Marisa.Herrera@nrc.gov))  
 Regional Counsel ([Karla.Fuller@nrc.gov](mailto:Karla.Fuller@nrc.gov))  
 Congressional Affairs Officer ([Jenny.Weil@nrc.gov](mailto:Jenny.Weil@nrc.gov))  
 NRR\DIRS\IRIB ([Timothy.Kobetz@nrc.gov](mailto:Timothy.Kobetz@nrc.gov))  
 OEMail Resource  
 ROPreports  
 RIV/ETA:OEDO ([Stephanie.Bush-Goddard@nrc.gov](mailto:Stephanie.Bush-Goddard@nrc.gov))  
 DRS/TSB STA ([Dale.Powers@nrc.gov](mailto:Dale.Powers@nrc.gov))

R:\\_REACTORS\TI-183\PV2011006-TI-TB.docx ADAMS ML

ADAMS: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		<input checked="" type="checkbox"/> SUNSI Review Complete	Reviewer Initials:RL
		<input checked="" type="checkbox"/> Publicly Available	<input checked="" type="checkbox"/> Non-Sensitive
		<input type="checkbox"/> Non-publicly Available	<input type="checkbox"/> Sensitive
SRI:DRP/D	DRS/TSB	C:DRP/D	
TBrown	ERuesch	RLantz	
<b>DBA for -E</b>	<b>/RA/</b>	<b>/RA/</b>	
05/10/2011	05/11/2011	05/10/2011	

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**U. S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000528, 05000529, 05000530

License: NPF-41, NPF-51, NPF-74

Report: 05000528/2011006, 05000529/2011006, and 05000530/2011006

Licensee: Arizona Public Service Company

Facility: Palo Verde Nuclear Generating Station, Units 1, 2, and 3

Location: 5951 S. Wintersburg Road  
Tonopah, Arizona

Dates: March 23 through April 29, 2011

Inspectors: M. Brown, Senior Resident Inspector  
J. Bashore, Resident Inspector  
M. Baquera, Resident Inspector

Approved By: Ryan Lantz, Chief, Project Branch D  
Division of Reactor Projects

## **SUMMARY OF FINDINGS**

IR 05000528/2011006, 05000529/2011006, and 05000530/2011006, 03/23/2011 – 04/29/2011; Palo Verde Nuclear Generating Station, Units 1, 2, and 3, Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced temporary instruction inspection. The inspection was conducted by resident and Region IV inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

## **INSPECTION SCOPE**

The intent of the temporary instruction is to be a high-level look at the industry's preparedness for events that may exceed the design basis for a plant. The focus of the temporary instruction was on (1) assessing the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats; (2) assessing the licensee's capability to mitigate station blackout conditions; (3) assessing the licensee's capability to mitigate internal and external flooding events required by station design; and (4) assessing the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific followup inspection will be performed at a later date.

## **INSPECTION RESULTS**

The following table documents the NRC inspection at Palo Verde Nuclear Generating Station performed in accordance with Temporary Instruction 2515/183. The numbering system in the table corresponds to the inspection items in the temporary instruction.

**03.01 Assess the licensee’s capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 CFR 50.54(hh). Use Inspection Procedure 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If Inspection Procedure 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:**

Licensee Action	Describe what the licensee did to test or inspect equipment.
<p>a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee cross-referenced applicable equipment utilized in Procedure 79IS-9ZZ05, "PVNGS Severe Accident Mitigation Guidelines," to applicable procedures and verified through test and/or inspection that the equipment was available and functional. The licensee tested active equipment and walked down and inspected passive equipment.</p>
	<p>Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).</p>
	<p>The inspectors walked down several of the strategies implemented in Procedure 79IS-9ZZ05 with fire department and operations department personnel. The inspectors verified that equipment was available to implement the procedures. The inspectors examined the B.5.b equipment trailer and hose trailer and verified equipment identified in the procedures was present in the trailers and properly labeled. The inspectors discussed the results of the walkdowns and inspections with the licensee and reviewed the records of the team’s verification activities.</p>
	<p>Discuss general results including corrective actions by licensee.</p>
	<p>The licensee identified that the severe accident management guidelines do not specify vehicle size to transport the B.5.b trailer. The licensee also identified that some equipment available to perform required actions, such as fire ladders, were not dedicated or labeled for B.5.b purposes. The licensee entered these issues into the corrective action program.</p>

