



**Entergy Nuclear Northeast
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Brian R. Sullivan
Site Vice President – JAF

JAFP-15-0026
February 27, 2015

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Fourth Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (Order Number EA-12-049)

James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
License No. DPR-059

- Reference:**
1. NRC Order Number, EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012
 2. NRC Interim Staff Guidance, JLD-ISG-2012-01, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, Revision 0, dated August 29, 2012
 3. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, Revision 0, dated August 2012
 4. Entergy to NRC, JAFP-12-0124, Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated October 29, 2012
 5. Entergy to NRC, JAFP-13-0025, Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 28, 2013

Dear Sir or Madam:

On March 12, 2012, the Nuclear Regulatory Commission (“NRC” or “Commission”) issued an order [Reference 1] to James A. FitzPatrick Nuclear Power Plant (JAF). Reference 1 was immediately effective and directed JAF to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Specific requirements are outlined in Attachment 2 of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance [Reference 2] and an overall integrated plan pursuant to Section IV, Condition C.2. Reference 2 endorsed industry guidance document NEI 12-06, Revision 0 [Reference 3] with clarifications and exceptions identified in Reference 2. Reference 4 provided the JAF initial status report regarding mitigation strategies. Reference 5 provided the JAF overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the fourth six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attached report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact Chris M. Adner, Regulatory Assurance Manager, at 315-349-6766.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 27th day of February, 2015.

Sincerely,



Brian R. Sullivan
Site Vice President

BRS/CMA/mh

Attachment: James A. FitzPatrick Nuclear Power Plant's (JAF) Fourth Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

cc: Director, Office of Nuclear Reactor Regulation
NRC Regional Administrator
NRC Resident Inspector
Ms. Jessica A. Kratchman, NRR/JLD/PMB, NRC
Mr. Doug Pickett, Senior Project Manager
Ms. Bridget Frymire, NYSPSC
Mr. John B. Rhodes, President NYSERDA

JAFP-15-0026

Attachment

James A. FitzPatrick Nuclear Power Plant's (JAF) Fourth Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

(14 Pages)

James A. FitzPatrick Nuclear Power Plant’s (JAF) Fourth Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

1. Introduction

JAF developed an Overall Integrated Plan (Reference 1 in Section 8), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the last status report (Reference 6), including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2. Milestone Accomplishments

The following milestone(s) have been completed since July 31, 2014, and are current as of January 31, 2015.

- Third Six-Month Status Report –August 2014 (JAFP-14-0105)
- Refine Strategy – October 2014

3. Milestone Schedule Status

The following provides an update to Attachment 2 of the Overall Integrated Plan. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

Milestone	Target Completion Date*	Activity Status	Revised Target Completion Date
60-day Status Update	October 29, 2012	Complete	
Submit Overall Integrated Plan	February 28, 2013	Complete	
Six-Month Status Report	August 2013	Complete	
Refine Strategies	December 2014	Complete	
Perform Staffing Analysis	June 2015	In progress	
Develop Strategies / Contract with RRC	May 2015	Started	
Six-Month Status Report	February 2014	Complete	
Develop Mods	June 2015	Started	
Draft Implementing Procedures	June 2016	Not Started	
Regional Response Center Operational	July 2015	Complete	
Develop Storage Plan	June 2015	Started	
Purchase FLEX Equipment	Fall 2016	Not Started	
Issue Maintenance Procedures (for FLEX equipment)	Fall 2016	Not Started	

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Milestone	Target Completion Date*	Activity Status	Revised Target Completion Date
Six-Month Status Report	August 2014	Complete	
Develop Training Plan	November 2015	Not Started	
Refueling Outage 1	Fall 2014	Complete	
Six-Month Status Report	February 2015	Complete	
Implement Training	March 2016	Not Started	
Implement Mods (non-outage)	June 2015	Not Started	
Six-Month Status Report	August 2015	Not Started	
Six-Month Status Report	February 2016	Not Started	
Issue Implementing Procedures	May 2016	Not Started	
Six-Month Status Report	August 2016	Not Started	
Implement Mods (outage)	Fall 2016	Not Started	
Implement Training Updates	Fall 2016	Not Started	
Refueling Outage 2 (full implementation)	Fall 2016	Not Started	
Validation / Demonstration	Fall 2016	Not Started	

*Target Completion Date is the last submitted date from either the overall integrated plan or a previous six-month status report.

