UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

May 13, 2011

Mr. Joseph Pollock, Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 3–NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT 05000286/2011009

Dear Mr. Pollock:

On April 27, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Indian Point Nuclear Generating Unit 3, 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 April 28, 2011, with you and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Indian Point Nuclear Generating Unit 3 to respond to extraordinary consequences similar to those that have recently occurred at the Japanese Fukushima Daiichi Nuclear Station. The results from this inspection, along with the results from this inspection performed at other operating commercial nuclear plants in the United States will be used to evaluate the United States nuclear industry's readiness to safely respond to similar events. 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 (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Lawrence T. Doerflein

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

Docket No.: 50-286
License No.: DPR-64

Enclosure: Inspection Report No. 05000286/2011009

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/RA/

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REGION I

Docket No:	50-286
License No:	DPR-64
Report No:	05000286/2011009
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	Indian Point Nuclear Generating Unit 3
Location:	450 Broadway, GSB Buchanan, NY 10511-0249
Dates:	April 18, 2011 through April 27, 2011
Inspectors:	P. Cataldo, Senior Resident Inspector – Indian Point 3 M. Catts, Senior Resident Inspector – Indian Point 2 O. Ayegbusi, Resident Inspector – Indian Point 2
Approved by:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000286/2011009; 04/18/2011 – 04/27/2011; Indian Point Nuclear Generating Unit 3; Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced Temporary Instruction (TI) inspection. The inspection was conducted by three resident 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 TI is to provide a broad overview of the industry's preparedness for events that may exceed the current design basis for a plant. The focus of the TI was on (1) assessing the licensee's capability to mitigate consequences from large fires or explosions on site, (2) assessing the licensee's capability to mitigate station blackout (SBO) conditions, (3) assessing the licensee's capability to mitigate internal and external flooding events accounted for by the station's 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

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.

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 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 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.
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. This review should be done for a reasonable sample of mitigating strategies/equipment.	Entergy completed a combination of review and validation of functionality of B.5.b and severe accident management guideline (SAMG) permanent and non-permanent equipment (staged/stored) used for accident mitigation. This review also included equipment inventory and inspection, as necessary, as well as validation through actual demonstration (portable pump) and inspection (walkdown of various, necessary connections/pathways for implementation of strategies).
	Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).
	Inspectors reviewed and/or walked down various B.5.b and SAMG equipment to verify permanent and staged equipment was available and/or functional. For example, B.5.b trailer equipment inventories were verified through a walkdown, including the portable diesel pump and necessary hoses, nozzles and fuel. Inspectors also verified, following the most-recent refueling outage, that the spent fuel pool (SFP) was configured to ensure compliance with B.5.b requirements (NRC EA-02-026). Inspectors reviewed functionality of hydrogen recombiners that were recently tested, which are used in SAMG strategies to mitigate hydrogen generated in the vapor containment (VC). Inspectors identified an enhancement regarding the lack of specificity in the procedure 3-SCG-2 strategy for venting the VC by alternate means, in that no specifics regarding application of defeating an interlock to open certain valves were contained in the procedure.

		Discuss general results including corrective actions by licensee.
		The inspectors concluded all B.5.B and SAMG equipment was functional to support execution of all strategies. Some enhancements were identified by Entergy, but none were significant to preclude successful execution of all strategies.
Licensee Action		Describe the licensee's actions to verify that procedures are in place and can be executed (e.g., walkdowns, demonstrations, tests, etc.).
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. This review should be done for a reasonable sample of mitigating strategies/equipment.		Entergy performed walkdowns and table-top reviews of procedures and strategies for B.5.b scenarios. These reviews and walkdowns were performed for permanently and non-permanently installed equipment to verify execution was possible. SAMG procedures were walked down via table-top method by a cross-functional team to validate they were executable. These procedures were validated to be present in the central control room (CCR) and emergency response (ER) facilities.
		Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.
		Inspectors verified that a sample of B.5.b and SAMG strategies were executable, through demonstrated walkdowns and/or tabletop discussions with a currently-licensed IP3 senior reactor operator, and others, as well as record reviews. For example, the inspectors validated execution of B.5.b SFP external spray and SAMG reactor coolant system (RCS) injection and VC Venting, and reviewed availability of the strategies to reduce hydrogen concentration in the VC. This validation included a review of the corrective action program (CAP) for deficiencies in this area.