	<p>The inspectors concluded that the licensee adequately incorporated B.5.b requirements into station procedures and adequately staged and maintained the equipment necessary to implement the strategies. Specific equipment is clearly labeled, inventoried, and inspected on a regular basis to ensure the availability and reliability of the equipment if needed.</p>
<p>Licensee Action</p>	<p>Describe the licensee's actions to verify that procedures are in place and can be executed (e.g., walkdowns, demonstrations, tests, etc.)</p>
<p>b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee verified through walkdowns that procedures required to implement B.5.b strategies are in place and are executable. The licensee validated Severe Accident Management Guidelines, Appendices 1-7 (non-B.5.b strategies), by tabletop exercises while Appendices 8-17 (B.5.b strategies) were validated by plant walkdowns and equipment verification. Additionally, the licensee validated procedures associated with the actions of the technical support center, emergency operations facility, and backup emergency operations facility.</p> <p>Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.</p> <p>The inspectors walked down several B.5.b strategy procedures with representatives of the fire department and operations department. Specific strategies included alternate methods of spent fuel pool cooling, manual operation of the turbine-driven auxiliary feedwater pump, and utilization of fire protection equipment to provide feedwater injection to the steam generators as an alternate core cooling method. The inspectors discussed the results of the walkdowns and inspections with the licensee and reviewed the records of the licensee's verification activities.</p> <p>Discuss general results including corrective actions by licensee.</p>

	<p>The licensee identified that severe accident management guidelines not directly related to B.5.b response (Appendices 1-7) were difficult to use and entered this issue into the corrective action program.</p> <p>The inspectors concluded that procedures designed to implement the strategies associated with B.5.b could be executed by the licensee.</p>
<p>Licensee Action</p>	<p>Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.</p>
<p>c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to B.5.b and severe accident management guidelines as required by 10 CFR 50.54(hh).</p>	<p>The licensee verified that the qualifications of personnel needed to implement the procedures and work instructions are current. The licensee verified that personnel qualifications, as required by department policies, are in accordance with procedures. The licensee reviewed qualifications for all plant operators, fire department personnel, security personnel, and emergency response organization personnel.</p> <p>Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.</p> <p>The inspectors reviewed training records for fire department personnel and training schedules for operations department personnel. The inspectors interviewed operators regarding B.5.b training. Additionally, the inspectors walked down several strategies with fire department personnel and plant operators to verify their ability to identify required equipment and successfully implement the procedures. The inspectors reviewed the records of activities performed by the licensee to verify that necessary plant personnel are properly qualified to implement the emergency plan and severe accident management guidelines and that all required qualifications are current.</p>

	<p>Discuss general results including corrective actions by licensee.</p> <p>The licensee identified that nonlicensed operators, reactor operators, senior reactor operators, and shift technical advisors do not have specific task qualifications on specific actions required by various severe accident management guidelines. The licensee initiated corrective actions to add these tasks to initial and continuous training requirements. The licensee identified that severe accident management guideline training is not included for specific emergency response organization positions. The licensee entered these issues into the corrective action program.</p> <p>The inspectors concluded plant personnel are capable of implementing the procedures related to B.5.b and severe accident management guidelines, however, training program weaknesses could challenge operators if not corrected.</p>
<p>Licensee Action</p>	<p>Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.</p>
<p>d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee reviewed each memorandum of understanding for external support. Each memorandum of understanding was evaluated to verify they are current and that no gaps exist to execute the memorandum of understanding.</p> <p>For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current).</p> <p>The inspectors independently reviewed standing agreements and contracts that are in place with offsite entities.</p>

	<p>Discuss general results including corrective actions by licensee.</p>
	<p>The licensee did not identify any issues associated with current agreements. The inspectors verified that the agreements and contracts were current.</p>
<p>Licensee Action</p>	<p>Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy.</p>
<p>e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted.</p>	<p>The licensee did not identify any problems that have significant potential to prevent the success of any existing mitigating strategy.</p> <p>The licensee initiated 22 Palo Verde Action Requests associated with this section. Condition Report Action Item 3668452 tracks the list of issues.</p> <p>Although the licensee identified some issues in the implementation of the severe accident management guideline actions and response personnel training, Palo Verde would be able to fulfill the necessary response. Most of the issues identified constituted minor discrepancies with procedures or enhancements to improve the site's capability to respond to events.</p>

**03.02 Assess the licensee's capability to mitigate station blackout (conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to Temporary Instruction 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22," as a guideline. It is not intended that Temporary Instruction 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:**

<p>Licensee Action</p>	<p>Describe the licensee's actions to verify the adequacy of equipment needed to mitigate a station blackout event.</p>
<p>a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>The licensee reviewed the emergency operating procedures designed to mitigate station blackout and identified the standard appendices that potentially contained operator actions outside the control room (AO actions). For all applicable standard appendices, the licensee identified all necessary equipment and verified that the equipment was available, staged, and functional.</p> <p>Describe inspector actions to verify equipment is available and useable.</p> <p>The inspectors reviewed the station blackout procedures to verify availability of any required equipment. The inspectors observed a routine surveillance test of a station blackout generator and verified that operators were able to successfully start and load the station blackout generators. The inspectors also reviewed past surveillance test records for the two station blackout generators.</p> <p>Discuss general results including corrective actions by licensee.</p> <p>The licensee identified that some equipment necessary to implement station blackout procedures (such as door stops, breaker racking tools, and portable lanterns) are available but not designated for station blackout or specifically identified in procedures. The licensee entered this issue into the corrective action program.</p> <p>The inspectors concluded that all required materials needed to mitigate a station blackout are adequate and properly staged, tested, and maintained.</p>