4. Changes to Compliance Method

Changes to the compliance method as documented in the Overall Integrated Plan (OIP) (Reference 1 and 3) are being considered during the preliminary design phase of the project. The changes currently being considered are summarized below.

- Page 5 of the OIP states that at 5 hours manual control of the safety relief valves (SRVs) will take place to depressurize the reactor pressure vessel (RPV) to approximately 200-400 psig. For the proposed revised strategy this action is required at approximately 1 hour, per Modular Accident Analysis Program (MAAP) analysis, to stay within the safe region of the heat capacity temperature limit (HCTL) curve as long as possible.
- Pages 12, 13, 17, 24 and 48 of the OIP indicate that the Reactor Core Isolation Cooling (RCIC) suction will be swapped from the Condensate Storage Tank (CST) to the torus/suppression pool. For the proposed revised strategy the RCIC suction will not be swapped to the torus/suppression pool. The RCIC suction will remain from the CST until it is depleted. Prior to the depletion of the CST, a flow path will be established from one of the installed diesel driven fire pumps to provide make up to the reactor pressure vessel.

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- Pages 17, 19 and 33 of the OIP state the portable pump provide injection to RPV and spent fuel pool (SFP). For the proposed revised alternate strategy a portable pump is no longer utilized. The proposed revised alternate strategy relies on using a second diesel driven fire pump to provide injection to the RPV and makeup to the SFP via the RHRSW system. This strategy is considered an alternate method of compliance because it does not utilize a portable pump per the guidelines of Section 3.2.2(13) of Nuclear Energy Institute (NEI) 12-06. Evaluations are in progress to verify that the second diesel driven fire pump and all associated components are available following all applicable beyond design basis external events (BDBEEs).
- Pages 17 of the OIP states that a portable FLEX pump can also be used to make up to the CST. The replenishment of the CST is no longer part of the credited core cooling for the proposed revised strategy.
- Page 24 of the OIP states that based on the containment response analysis results, containment is vented at about 23 hours into the event. The current containment analysis utilized in the proposed revised strategy, determined that to minimize the extent to which containment design limits are challenged, containment is vented at about 5.5 hours into the event. The drywell and suppression chamber pressure are controlled by opening the Hardened Containment Vent System (HCVS) when the suppression chamber air space pressure reaches 10 psig.
- Pages 6 and 49 of the OIP state that transition core cooling makeup flow from RCIC pump to the installed diesel-driven fire pump 76P-1 takes place at approximately 34 hours (based on the inventory from the CST and the torus volume). The proposed revised strategy does not swap RCIC suction to the torus/suppression pool, therefore, based on the current MAAP analysis, the transition from RCIC pump to the diesel driven fire pump takes place at around 24 hours.
- Page 32 of the OIP states that the FLEX pump used to provide the SFP makeup function is the same FLEX pump used to provide core cooling. The proposed revised strategy does not utilize a portable FLEX pump, instead it uses one of the diesel driven fire pumps to provide makeup to the spent fuel pool.
- Page 17 of the OIP states that for the primary strategy, a modification will provide new connection points for a portable diesel generator unit to re-power the Battery Chargers 71BC-1A (or 71BC-1B), which charge the batteries and supply DC loads. The proposed revised primary strategy to repower Division A DC bus, which will provide power to required DC bus loads, will use the Temporary Station Battery Charger located in the Screenwell Building. This battery charger will be powered by a FLEX diesel generator (DG). A quick-connect type receptacle is provided at the temporary battery charger for connection from the 600 VAC FLEX DG.

5. Need for Relief/Relaxation and Basis for the Relief/Relaxation

JAF expects to comply with the order implementation date and no relief/relaxation is required at this time.

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6. Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following tables provide a summary and status of any open items documented in the Overall Integrated Plan and any open items or confirmatory items documented in the Interim Staff Evaluation (ISE) (Reference 4). A fourth table includes the status of each FitzPatrick Audit Question for the Mitigation Strategies (FLEX) Order.

FitzPatrick is currently in the preliminary design phase of the project. During the final design phase of the project, the status of the open items in this section will be updated to reflect the final strategies and supporting analysis; this is anticipated to be the fifth Six Month Status Report (August 2015).