		Discuss general results including corrective actions by licensee.
		The inspectors concluded the procedures to implement the B.5.b and SAMG were in place and executable. Entergy identified some enhancements, such as the need for pavement markings for portable pump location to ensure no obstructions.
Licensee Action		Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.
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 Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).		Entergy reviewed training in the general task qualifications for licensed operator initial training/licensed operator refresher training (LOIT/LORT), and identified 50 licensed operators (9 of which are fire brigade qualified), and 63 non-licensed operators between both units, a majority of which are fire brigade members, currently trained to perform B.5.b strategies. From a SAMG perspective, Entergy verified necessary personnel were qualified with the requisite skills and knowledge, including all non-licensed operators (NLOs) (all 50 were qualified as CCR implementers), four SAMG decision-makers and five SAMG evaluators.
		Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.
		The inspectors reviewed lesson plan materials for the various tasks performed under B.5.b and SAMG. The inspectors verified the periodicity of SAMG/B.5.b initial and refresher training for licensed and non-licensed operators, and the necessary technical support center (TSC) personnel required for SAMG implementation. This validation included a review of the CAP for deficiencies in this area.
		Discuss general results including corrective actions by licensee.

		No significant deficiencies were identified by Entergy regarding training and qualifications. Based on the reviews conducted, the inspectors concluded that the training and qualifications of operators and the support staff needed to implement the procedures and work instructions were current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).
Licensee Action		Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.
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. This review should be done for a reasonable sample of mitigating strategies/equipment.		Entergy verified all relevant memoranda of understanding (MOU), contracts and support agreements were in place to support accident mitigation for both B.5.b and SAMG strategies.
		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).
		The inspectors reviewed a sample of contracts, MOUs and support agreements set forth in the Indian Point Fire & Emergency Medical Services Mutual Aid Plan (August 2005). In particular, the inspectors verified that first responders and first/second and third alarm responders have committed to provide the requisite equipment and materials to address and or supplement certain B.5.b scenario accident mitigation.
		Discuss general results including corrective actions by licensee.
		No significant deficiencies were identified by Entergy. The inspectors concluded that applicable agreements and contracts were in place and were capable of meeting the conditions needed to mitigate the consequences of the events.

Licensee Action		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.
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.		CR-IP2-2011-01467 identified the need to evaluate the beyond design and licensing bases aspects of simultaneous B.5.b events on both units. In particular, Entergy identified potential challenges for a postulated event beyond the scope of B.5.b that could impact both units where B.5.b equipment could be useful in mitigating core damage. The inspector reviewed corrective action reports associated with these mitigation strategies and found that none of the issues have significant potential to prevent the success of any existing mitigating strategy.

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

a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.		Entergy verified through review and walkdowns that non-permanent equipment was staged and available for use, and that permanent equipment was being maintained in accordance with current licensing basis requirements.
		Describe inspector actions to verify equipment is available and useable.
		The inspectors selected a sample of procedures and field actions to verify equipment was available and properly maintained. This review also included: verification of selected emergency power lights, including recent testing; review of completed IP3 Appendix R/SBO diesel generator timing and load testing; review of completed preventive maintenance (PM) activities on common buswork breakers essential for cross-unit power-sharing; and verification of the availability of emergency radios to support implementation of field actions. This validation included a review of the CAP for deficiencies in this area.
		Discuss general results including corrective actions by licensee.
		No significant deficiencies were identified by Entergy. The inspectors concluded that required materials were properly staged, tested, and maintained, and inventory and testing procedures were adequate.
Licensee Action		Describe the licensee's actions to verify the capability to mitigate an SBO event.

