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

May 13, 2011

Mr. Kevin Bronson
Site Vice President
Entergy Nuclear Northeast
James A. FitzPatrick Nuclear Power Plant
P. O. Box 110
Lycoming, NY 13093

SUBJECT: JAMES A. FITZPATRICK NUCLEAR POWER PLANT - NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT 05000333/2011008

Dear Mr. Bronson:

On April 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your James A. FitzPatrick Nuclear Power Plant (FitzPatrick), 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 29, 2011, with Mr. B. Sullivan and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of FitzPatrick 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 document 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.: 50-333
License No.: DPR-59

Enclosure: Inspection Report 05000333/2011008

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Sincerely,

/RA/

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REGION I

Docket No:	50-333
License No:	DPR-59
Report No:	05000333/2011008
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	James A. FitzPatrick Nuclear Power Plant
Location:	Scriba, New York
Dates:	April 18 through April 29, 2011
Inspectors:	E. Knutson, Senior Resident Inspector S. Rutenkroger, PhD, Resident Inspector
Approved by:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

IR 05000333/2011008; 04/18/2011 – 04/29/2011; James A. FitzPatrick Nuclear Power Plant; 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 two 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.	FitzPatrick personnel reviewed the B.5.b equipment inspection and testing preventive maintenance tasks to ensure that the tasks were up to date and the equipment was available and functional. In addition, they inventoried the equipment and materials staged to support the B.5.b strategies per the applicable procedures. FitzPatrick personnel also inventoried SAMG (at FitzPatrick, titled Severe Accident Operating Guidelines, or SAOGs) support equipment per surveillance procedure ST-99C, "Safe Shutdown Equipment Inventory and Panel Operability Verification." Portable equipment such as the site fire pumper truck and portable radios were tested to verify readiness. The B.5.b and SAMG procedures were verified current and staged in the appropriate locations.
	Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).
	The inspectors evaluated the adequacy of installed and portable equipment staged explicitly for implementation of the mitigation strategies. The types of equipment examined included: interior fire water pumps, supply piping, and hose stations; the site fire pumper truck and associated suction and discharge hoses, adapters, and tools; portable radios and communications devices; and equipment lockers and associated tools. The inspectors review included field verification and inventory checks of standby and staged equipment, and compatibility of the portable equipment with installed systems. In addition, the inspectors evaluated the staging/storage locations of B.5.b

		related equipment to ensure the survivability and availability of equipment. Documents reviewed are listed in the Attachment to this report.
		Discuss general results including corrective actions by licensee.
		The licensee did not identify any deficiencies of significance as part of their equipment checks. The licensee identified several minor issues which they entered into their correction action program. Based on the selected inspection samples, reviews, and walkdowns conducted, the inspector concluded that the required equipment was available and functional.
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		To validate the adequacy of procedures and strategies, FitzPatrick personnel performed walkdowns of B.5.b strategies contained in Technical Support Guideline (TSG)-12, "B.5.b Extreme Damage Scenario Mitigating Strategies," and in the SAMGs. In addition, operations department personnel performed validations of time critical operator actions for several activities, such as operation of the site fire pumper truck, control room emergency ventilation, and operation of the reactor core isolation cooling system without direct current power available.
		Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.

installed equipment during this verification. This review should be done for a reasonable sample of mitigating strategies/equipment.		The inspectors examined FitzPatrick's established guidelines and implementing procedures for the B.5.b mitigation strategies and SAMGs. The inspectors walked down selected mitigation strategies with a plant operator to assess: the adequacy and completeness of the procedures; familiarity of operators with the procedure objectives and specific guidance; staging and compatibility of equipment; and the practicality of the operator actions prescribed by the procedures, consistent with the postulated scenarios. Documents reviewed are listed in the Attachment to this report.
		Discuss general results including corrective actions by licensee.
		The licensee did not identify any deficiencies of significance as part of their check to verify that procedures were in-place and executable. The licensee identified several minor issues which they entered into their correction action program. Based on the selected inspection samples, and the results of the reviews and walkdowns as described above, the inspectors concluded that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) were in place and were executable.
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		FitzPatrick conducts initial and continuing B.5.b training, and verified that training was completed. Additionally, FitzPatrick personnel verified that all required operations personnel have received initial and continuing SAMG training. Both B.5.b and SAMG training is included in the continuing training plan. FitzPatrick personnel reviewed training records and documentation to ensure that the training was up to date and verified that there was a sufficient number trained on-site personnel to implement the severe accident mitigation guidelines.

Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).		Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.
		The inspectors examined the periodic refresher training provided to the Operation Department staff most likely to be tasked with the implementation of the B.5.b mitigation strategies. The inspectors' review consisted of examination of training presentations, training records, and interviews with station personnel. The documents reviewed are listed in the Attachment to this report.
		Discuss general results including corrective actions by licensee.
		The licensee did not identify any training deficiencies of significance. The licensee identified several minor issues which they entered into their correction action program. Based on the selected inspection samples and reviews conducted, the inspector 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.		FitzPatrick personnel verified that agreements with the municipal fire departments, local law enforcement, emergency management offices, and other commitments for support required to implement the strategies, were in place and active. Additionally, FitzPatrick personnel verified their listing of resources capable of providing support equipment to mitigate the consequences of large fire or explosion events, as specified by TSG-11, "Additional Resources for Extreme Damage Events," were correct and current.
		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 verified that the licensee had in place current letters of agreement (LOA) with off-site agencies to provide assistance in mitigation strategies. The inspectors verified that several organizations had equipment with adequate lifting capability to elevate a monitor or spray nozzle to allow spraying into the spent fuel pool. The documents reviewed are listed in the Attachment to this report.
		Discuss general results including corrective actions by licensee.
		The licensee did not identify any deficiencies of significance. The licensee identified several minor issues which they entered into their correction action program. Based on the selected inspection samples and reviews conducted, the inspector concluded that applicable agreements and contracts were in place and were capable of meeting the conditions needed to mitigate the consequences of these 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.		The inspector reviewed numerous corrective action documents during this inspection, which are listed in the Attachment to this report. In addition, NRC Resident Inspectors conduct daily reviews of newly issued condition reports. The inspector reviewed all condition reports identified by the licensee during their recent self assessments of B.5.b mitigating strategies. The inspector evaluated the licensee's immediate corrective actions for the associated condition reports, and concluded that the actions appeared to be reasonable. The inspectors determined that the identified issues would not impact successful implementation of a 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.		The licensee performed walkdowns and visually inspected the equipment required to complete steps in AOP-49, "Station Blackout," AOP-49A, "Station Blackout in Cold Condition," and TSG-8, "Extending Site Black-out Coping Time, Starting an EDG/Injecting to Vessel with No DC Power Available." The licensee verified the referenced equipment was staged, available, and appeared to be in good working order.
		Describe inspector actions to verify equipment is available and useable.
		The inspectors assessed the licensee's capability to mitigate SBO conditions by conducting a review of the licensee's walkdown activities. In addition, the inspectors selected a sample of equipment utilized for mitigation of an SBO and conducted independent walkdowns of that equipment to verify the equipment was properly aligned and staged. The sample of equipment selected by the inspectors included, but was not limited to, portable radios, tools used for lifting leads, portable lighting, vital area keys, tools for manual breaker operation, the portable diesel generator and auto-transformer, and an emergency field flash jumper cable. The documents reviewed are listed in the Attachment to this report.
		Discuss general results including corrective actions by licensee.
		The licensee verified that SBO equipment was ready to respond to an SBO event. The licensee identified several minor issues which they entered into their correction action program. Based on the selected inspection samples, and the results of the reviews and walkdowns as described above, the inspector concluded that the required equipment was available and functional.