Overall Integrated Plan Open Items	Status
OI-1: Beyond-design-basis external event impact on requirements in existing licensing documents will be determined based on input from the industry groups and direction from the NRC.	Entergy has determined that update to existing licensing basis documents are not required to reflect BDBEEs.
OI-2: The structure, content and details of the Regional Response Center playbook will be determined.	Started

Interim Staff Evaluation Open Items		Status
3.1.1.3.A	Procedural Interface (Seismic Hazard) - Evaluate the impacts from large internal flooding sources. (Audit Question 5)	In Progress. This item will be addressed by update to Audit Question (AQ) JAF-005 response when information is available.
3.1.3.1.A	Protection of FLEX Equipment (High Wind Hazard) - Evaluate the separation distance and the axis of separation considering the predominant path of tornados in the geographic area to demonstrate that at least N sets of FLEX equipment would remain deployable in the context of a tornado missile hazard. (Audit Question 1)	In Progress. This item will be addressed by update to AQ JAF-001 response when information is available.
3.1.4.2.B	Deployment of FLEX Equipment (Snow, Ice and Extreme Cold) - Evaluate the potential impact on the UHS due to ice blockage or formation of frazil ice as a result of extreme cold.	In Progress. This item will be addressed on the updated AQ response spreadsheet on the ePortal when information is available.

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Interim Staff Evaluation Open Items		Status
3.2.3.A	Containment- Verify that the implementation of Boiling Water Reactor Owners Group (BWROG) Emergency Procedure Guideline (EPG)/Severe Accident Guideline (SAG), Revision 3, including any associated plant-specific evaluations, has been completed in accordance with the provisions of NRC letter dated January 9, 2014 (Reference 23 of ISE - Letter from Jack R. Davis (NRC) to Joseph E. Pollock (NEI) dated January 9, 2014, regarding Boiling Water Reactor Containment Venting (ADAMS Accession No. ML 13358A206))	In Progress. This item will be addressed by update to AQ JAF-017 response when information is available.

Interim Staff Evaluation Confirmatory Items		Status
3.1.1.2.A	Deployment of FLEX Equipment- Confirm that soil liquefaction will not impede vehicle movement following a seismic event.	In Progress. This item will be addressed by update to AQ JAF-002 response when information is available.
3.1.1.2.B	Deployment of FLEX Equipment- Confirm final design features of the new storage building including the susceptibility to the loss of ac power to deploy equipment.	In Progress. This item will be addressed by update to AQ JAF-001 response when information is available.
3.1.1.2.C	Deployment of FLEX Equipment - Confirm the storage locations and means of protection against the seismic hazard of the super duty pickup trucks and the two flatbed trailers used for deployment of FLEX equipment.	In Progress. This item will be addressed by update to AQ JAF-001 response when information is available.
3.1.1.4.A	Offsite Resources- Confirm location of offsite staging area(s), access routes and methods of delivery of equipment to the site considering the seismic, flood, high wind, snow, ice and extreme cold hazards.	In Progress. This item will be addressed by update to AQ JAF-043 response when information is available.

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Interim Staff Evaluation Confirmatory Items		Status
3.1.3.2.A	Deployment of FLEX Equipment (High Wind Hazard) - Confirm availability of debris removal equipment to facilitate deployment of FLEX equipment.	In Progress. This item will be addressed on the updated AQ response spreadsheet on the ePortal when information is available.
3.1.3.2.B	Deployment of FLEX Equipment (High Wind Hazard) - Confirm protection of the means to move FLEX equipment.	In Progress. This item will be addressed by update to AQ JAF-001 response when information is available.
3.1.4.2.A	Deployment of FLEX Equipment (Snow, Ice and Extreme Cold) - Confirm availability of snow removal equipment to facilitate deployment of FLEX equipment.	In Progress. This item will be addressed by update to AQ JAF-001 response when information is available.
3.2.1.1.A	Computer Code Used for Extended Loss of AC Power (ELAP) Analysis - Benchmarks need to be identified and discussed which demonstrate that Modular Accident Analysis Program (MAAP) is an appropriate code for the simulation of an ELAP event at JAF.	In Progress. This item will be addressed by update to AQ JAF-009 response when information is available.
3.2.1.1.B	Computer Code Used for ELAP Analysis -Confirm that the collapsed level remains above Top of Active Fuel (TAF) and the cool down rate is within technical specifications limits.	In Progress. This item will be addressed by update to AQ JAF-012 response when information is available.
3.2.1.1.C	Computer Code Used for ELAP Analysis - Confirm that MAAP was used in accordance with Sections 4.1, 4.2, 4.3, 4.4, and 4.5 of the June 2013 position paper (ADAMS Accession No. ML 13190A201).	In Progress. This item will be addressed by update to AQ JAF-010 response when information is available.