b. Demonstrate through walkdowns that procedures for response to an SBO are executable.		Entergy performed SBO procedure reviews and walkdowns, with particular emphasis on field action verification, table tops and simulator validation.
		Describe inspector actions to assess whether procedures were in place and could be used as intended.
		The inspectors performed a walkdown of the procedures for operation of the Unit 3 Appendix R/SBO diesel generator as the alternate AC power source. The inspectors also verified, through a walkdown with licensed SROs from both IP2 and IP3, the adequacy of procedures for energization of 6.9kV buswork on IP3 from IP2. This walkthrough also verified the capability to backfeed IP3 electrical power from specific emergency diesel generators (EDGs) to 6.9kV buswork on IP2. The inspectors validated through field walkthrough with a licensed SRO, the nitrogen-assisted backup method for manual operation of steam generator atmospheric dump valves (ADV), utilized for secondary heat sink control, following a loss of instrument air.
		Discuss general results including corrective actions by licensee.
		No significant deficiencies were identified by Entergy. The inspectors determined the SBO procedures were in place and executable. However, the inspectors identified a minor issue associated with the adequacy of routine monitoring backup nitrogen cylinder pressures for the manual operation of the ADVs. The licensee entered the issue into the corrective action program for resolution.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 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.	
Licensee Action	Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	Entergy reviewed licensing and design bases information to identify equipment and procedures to mitigate internal and external flooding. Once identified, Entergy inspected equipment during plant walkdowns to verify flood protection features were satisfactory (e.g., met existing design and licensing bases requirements) and functional. In addition, surveillance procedures, where applicable, were reviewed to ensure continued functionality to ensure equipment would perform satisfactorily, if required. Entergy also identified flood-related procedures associated with permanently-installed equipment that have associated surveillance testing performed periodically to ensure functionality. These procedures were walked through in a table-top format to ensure execution was possible. For non-permanently installed equipment, or equipment not surveillance tested, Entergy performed field walkdowns to ensure implementation was possible, and where applicable, identified potential mitigation capability to supplement current strategies.
	Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.

		The inspectors selected a number of risk significant equipment areas to validate protection against flood-related events. The auxiliary feedwater (AFW) pump room and emergency diesel generator (EDG) rooms were evaluated for internal flood impacts, and the service water (SW) intake structure was reviewed for external flooding effects. This review included design basis flood calculations, equipment performance records, and procedure walkdowns (AOP-Flood-1) that included field walkdown of selected areas to validate adequate mitigation against flooding events. In addition, a review of Entergy's resolution of SW zurn strainer penetration deficiencies was performed utilizing the permanent plant modification baseline inspection (71111.18). In particular, the review of this design change evaluated the installation of appropriate hydrostatic penetration seals to assure design basis flood waters do not impact safety-related SW strainers, as well as the installation of a valve to prevent backflow into the zurn strainer area. Other reviews included AFW discharge check valve testing based on main feedwater (MFW) line breaks, AFW pump room door louver functionality, and EDG 24 inch overflow drain design requirements. This validation included a review of the CAP for deficiencies in this area.

		Discuss general results including corrective actions by licensee.
		The inspectors did not identify any significant deficiencies. The inspectors concluded that all required materials are adequate and properly staged, tested, and maintained to respond to an internal or external flood within the plant's design basis. While no operability or significant concerns were identified, the licensee identified issues with the onsite availability of submersible pumps and sandbags needed at certain flood levels. The inspectors identified a minor issue regarding a Turbine Building floor drain supplemental inflatable plug that was not suitable for installation. Entergy entered these issues into their CAP; the associated condition reports are listed in the Attachment to this report. The inspectors reviewed the associated condition reports and determined that the licensee's initial responses, including their assessment and prioritization, were appropriate.

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 IP 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.

Licensee Action		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.
a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.		Entergy performed walkdowns of the equipment utilized/required for mitigation of fire and flood events, and assessed the ability of this equipment to withstand a safe shutdown earthquake (SSE). For equipment judged as not likely to survive a SSE, Entergy identified a mitigating strategy as an alternate method to cope with the loss of the associated fire suppression or flood protection function. Additionally, for those items that were considered non-seismic, they were evaluated by a seismic qualification utility group (SQUG) qualified engineer to judge the structural capability to withstand the effects from the design basis SSE.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.