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.	The licensee performed a simulated SBO scenario using the simulator, supported by a walkthrough of activities in the plant, using the appropriate SBO procedures. The licensee validated that the required timelines were met, procedure steps were executable, and operators executed steps as expected.
	Describe inspector actions to assess whether procedures were in place and could be used as intended.
	The inspectors reviewed the licensee's documentation from the simulated SBO scenario and verified that the required timelines were met, procedure steps were executable, and operators executed steps as expected. The inspectors walked through implementation of AOP-49 with an operator, discussed the performance of each step, and verified that AOP-49 procedure steps were executable. The documents reviewed are listed in the Attachment to this report.
	Discuss general results including corrective actions by licensee.
	The required equipment for coping and restoring from an SBO consisted of permanently installed safety related equipment. The licensee and the inspectors did not identify any significant deficiencies with the equipment, and determined the SBO procedures were in place and executable. The licensee identified an apparent beyond design and licensing basis vulnerability, in that current procedures do not address hydrogen considerations during primary containment venting. This issue was documented in CR-JAF-2011-01529. As an immediate corrective action, the licensee revised TSG-9 to provide a caution for operators to consider the presence of hydrogen. The inspectors identified a beyond design and licensing bases vulnerability, in that FitzPatrick's current licensing basis did not require the plant to have a primary containment torus air space hardened vent system as part of their Mark I containment improvement program. The current

		licensed configuration is a hard pipe from primary containment to the suction of the standby gas treatment system, which is located outside the reactor building in an adjacent building. The NRC has established an agency task force to conduct a near term evaluation of the need for agency actions, which includes containment venting, following the events in Japan. The licensee identified a vulnerability, in that AOP-49A contained contingency actions using the decay heat removal system in an attachment that directed operators to use normal operating procedures. The normal operating procedure for starting decay heat removal included unnecessary steps for a SBO situation and did not include workable provisions for starting decay heat removal with the system drained. The licensee initiated immediate corrective actions to revise the procedure and fabricate an adaptor to connect a 1.5 inch fire hose to a 1 inch pipe thread fitting in order to fill the decay heat removal system using fire water, if necessary. The licensee entered this issue into their corrective action program as CR-JAF-2011-01674. The inspector reviewed the licensee's immediate and proposed corrective actions, including their assessment and prioritization, and concluded they were reasonable. The inspectors identified several potential procedure enhancements which could improve operator response, and communicated these enhancements to the licensee.

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.		The licensee identified equipment and features required to mitigate internal flooding. The licensee then conducted walkdowns of this equipment to ensure it appeared adequate and verified design features matched conditions described in supporting calculations, including such features as bulkheads, water-tight bellows, fire doors, sump pump covers and gaskets, pump timers, penetration seals, floor drains, and relative elevations of equipment potentially affected by flooding.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
		The inspectors reviewed the Individual Plant Examination for External Events (IPEEE) and determined that FitzPatrick had been evaluated as not susceptible to an external flooding event. The inspectors reviewed data available from the National Geophysical Data Center and verified that historical information indicated a maximum recorded tsunami event, or run-up, on Lake Ontario of five feet (and on all the Great Lakes a maximum of nine feet on Lake Erie). The inspector also determined that the maximum probable water level of Lake Ontario was calculated to be 252.5 feet, and the ground level elevation at FitzPatrick was 279 feet. The inspectors reviewed the licensee's self assessment actions and performed independent walkdowns of various plant areas to ensure the licensee's identified list was comprehensive. The inspectors examined accessible features to ensure the physical conditions and measurements appeared adequate. The equipment inspected included bulkheads, floor drains, fire doors, door sills, dampers, penetration seals, room volumes, and equipment elevations. The inspectors verified that no material, tools, or equipment of a portable or staged manner appeared to be required in order to cope with internal flooding.
		Discuss general results including corrective actions by licensee.
		The inspectors determined that, in general, all required materials were adequate and properly staged, tested, and maintained to respond to an internal flood within the plant's design basis. While this effort did not identify any operability or significant concerns, the licensee found issues with design information for internal flooding in the control room chiller room and the inspector

		questioned design assumptions for internal flooding in the EDG switchgear rooms. The licensee initiated condition reports to assess and resolve licensee and inspector identified issues, as listed in the Attachment to this report. The inspectors reviewed the associated condition reports, and determined the licensee's initial responses, including their assessment and prioritization, were appropriate. Since the maximum design basis external flood water level was at least ten feet below the ground level elevation of the facility, the inspectors concluded that the plant did not appear to have any external flood vulnerabilities. The inspectors concluded that the licensee meets the current design and licensing basis for flood protection.