Licensee Action	Describe the licensee's actions to verify the capability to mitigate a station blackout event.
<p>b. Demonstrate through walkdowns that procedures for response to a station blackout are executable.</p>	<p>The licensee reviewed the emergency operating procedures designed to mitigate station blackout and identified the standard appendices that potentially contained operator actions outside the control room (AO actions). Those that contained actions outside the control room were verified by plant walkdowns. Additionally, the licensee conducted a training evolution with licensed operators in the simulator to verify the ability of control room operators to implement the procedures for station blackout.</p>
	<p>Describe inspector actions to assess whether procedures were in place and could be used as intended.</p>
	<p>The inspectors reviewed records of the walkdowns completed by the licensee to verify that station blackout procedures were executable. Additionally, the inspectors observed the station blackout scenario in the simulator with licensed operators. The inspectors verified operators were able to successfully implement the station blackout procedure from the control room.</p>
	<p>Discuss general results including corrective actions by licensee.</p>
	<p>The licensee identified that one appendix would be difficult to implement. It was associated with operation of the non-safety related auxiliary feedwater pump during station blackout and required local monitoring of instrument air pressure and emergency nitrogen supply. Additional issues identified during this review were entered into the Palo Verde corrective action program as enhancements to improve the site's response during a station blackout event. The licensee initiated 23 Palo Verde Action Requests associated with this section. Condition Report Action Item 3668452 tracks the list of issues.</p> <p>The inspectors concluded that procedures required for station blackout response are executable.</p>

**03.03 Assess the licensee’s capability to mitigate internal and external flooding events required by station design. Refer to Inspection Procedure 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding," as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.**

<p>Licensee Action</p>	<p>Describe the licensee’s actions to verify the capability to mitigate existing design basis flooding events.</p>
<p>a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>Palo Verde is not susceptible to any external flooding events. The licensee reviewed the Updated Final Safety Analysis Report and reverified that no credible external flooding scenarios exist. For internal flooding events, the licensee conducted walkdowns and inspections of the following locations to verify that flood barriers, penetration seals and doors were functional: auxiliary buildings, diesel buildings, main steam support structure buildings, control buildings, and essential pipe and condensate storage tank tunnels. The licensee verified that credited drain and sump valves were functional and preventive maintenance had been conducted as required.</p> <p>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</p> <p>The inspectors reviewed the Updated Final Safety Analysis Report to verify that Palo Verde is not susceptible to external flooding events. The inspectors reviewed the licensee’s records associated with their walkdowns and inspections. In addition, the inspectors performed two internal flooding inspection samples in accordance with Inspection Procedure 71111.06 for the Unit 3 safety injection pump rooms and Unit 1 condensate storage tank tunnel and auxiliary feedwater pump rooms.</p>

	<p>Discuss general results including corrective actions by licensee.</p>
	<p>The licensee identified some barriers that did not meet the documented plant configuration during the walkdowns and entered the issues into the corrective action program. The licensee also identified some enhancements that were entered into the corrective action program. The licensee initiated 12 Palo Verde Action Requests associated with this section. Condition Report Action Item 3668452 tracks the list of issues.</p> <p>The inspectors concluded that the issues did not affect the ability of structures, systems, and components to mitigate internal flooding threats and also concluded that procedures were in place and could be used as intended.</p>

**03.04 Assess the thoroughness of the licensee’s walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment’s function could be lost during seismic events possible for the site. Assess the licensee’s development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use Inspection Procedure 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee’s walkdowns and inspections.**

<p>Licensee Action</p>	<p>Describe the licensee’s actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies.</p>
<p>a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>The licensee conducted walkdowns and inspections of internal flooding barriers, as described in Section 03.03, and fire protection equipment to assess the material condition of the equipment. Additionally, the licensee convened a group of senior personnel to postulate impacts to mitigation of flood and fire following a safe shutdown earthquake. The licensee also conducted a review of the severe accident management guidelines to verify that the required material would be available following a safe shutdown earthquake.</p>