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Interim Staff Evaluation Confirmatory Items		Status
3.2.1.1.D	Computer Code Used for ELAP Analysis - Confirm that the licensee, in using MAAP, identified and justified the subset of key modeling parameters cited from Tables 4-1 through 4-6 of the "MAAP Application Guidance, Desktop Reference for Using MAAP Software, Revision 2" (Electric Power Research Institute Report 1 020236).	In Progress. This item will be addressed by update to AQ JAF-011 response when information is available.
3.2.1.1.E	Computer Code Used for ELAP Analysis - Confirm that the specific MAAP analysis case that was used to validate the timing of mitigating strategies in the Integrated Plan has been identified and is available for NRC staff to review. Alternately, a comparable level of information has been included in the supplemental response. In either case, the analysis should include a plot of the collapsed vessel level to confirm that TAF is not reached (the elevation of the TAF should be provided) and a plot of the temperature cool down to confirm that the cool down is within technical specifications limits.	In Progress. This item will be addressed by update to AQ JAF-009 response when information is available.
3.2.1.2.A	Recirculation Pump Seal Leakage Models - Confirm the seal leakage model used in the updated MAAP analysis (which will address the MAAP code limitations when used for ELAP analysis). Evaluate the seal leakage rate model used, the details of the seal qualification tests and supporting test data, and leakage rate pressure-dependence.	In Progress. This item will be addressed by update to AQ JAF-014 response when information is available.
3.2.1.3.A	Sequence of Events (SOE) - Confirm the SOE timeline after reanalysis using the MAAP code which will address the limitations when used for the ELAP analysis.	In Progress. This item will be addressed by updated AQ JAF-012 response when information is available.
3.2.1.4.A	Systems and Components for Consequence Mitigation - Confirm sizing of the FLEX pumps and 600 Vac FLEX diesel generator (DG) and the 4160 Vac generator to be obtained from the RRC.	In Progress. This item will be addressed by update to AQ JAF-022 response when information is available.
3.2.1.5.A	Monitoring Instrumentation and Controls- Confirm ac powered torus temperature, pressure and level and drywell temperature and pressure instrumentation is modified to remain powered during an ELAP.	This item is addressed by updated AQ JAF-006 response.

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Interim Staff Evaluation Confirmatory Items		Status
3.2.1.8.A	Use of Portable Pumps - Confirm that the use of raw water from Lake Ontario for long term core and spent fuel pool cooling strategies is acceptable.	In Progress. This item will be addressed by update to AQ JAF-023 response when information is available.
3.2.2.A	Spent Fuel Pool Cooling - Confirm the method of ventilation and power requirements, if any, of the spent fuel pool area.	This item is addressed by updated AQ JAF-028 response.
3.2.4.2.A	Ventilation (Equipment Cooling) - Confirm that additional evaluations of the RCIC room temperature demonstrate that an acceptable environment is maintained during the transition phase both for equipment in the room and habitability for operators who may need to enter the room.	In Progress. This item will be addressed by update to AQ JAF-031 response when information is available.
3.2.4.2.B	Ventilation (Equipment Cooling) - Confirm that evaluations of the battery room temperature demonstrate that an acceptable environment, during both high ambient temperature and during extreme cold ambient temperature, is maintained during Phases 2 and 3.	In Progress. This item will be addressed by update to AQ JAF-069 response when information is available.
3.2.4.2.C	Ventilation (Equipment Cooling) - Confirm the required ventilation flow or the size of the portable fans to maintain acceptable environmental conditions in the DC equipment room.	In Progress. This item will be addressed by update to AQ JAF-061 response when information is available.
3.2.4.3.A	Heat Tracing - Confirm completion of walkdowns and evaluation of where heat tracing may be needed for freeze protection of equipment or instruments used in the ELAP mitigation strategies.	In Progress. This item will be addressed by update to AQ JAF-035 response when information is available.
3.2.4.4.A	Lighting - Confirm need for additional portable lighting, such as dc powered lights.	In Progress. This item will be addressed by update to AQ JAF-036 response when information is available.
3.2.4.4.B	Communications - Confirm that upgrades to the site's communication system have been completed.	NRC Confirmatory Action