		The inspectors evaluated the applicable seismic design basis calculations for plant areas, including: the AFW Pump Room, the EDG rooms, and the Intake Structure. The review included fire protection (FP) and city water (CW) piping located in these selected areas, which are used for backup accident mitigation, as well as fire suppression, as originally designed. The review also included temporary and/or permanent structures and the potential for seismic interaction and resultant fire/flooding impacts that could adversely affect equipment performance, satisfactory completion of strategy execution and accident mitigation. For example, the inspectors verified that the stacked trailers were able to withstand a seismic event and not interfere with local operator actions during implementation of SBO actions previously discussed under Section 03.02. The review verified whether selected structures, systems, or components important to safety would be adversely impacted by fire or flooding following a seismic event. The inspectors utilized resident inspector baseline inspection (71111.18) to evaluate the recent seismic monitor and accelerometer replacements to ensure a seismic event would be properly recorded and annunciated to initiate site response to seismic events (Unit 3 instrumentation is utilized for both Units 2 and 3). This evaluation included a review of the CAP for deficiencies in this area.
		Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.
		The inspectors concluded that Entergy satisfied the current licensing and design bases for B.5.b, fire protection and flooding. Entergy determined that the site response to a flood would not be compromised by the design basis SSE. Entergy identified (CR-IP2-2011-1681) that the site response to a fire, following a SSE, would present potential vulnerabilities. The potential vulnerabilities stem from the fact that the fire protection system is: in some areas, installed in non-safety related buildings; comprised of buried/underground fire headers; consist of fire pumps that are impacted by non-seismic cinder-block walls; and city water makeup supply to the fuel storage building is not seismically designed, and could result in loss of portions of the fire protection system following a SSE. Entergy's mitigation strategy for these potential vulnerabilities includes immediate response by the onsite fire brigade, through established Pre-Fire Plans, and supplemented, as necessary, by external organizations through implementation of the Indian Point Fire and Emergency Medical Services Response and Mutual Aid Plan.

		Additionally, Entergy staged submersible pumps in a common Unit 1 location, which was determined to be seismically robust (i.e., likely to withstand an earthquake). An additional vulnerability identified for Unit 3, is that carbon dioxide tanks used for fire mitigation, are not seismically qualified. This vulnerability could result in the loss of fire suppression in various non-safety and safety-related areas, such as the turbine building, the EDG rooms, and the vital 480V switchgear room, following a design basis SSE. However, manual suppression using available equipment would be utilized, if necessary, to address any fire suppression needs if the carbon dioxide tanks are unavailable. In reviewing seismic vulnerabilities associated with this TI, the inspectors identified additional conditions that are outside the design and licensing bases that could present a challenge during a seismic or other event. Specifically: 1. Generally, reactor sites were not required and did not implement mitigating actions to cope with an SBO in conjunction with a seismic event; and 2. During beyond design basis events, in which the SAMGs direct depressurizing the PWR containment, conditions could exist in which mitigation equipment is damaged due to elevated containment pressures and potentially prevent containment depressurization and/or isolation. Generic issues associated with SBO and SAMG are currently under review by a NRC Task Force following up on the Fukushima Daiichi Nuclear Station fuel damage event. A condition report, CR-IP2-2011-1467, was generated by the licensee as a part of their inspection to evaluate acquiring additional equipment to mitigate beyond design basis vulnerabilities.

Meetings

4OA6 Exit Meeting

On April 28, 2011, the inspectors presented the inspection results to Mr. Joseph Pollock, Site Vice President, and other members of licensee management at the conclusion of the inspection. Proprietary information reviewed by the inspectors during the inspection was returned to the licensee. The inspectors verified the inspection report does not contain proprietary information.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee
J. Ryan, IP3 SRO
S. Prussman, Licensing
V. Meyers, Design Engineering Supervisor
K. Lo, Design Engineer
R. Rubenstein, IPEC Training
K. Brooks, IP2 SRO
W. Wittich, Senior Engineer, Programs and Components

Other

G. Tarbell, Fire Protection Specialist, Bureau of Fire Protection

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

Procedures:

3-SOP-ESP-002, Emergency Contingency Plan, Rev. 7
3-SCG-2, SAMG - Depressurize Containment, Rev. 3
0-PT-Q003, B.5.b Equipment Inventory and Diesel Driven Pump Test, Rev. 5
3-SAG-3, SAMG - Inject into the RCS, Rev. 2
3-SAG-7, SAMG - Reduce Containment Hydrogen, Rev. 1
0-CY-1810, Diesel Fuel Oil Monitoring, Rev. 10
0-CA-3, SAMG - Hydrogen Flammability in Containment, Rev. 1
3-DFC, SAMG - Diagnostic Flow Chart, Rev. 1
0-SCST, SAMG - Severe Challenge Status Tree, Rev. 1

Condition Reports:

CR-IP3-11-2540, NRC-Identified Lack of Details in 3-SCG-2, 4/27/11
CR-IP2-11-1467, Enhancement to B.5.b Response Capability, 3/23/11
CR-IP3-11-2244, 32 Hydrogen Recombiner Failed Surveillance, 4/10/11
CR-IP2-11-1413, Enhancement to SAMG Procedures, 3/19/11
CR-IP2-11-1412, Revision to 3-SCG-2, VC Vent Method Listed with Actual Piping System Capped and Unavailable, 3/19/11