	<p>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</p>
	<p>The inspectors reviewed the results of licensee plant walkdowns. The inspectors also walked down fire protection equipment with the Palo Verde fire marshal. In addition, the inspectors walked down internal flooding mitigation equipment as part of the internal flooding inspection. The inspectors discussed the results with the licensee.</p>
	<p>Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.</p>
	<p>The licensee identified the following issues: some penetration seals, designed nonseismic, could fail during a seismic event, allowing water intrusion into rooms containing electrical safe shutdown equipment; three nonsafety-related tanks near each unit could rupture and cause water intrusion into the plant; and internal flooding calculations do not include water introduced by fire department personnel fighting fires within the plant following a seismic event. The licensee also identified potential flooding vulnerabilities in the diesel generator and electrical switchgear rooms based on revisions to the internal flooding probabilistic risk assessment. The licensee entered these issues into the corrective action program. The licensee initiated six Palo Verde Action Requests associated with this section. Condition Report Action Item 3668452 tracks the list of issues. The licensee did not identify any new mitigating strategies.</p> <p>The inspectors concluded that equipment is available and useable and procedures are in place and can be used as intended.</p>

### **EXIT MEETING SUMMARY**

The inspectors presented the inspection results to Mr. R. Barnes, Director, Regulatory Affairs, and other members of licensee management at the conclusion of the inspection on May 5, 2011. While some proprietary information was reviewed during this inspection, no proprietary information was included in this report.

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee

R. Barnes, Director, Regulatory Affairs  
R. Bement, Senior Vice President, Site Operations  
J. Cadogan, Director, Plant Engineering  
D. Dailey, Control Room Supervisor, Unit 3 Operations  
D. Hautala, Senior Engineer, Regulatory Affairs  
M. Heider, Nuclear Engineering Department Leader  
G. Hettel, Plant Manager  
M. McGhee, Compliance Section Leader, Nuclear Regulatory Affairs  
D. Mims, Senior Vice President, Regulatory and Oversight  
M. Powell, Director, Nuclear Fuels Management  
M. Webb, Compliance Section Leader, Nuclear Regulatory Affairs

### LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

#### **03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events**

#### MISCELLANEOUS

<u>NUMBER</u>	<u>DESCRIPTION OR TITLE</u>	<u>DATE / REVISION</u>
79IS-9ZZ05	PVNGS Severe Accident Management Guidelines	11
14FT-9FP06	Fire Equipment Locker and Emergency Equipment Cabinet Inspection	18
14FT-9FP72	Monthly B.5.b Fire Department Equipment Inspection	5
	Table Top Review of SAMG Procedure 79IS-9ZZ05 Purpose and Conclusions	March 23, 2011
	Meeting Minutes: Response to Recommendation #1 Challenge Meeting	March 22, 2011
Qual Report	Fire Department Personnel Qualification Report	April 5, 2011

PALO VERDE ACTION REQUESTS

3672239	3672240	3672238	3672241	3672530	3673594	3673914
3673681	3675234	3675285	3663915	3675332	3660895	3675885
3675079	3674704	3660925	3675253	3676705	3681773	3681811
3682356	3688742					

**03.02 Assess the licensee's capability to mitigate station blackout conditions**

MISCELLANEOUS

<u>NUMBER</u>	<u>DESCRIPTION OR TITLE</u>	<u>DATE / REVISION</u>
40ST-9GT03	Station Blackout Generator 2 Monthly Test	3
	Operations Training Schedule: Topics Related to Severe Accidents	
Task Analysis Summary	Implement blackout instructions and contingencies	April 8, 2011
NLR10S0505 01	Licensed Operator Continuing Training: Restore off site power to PBA-S03 energized from EDG B	November 23, 2010
NLR11S0104 01	Licensed Operator Continuing Training: Loss of Offsite Power	January 8, 2011
NLR11S0102001	Licensed Operator Continuing Training: Blackout	December 28, 2010
	Meeting Minutes: Recommendation #2 Challenge Meeting	March 29, 2011

PALO VERDE ACTION REQUESTS

3675296	3675281	3675617	3675612	3675602	3676312	3676322
3675815	3670272	3676582	3676584	3676589	3676575	3676569
3676639	3676555	3676606	3676986	3676848	3676810	3678954
3685422	3688767					

**03.03 Assess the licensee’s capability to mitigate internal and external flooding events required by station design**

MISCELLANEOUS

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>DATE</u>
	Meeting Minutes: Recommendation #3 Challenge Meeting	April 1, 2011

PALO VERDE ACTION REQUESTS

3677487	3676535	3678383	3678404	3678539	3678553	3678557
3678562	3678575	3678643	3678645	3676111		

**03.04 Assess the thoroughness of the licensee’s walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment’s function could be lost during seismic events**

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
14FT-0FP05	Monthly Diesel Driven Fire Pump Start and Run	21
14FT-1FP02	Motor Driven Fire Pump Start and Run	11

PALO VERDE ACTION REQUESTS

3674096	3676199	3676180	3676179	3683952	3688494
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