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Interim Staff Evaluation Confirmatory Items		Status
3.2.4.8.A	Electrical Power Sources - Confirm the technical basis for the selection and size of the FLEX generators to be used in support of the coping strategies.	In Progress. This item will be addressed by update to AQ JAF-050 response when information is available.
3.2.4.10.A	Load Reduction to Conserve DC Power - Confirm final load shed list and the evaluation of any potential adverse effects of shedding those loads.	In Progress. This item will be addressed by update to AQ JAF-052 response when information is available.
3.2.4.10.B	Load Reduction to Conserve DC Power - Confirm the final dc load profile with the required loads and the finalized minimum battery voltage.	In Progress. This item will be addressed by update to AQ JAF-066 response when information is available.
3.2.4.10.C	Load Reduction to Conserve DC Power- Confirm time after the ELAP for connecting the FLEX DG to the battery chargers.	In Progress. This item will be addressed by update to AQ JAF-052 response when information is available.
3.4.A	Off-site Resources- Confirm that NEI 12-06, Section 12.2 guidelines 2 through 10 are addressed, or that an appropriate alternative is justified.	In Progress. This item will be addressed by update to AQ JAF-043 response when information is available.

James A. FitzPatrick Nuclear Power Plant's (JAF) Fourth Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

Audit Questions	Status	Completion or Target Date
JAF-001	In progress - This AQ response will be updated when information is available (associated with ISE Open Item 3.1.3.1.A and ISE Confirmatory Items 3.1.1.2.B, 3.1.1.2.C, 3.1.3.2.B, 3.1.4.2.A)	August 2015
JAF-002	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.1.1.2.A)	August 2015
JAF-003	In progress - This AQ response will be updated when information is available	August 2015
JAF-004	In progress - This AQ response will be updated when information is available	August 2015
JAF-005	In progress - This AQ response will be updated when information is available (associated with ISE Open Item 3.1.1.3.A)	August 2015
JAF-006	Updated response available on the ePortal (associated with ISE Confirmatory Item 3.2.1.5.A)	Closed
JAF-008	In progress - This AQ response will be updated when information is available	August 2015
JAF-009	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Items 3.2.1.1.A, 3.2.1.1.E)	August 2015
JAF-010	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.1.1.C)	August 2015
JAF-011	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.1.1.D)	August 2015
JAF-012	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Items 3.2.1.1.B, 3.2.1.3.A)	August 2015
JAF-013	In progress - This AQ response will be updated when information is available	August 2015
JAF-014	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.1.2.A)	August 2015
JAF-015	Response available on the ePortal	Closed
JAF-016	Response available on the ePortal	Closed

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Audit Questions	Status	Completion or Target Date
JAF-017	In progress - This AQ response will be updated when information is available (associated with ISE Open Item 3.2.3.A)	August 2015
JAF-018	Response available on the ePortal	Closed
JAF-019	In progress - This AQ response will be updated when information is available	August 2015
JAF-021	Response available on the ePortal	Closed
JAF-022	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Items 3.2.1.4.A)	August 2015
JAF-023	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.1.8.A)	August 2015
JAF-026	Response available on the ePortal	Closed
JAF-027	In progress - This AQ response will be updated when information is available	August 2015
JAF-028	Updated response available on the ePortal (associated with ISE Confirmatory Item 3.2.2.A)	Closed
JAF-029	Response available on the ePortal	Closed
JAF-031	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.2.A)	August 2015
JAF-032	Response available on the ePortal	Closed
JAF-033	In progress - This AQ response will be updated when information is available	August 2015
JAF-034	Response available on the ePortal	Closed
JAF-035	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.3.A)	August 2015
JAF-036	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.4.A)	August 2015
JAF-037	Response available on the ePortal	Closed
JAF-038	Response available on the ePortal	Closed