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.		The licensee tabulated a list of equipment available to mitigate fire and flood events and identified whether the equipment was seismically classified. For equipment not classified as seismic, but appearing more rugged in design, the licensee used engineering judgment to determine whether or not the equipment was likely to survive a seismic event. The licensee described an overall mitigating strategy for fires as relying upon either the fire engine pumper truck or a seismically designed portion of the fire protection system, consisting of the west diesel fire pump and a portion of the fire water header inner loop. No mitigating measures were identified or needed to address a postulated external flood event. AOP-51, "Unexpected Fire Pump Start," Revision 5 provided guidance for dealing with internal flooding due to a fire main leak or rupture, such as from seismically induced fire main pipe breaks.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
		The inspectors walked down all fire protection features and equipment designated for mitigating strategies in the event installed fire protection systems do not survive a seismic event. This designated equipment included the west diesel fire pump, a portion of the fire water header inner loop, fire hose stations supplied from the portion of inner loop, the fire engine pumper truck and accessories, wheeled carbon dioxide extinguishers, fire fighting foam trailer, and other portable extinguishing equipment. The inspectors also walked down and examined internal flood event vulnerabilities and design features that would mitigate the consequences of internal flooding and reviewed AOP-51.
		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 licensee did not identify any deficiencies of significance. The licensee identified several minor issues or beyond licensing basis vulnerabilities which they entered into their corrective action

		program. The inspectors reviewed the associated condition reports, and determined the licensee's initial responses, including their assessment and prioritization, were appropriate. The licensee did not identify any new or additional mitigating strategies beyond those identified above. The inspectors observed that significant areas of the plant would have reduced fire fighting capability following a design basis seismic event since the majority of the fire water system is not seismically qualified, nor likely to survive such an event. In addition, internal flooding caused by ruptures following a design basis seismic event would require operators to walkdown areas, identify the source(s), and take prompt actions to secure the source(s) of flooding. Postulating a design basis seismic event followed by significant fire(s) and/or internal flooding, the limited number of on-shift personnel would be challenged to complete the needed mitigation actions. In particular, the fire brigade consists of on-shift operations personnel and is capable of dealing with a single fire only while maintaining minimum control room staffing. The inspectors identified a minor deficiency in the fire protection program. The licensee had not implemented vendor recommended periodic fire fighting foam concentrate testing for on-site portable fire fighting foam tanks. The licensee entered this issue into their corrective action program as CR-JAF-2011-02336, and initiated a preventive maintenance task request to implement an annual foam sample test and ensure the tanks remain filled. The inspectors identified several additional beyond design and licensing basis vulnerabilities and communicated those issues to the licensee.

Meetings

4OA6 Exit Meeting

The inspectors presented the inspection results to Mr. B. Sullivan and other members of licensee management at the conclusion of the inspection on April 29, 2011. Propriety 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

B. Sullivan, General Manager, Plant Operations
B. Finn, Director Nuclear Safety Assurance
C. Adner, Manager Operations
J. Barnes, Manager, Training and Development
M. Reno, Manager Maintenance
P. Cullinan, Manager, Emergency Preparedness
J. Pechacek, Licensing Manager
E. Dorman, Senior Licensing Engineer
R. Sullivan, Assistant Manager, Plant Operations
D. Poulin, Manager, System Engineering
F. Lukaczyk, Assistant Manager, Plant Operations
D. Ruddy, Supervisor, Engineering
A. Barton, Senior Engineer
D. Stokes, Senior Engineer
D. Koelbel, Senior Engineer
D. Burch, Senior Staff Engineer

Nuclear Regulatory Commission

C. Cahill, Senior Reactor Analyst
W. Cook, Senior Reactor Analyst
W. Schmidt, Senior Reactor Analyst

Other

G. Tarbell, Fire Protection Specialist, Bureau of Fire Protection
P. Eddy, Utility Supervisor, New York State Department of Public Service