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions

Procedures:

3-ECA-0.0, Loss of All AC Power, Rev. 4
3-PT-2Y014, Appendix R Diesel Generator Rated Load and Overspeed Test, Rev. 1
3-PT-M080, Emergency Battery Light Unit Functional Test, Rev. 19
3-PT-R138, Main Steam Atmospheric Dump Valves Backup Nitrogen Supply, Rev. 6
3-SOP-EL-005, Operation of On-Site Power Sources, Rev. 39
3-SOP-ESP-001, Local Equipment Operation and Contingency Actions, Rev.20
OAP-115, Attachment 5, Unit 3 Time Critical Operator Actions, Rev. 12

Completed Tests:

0-BRK-406-ELC, Westinghouse 6900 Volt Breaker Inspection and Cleaning, 3/21/11 and 3/24/10
3-BKR-002-ELC, Siemens-Allis 6900 Volt (#3060-001) Breaker and Allis-Chalmers 6900 Volt (#3060-002) Breaker Inspection and Testing, 11/30/09
3-BKR-016-CUB, Westinghouse 480V Switchgear Cubicle Inspection and Cleaning, 10/13/06
3-BKR-017-ELC, Current Sensor and/or Trip Unit Replacement, Setting and Testing, 10/10/06
3-BKR-018-ELC, Inspection, Lubrication, and Testing of Westinghouse 480 Vac DS 532/632 Breakers, 10/4/06

Calculations/Evaluations:

IP3-CALC-MULT-382, Calculation for N2 Backup to Atmospheric Dump Valves, Rev. 3

Completed Tests/Activities:

3-RND-CV, Conventional Rounds for ADV Nitrogen Cylinder Pressures, 11/09/2008 - 4/24/11

Condition Reports:

CR-IP2-11-1479, Enhancements to Aid in Rapid Operator Location of Specific MOVs were Identified, 3/23/11
CR-IP3-11-1733, Enhancements to EDG Operating Procedure Identified during IER Review, 3/26/11
CR-IP3-11-2457, NRC-Identified Inconsistency Between Rounds and Design Basis Calculation for ADVs, 4/21/11

Other:

IP3-10909, Ops. Feedback Form to 3-SOP-ESP-001, 4/19/11
TI-2515/120, Inspection of Implementation of SBO Rule, 9/24/93

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

Procedures:

3-AOP-FLOOD-1, Flooding, Rev. 5

Completed Tests/Activites:
IP3-03-10958, WO: PM Inspection on EDG Sump Pump Motors

Drawings:

9321-F-21463, Intake Structure Floor and Wall Sleeves, Rev. 8
9321-F-40463, Diesel Generator Building Floor Drains, Rev. 5

Condition Reports:

CR-IP2-11-1539, Flooding Equipment Enhancements, 3/28/11
CR-IP3-11-2459, Zurn Pit Design Change Details, Penetration Sealant, 4/21/11
CR-IP3-10-3336, CDBI Zurn Strainer West Wall Flooding Vulnerability, 10/28/10

Other:

EC-25985, SW Zurn Strainer West Wall Penetration and Sump Pump Discharge Piping Isolation Valve Installation

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

Procedures:

0-AOP-Seismic-1, Seismic Event, Rev. 2
3-AOP-FLOOD-1, Flooding, Rev. 5

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LIST OF ACRONYMS USED

ADV	Atmospheric Dump Valve
ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
CAP	Corrective Action Program
CCR	Central Control Room
CFR	Code of Federal Regulations
CR	condition report
CW	City Water
EDG	Emergency Diesel Generator
ER	Emergency Response
FP	Fire Protection
IP2	Indian Point Unit 2
IP3	Indian Point Unit 3
LOIT	Licensed Operator Initial Training
LORT	Licensed Operator Requalification Training
MFW	Main Feedwater
MOU	Memorandum of Understanding
NRC	Nuclear Regulatory Commission
PM	Preventive Maintenance
RCS	Reactor Coolant System
SAMG	Severe Accident Management Guidelines
SBO	Station Blackout
SFP	spent fuel pool
SOP	Station Operating Procedure
SQUG	Seismic Qualification Utility Group
SRO	Senior Reactor Operator
SSE	Safe Shutdown Earthquake
SW	Service Water
TI	Temporary Instruction
TSC	Technical Support Center
VC	Vapor Containment