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Audit Questions	Status	Completion or Target Date
JAF-040	In progress - This AQ response will be updated when information is available	August 2015
JAF-043	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Items 3.1.1.4.A, 3.4.A)	August 2015
JAF-046	Response available on the ePortal	Closed
JAF-049	Response available on the ePortal	Closed
JAF-050	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.8.A)	August 2015
JAF-052	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Items 3.2.4.10.A, 3.2.4.10.C)	August 2015
JAF-053	Response available on the ePortal	Closed
JAF-055	Response available on the ePortal	Closed
JAF-056	In progress - This AQ response will be updated when information is available	August 2015
JAF-057	Response available on the ePortal	Closed
JAF-058	Response available on the ePortal	Closed
JAF-059	Response available on the ePortal	Closed
JAF-060	In progress - This AQ response will be updated when information is available	August 2015
JAF-061	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.2.C)	August 2015
JAF-062	In progress - This AQ response will be updated when information is available	August 2015
JAF-063	Response available on the ePortal	Closed
JAF-064	In progress - This AQ response will be updated when information is available	August 2015
JAF-065	In progress - This AQ response will be updated when information is available	August 2015
JAF-066	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.10.B)	August 2015

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Audit Questions	Status	Completion or Target Date
JAF-068	Response available on the ePortal	Closed
JAF-069	In progress - This AQ response will be updated when information is available (associated with ISE Confirmatory Item 3.2.4.2.B)	August 2015
JAF-071	Response available on the ePortal	Closed
JAF-072	Response available on the ePortal	Closed
JAF-073	Response available on the ePortal	Closed

*Closed indicates that Entergy’s response is complete.

7. Potential Interim Staff Evaluation Impacts

As discussed in Section 4, changes to the compliance method as documented in the Overall Integrated Plan (Reference 1 and 3) are being considered during the preliminary design phase of the project. In addition to the compliance method items identified in Section 4, the items discussed below have potential impact on the Interim Staff Evaluation if adopted in the final design.

- ISE/TER Section 3.2.1.8, Page 34, the TER states, “...the existing installed RCIC pump will draw water from either the suppression pool or the CST, and inject water into the reactor pressure vessel.” For the proposed revised strategy, the RCIC pump will draw water from the CST and its suction will not swap to the suppression pool.
- ISE/TER Section 3.2.1.8, Page 34, the TER states, “...in Phase 2, the licensee stated that a portable FLEX pump can be used to draw water from the intake bay and pump it through a temporary hose connected to the RHRSW system.” The Phase 2 proposed revised strategy does not utilize a portable pump to provide core cooling. The proposed revised strategy utilizes one of the diesel driven fire pumps to provide injection to the RPV with suction from the intake bay.
- ISE/TER Section 3.2.1.8, Page 34, the TER states, “This portable pump can also be used to provide makeup water to the CST.” For the proposed revised strategy, replenishment of the CST is no longer part of the credited FLEX strategy.
- ISE/TER, Section 3.2.4.7, Page 47, the TER states, “The licensee stated that during an ELAP, at approximately 1 hour event time, operators will manually transfer RCIC suction to the SP. The RCIC suction path will remain aligned to the SP until the SP temperature reaches about 170 degrees Fahrenheit. This is expected to occur at approximately 5.5 hours event time. Operators will then shift the RCIC suction path back to the CSTs. The licensee stated that the combined water volumes of the SP and the CSTs are expected to provide core cooling for approximately 35 hours without refilling the CSTs.” The proposed revised strategy does not swap suction from the CST to the suppression pool. Based on this proposed revised strategy, the CST inventory is expected to provide core cooling for approximately 24 hours. At this time core cooling will be provided by water supplied from one of the diesel driven fire pumps with suction from the intake bay.

James A. FitzPatrick Nuclear Power Plant's (JAF) Fourth Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

8. References

The following references support the updates to the Overall Integrated Plan described in this attachment.

1. Entergy to NRC, JAFP-13-0025, Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 28, 2013.
2. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.
3. Entergy to NRC, JAFP-13-0112, First Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (Order Number EA-12-049), dated August 28, 2013.
4. NRC letter, James A. FitzPatrick Nuclear Power Plant – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC No. MF1077), dated February 21, 2014
5. Entergy to NRC, JAFP-14-0023, Second Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (Order Number EA-12-049), dated February 28, 2014
6. Entergy to NRC, JAFP-14-0105, Third Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (Order Number EA-12-049), dated August 28, 2014