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:

AOP-13, High Winds, Hurricanes, and Tornadoes, Rev. 19
EAP-13, Damage Control, Rev. 19
EP-10, Fire Water Crosstie to RHRSW Loop 'A' When Directed by EOP-4 or SAOGs, Rev. 1
EP-11, Alternate Depressurization Using SRVs from 02ADS-71, Rev. 1
EP-12, Isolating RBCLC Supply to the Drywell, Rev. 0
EP-13, RPV Venting, Rev. 2
EP-14, Alternate Containment Sprays, Rev. 3
EP-2, Isolation/Interlock Overrides, Rev. 7
EP-3, Backup Control Rod Insertion, Rev. 8
EP-4, Boron Injection Using CRD System, 2
EP-6, Post Accident Containment Venting and Gas Control, Rev. 9
EP-7, Primary Containment Flooding, Rev. 5
EP-9, Opening MSIVs, Rev. 3
SAOG-1a, RPV and PC Flooding, RPV Breach, Rev. 3
SAOG-1b, RPV and PC Flooding, RPV Level above TAF, Rev. 2
SAOG-1c, RPV and PC Flooding, RPV Level above BAF, Rev. 2
SAOG-1d, RPV and PC Flooding, RPV Injection above MRDIR, Rev. 2
SAOG-1e, RPV and PC Flooding, Parameters within PSP, Rev. 2
SAOG-1f, RPV and PC Flooding, Parameters outside PSP, Rev. 2
SAOG-2, RPV, Containment, and Radioactivity Release Control, Rev. 3
SAP-3, Emergency Communications Testing, Rev. 80
ST-76E, Quarterly Fire Hose Station Inspections, Rev. 16
ST-99C, Safe Shutdown Equipment Inventory and Panel Operability Verification, Rev. 31
TSG-11, Additional Resources for Extreme Damage Events, Rev. 2
TSG-12, B.5.b Extreme Damage Scenario Mitigating Strategies, Rev. 3
TSG-8, Extending Site Blackout Coping Time, Starting an EDG/ Injecting to Vessel with no DC Power Available, Rev. 3
TSG-9, Primary Containment Venting without AC Power, Rev. 3

Condition Reports:

CR-JAF-2011-01443, Fukushima Daiichi Nuclear Station Fuel Damage Event, Rev. 0
CR-JAF-2011-01528, Improve Staging for Interlock Override Keys, Rev. 0
CR-JAF-2011-01529, TSG-9 does not Address Hydrogen Considerations during Primary Containment Venting, Rev. 0
CR-JAF-2011-01531, TSGs are not Listed in the Operations Task List or Operations Qualification Documents, Rev. 0
CR-JAF-2011-01532, No Operations Training for Portions of EP-6 and EP-3, Rev. 0
CR-JAF-2011-01955, Minor Discrepancies with Labeling and Equipment Access Noted during EOP and SAOG Walkdowns, Rev. 0

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

Procedures:

AOP-49, Station Blackout, Rev. 17
AOP-49A, Station Blackout in Cold Condition, Rev. 7
FE-14A, Wiring Diagram Emergency Diesel Generator 93EDG-A System 93, Rev. 18
OP-30, Fuel Pool Cooling and Clean-Up System, Rev. 38
OP-30A, Refueling Water Level Control, Rev. 14
OP-4, Circulating Water System, Rev. 68
ST-28, Portable Diesel Generator Operability Test, Rev. 7
ST-99C, Safe Shutdown Equipment Inventory and Panel Operability Verification, Rev. 31
TSG-8, Extending Site Blackout Coping Time, Starting and EDG/Injecting to Vessel with no DC Power Available, Rev. 3

Calculations/Evaluations:

JAF-CALC-ELEC-02609, 125V DC Station Battery 'A' Sizing and Voltage Drop, 2

Condition Reports:

CR-JAF-2011-01528, Emergency Keys for EP and AOP Actions should be More Accessible and Should be Inventoried as Part of Surveillances , Rev. 0
CR-JAF-2011-01660, Handheld Lanterns Listed as Located in a Fire Brigade Locker Which does not Exist at that Location, Rev. 0
CR-JAF-2011-01674, AOP-49A and AOP-49B Refer to Using Decay Heat Removal Utilizing Normal Operating Procedures which are not Optimum, Rev. 0
CR-JAF-2011-01680, No Preventive Maintenance Program could be Found for the Auto-transformer, Rev. 0

Other:

File No. 11825-1.12-23A, Data Sheet – Emergency Generator, 12/10/70
File No. 1.12-41, Schematic Diagram Static Exciter and Voltage Regulator Emergency Diesel Generator, Rev. 7
Simulator Scenario 70275-1-LOI, AOP-49, Station Blackout, 3/18/11
WO 52282143, Portable Diesel Generator Operability Test, 3/15/11
WO 52301195, Perform Freshening Charge and Voltage Checks, 3/18/11

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

Procedures:

ESP-50.001, Floor Drain Flow Test, Rev. 1

Calculations/Evaluations:

SWEC Calculation 14620.9015-US(N)-001-0, Evaluation of Impact of Flooding Inside Emergency Diesel Generator Rooms on Safety-Related Equipment, Rev. 0
SWEC Calculation 14620-B-9017-1, Potential Flooding Impact for EDG Room Sprinkler Actuation with Floor Drains Plugged and Two Equipment Drains Opened and all Floor Drains Opened, Rev. 2

Condition Reports:

CR-JAF-2011-01762, Flooding Calculation for the Control Room Chiller Room Contains Discrepancies with Respect to Actual Room Conditions, Rev. 0

Other:

DBD-076 Tab 1, Design Basis Document for Fire Protection 076, System Water Supply and Distribution System, Rev. 4

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:

AOP-14, Earthquake, Rev. 13
AOP-28, Operation During Plant Fires, Rev. 18
AOP-49, Station Blackout, Rev. 17
AOP-49A, Station Blackout in Cold Condition, Rev. 7
ESP-50.001, Floor Drain Flow Test, Rev. 1
FPP-1.13, Fire Brigade Equipment Inventory, Rev. 0
FPP-3.49, Fire Protection Equipment Inspection, Rev. 0
FPP-3.50, Fire Engine Inspection, Rev. 0
OP-30, Fuel Pool Cooling and Clean-Up System, Rev. 38
OP-30A, Refueling Water Level Control, Rev. 14
OP-4, Circulating Water System, Rev. 68
ST-28, Portable Diesel Generator Operability Test, Rev. 7
ST-99C, Safe Shutdown Equipment Inventory and Panel Operability Verification, Rev. 31
TSG-8, Extending Site Blackout Coping Time, Starting and EDG/Injecting to Vessel with no DC Power Available, Rev. 3

Condition Reports:

CR-JAF-2011-01443, Fukushima Daiichi Nuclear Station Fuel Damage Event, Rev. 0
CR-JAF-2011-02336, Portable Foam Tanks Lack Vendor Recommended PM, Rev. 0
LO-WTJAF-2011-0112, Tracking of Potential Enhancements Identified during the Response to Recommendation 4, Rev. 0

Other:

DBD-076 Tab 1, Design Basis Document for Fire Protection 076 System Water Supply and Distribution System, 4

LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Documents Access and Management System
CA	Corrective Action
CFR	Code of Federal Regulations
CR	Condition Report
EDG	Emergency Diesel Generator
EOP	Emergency Operating Procedure
IP	Inspection Procedure
IPEEE	Individual Plant Examination of External Events
LOA	Letter of Agreement
NRC	Nuclear Regulatory Commission
PAR	Publically Available Record
SAMG	Severe Accident Mitigation Guideline
SAOG	Severe Accident Operating Guideline
SBO	Station Blackout
SFP	Spent Fuel Pool
SRV	Safety/Relief Valve
TI	Temporary Instruction
TSG	Technical Support Guideline