Entergy Operations, Inc.
17265 River Road
Killona, LA 70057-3093
Tel 504 739 6660
Fax 504 739 6678
mchisum@entergy.com

Michael R. Chisum
Site Vice President
Waterford 3

W3F1-2015-0067

August 27, 2015

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

SUBJECT: Fifth Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events Waterford Steam Electric Station, Unit 3 (Waterford 3)
Docket No. 50-382
License No. NPF-38

References:

1. NRC Order Number EA-12-049, "Order to Modify Licenses With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012 (ADAMS Accession No. ML12054A736)

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 (ADAMS Accession No. ML12229A174)

3. Nuclear Energy Institute (NEI) 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012 (ADAMS Accession No. ML12221A205)

4. Entergy letter to NRC, "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 26, 2012 (W3F1-2012-0093) (ADAMS Accession No. ML12300A447)

5. Waterford Steam Electric Station, Unit 3 letter to NRC, "Overall Integrated Plan in Response to March 12, 2012, Commission Order to Modify Licenses With Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated February 28, 2013 (ADAMS Accession No. ML13063A266)

6 Waterford Steam Electric Station, Unit 3 letter to NRC, "First Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" dated August 28, 2013 (ADAMS Accession No. ML13241A281)

7 Waterford Steam Electric Station, Unit 3 letter to NRC, "Second Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" dated February 28, 2014 (ADAMS Accession No. ML14059A085)

8 Waterford Steam Electric Station, Unit 3 letter to NRC, "Third Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" dated August 28, 2014 (ADAMS Accession No. ML14241A270)

9 Waterford Steam Electric Station, Unit 3 letter to NRC, "Fourth Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" dated February 26, 2015 (ADAMS Accession No.ML15057A548)

Dear Sir or Madam:

On March 12, 2012, the NRC issued Order Number EA-12-049 (Reference 1) to Entergy Operations, Inc. (Entergy). The order was immediately effective and required Waterford Steam Electric Station, Unit 3 (Waterford 3) to develop mitigating strategy provisions for beyond-design-basis external events.

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 (OIP). Reference 2 endorses industry guidance document NEI 12-06, Revision 1 (Reference 3). Reference 4 provided the initial status report regarding mitigating strategies and Reference 5 provided the OIP.

NRC Order EA-12-049 requires submission of a status report at six-month intervals following submittal of the Overall Integrated Plan with regard to the requirements for mitigation strategies for beyond-design-basis external events for Waterford 3. References 6, 7, 8 and 9 provided the first, second, third and fourth six-month status reports for Waterford 3 respectively. The purpose of this letter is to provide, as an attachment, the fifth six month status report for the implementation of Order EA-12-049.

There are no new commitments identified in this submittal. Should you have any questions concerning the content of this letter, please contact John Jarrell, Regulatory Assurance Manager, at (504) 739-6685.

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

Sincerely,

MRC/AJH

Attachment: Waterford Steam Electric Station, Unit 3, Fifth Six Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to the Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

cc: Attn: Director, Office of Nuclear Reactor Regulation
U. S. NRC
RidsNrrMailCenter@nrc.gov

Mr. Mark L. Dapas, Regional Administrator
U. S. NRC, Region IV
RidsRgn4MailCenter@nrc.gov

NRC Project Manager for Waterford 3
Michael.Orenak@nrc.gov

NRC Senior Resident Inspector for Waterford 3
Frances.Ramirez@nrc.gov
Chris.Speer@nrc.gov

Attachment

W3F1-2015-0067

Waterford Steam Electric Station, Unit 3,
Fifth Six Month Status Report for the Implementation of Order EA-12-049,
Order Modifying Licenses with Regard to the Requirements for
Mitigation Strategies for Beyond-Design-Basis External Events

**Waterford Steam Electric Station, Unit 3,
Fifth Six Month Status Report for the Implementation of Order EA-12-049,
Order Modifying Licenses with Regard to the Requirements for
Mitigation Strategies for Beyond-Design-Basis External Events**

1 Introduction

Waterford Steam Electric Station, Unit 3 (Waterford 3), developed an Overall Integrated Plan (Reference 1) documenting the diverse and flexible strategies (FLEX) in response to NRC Order EA-12-049 (Reference 2). This attachment provides a planned update of milestone accomplishments since submittal of the last status report (Reference 7), 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 January 31, 2015, and are current as of July 31, 2015.

- Fourth Six-Month Status Report – February 2015
- Fifth Six-Month Status Report — Complete with submission of this document in August 2015
- Staffing Analysis – June 2015

3 Milestone Schedule Status

The following provides an update to the milestone schedule to support the OIP. This section 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
Submit Overall Integrated Plan	Feb 2013	Complete	N/A
Submit Six Month Updates:			
Update 1	Aug 2013	Complete	N/A
Update 2	Feb 2014	Complete	N/A
Update 3	Aug 2014	Complete	N/A
Update 4	Feb 2015	Complete	N/A
Update 5	Aug 2015	Complete	N/A
Perform Staffing Analysis	June 2015	Complete	N/A
Modifications:			

Milestone	Target Completion Date **	Activity Status	Revised Target Completion Date
Engineering and Implementation			
N-1 Walkdowns	May 2014	Complete	N/A
Design Engineering	March 2015	Complete	N/A
Implementation Outage	Nov 2015	Not Started	No Change
On-site FLEX Equipment			
Purchase	March 2015	Started	Oct 2015
Procure	Sept 2015	Started	Nov 2015
Off-site FLEX Equipment			
Develop Strategies with RRC	Sept 2015	Started	No Change
Install Off-Site Delivery Station (if Necessary)	Nov 2015	Complete	N/A
Procedures			
Create Waterford FSGs	Nov 2015	Started	No Change
Create Maintenance Procedures	Nov 2015	Started	No Change
Training			
Develop Training Plan	May 2015	Complete	No Change
Implement Training	Nov 2015	Started	No Change
Submit Completion Report	Feb 2016*	Not Started	No Change

* This date corresponds to the last six month status report and provides time to compile the report following the completion of the fall 2015 Implementation Outage.

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

4 Changes to Compliance Method

There are no changes to the compliance method as documented in the Overall Integrated Plan (OIP) (Reference 1) and in previous documents (References 3, 5, 6 and 7).

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

Waterford 3 expects to comply with the order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following table provides 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). A fourth table includes a listing of Audit Questions and the status of each item. A fifth table includes the FLEX-related NRC Audit Visit Open Items, which includes open items on previously issued Audit Questions that were not closed during the July 2015 NRC Audit Visit and their status.

Note that during the July 2015 NRC Audit Visit, the NRC utilized a spreadsheet entitled Waterford SE Item Tracker to maintain a status of Open Items associated with development of the NRC's Safety Evaluation. The SE Tracker numbered each item with an Audit Item No. based on the category of the Open Item. The categories were:

A. ISE Open and Confirmatory Items (Audit Item OI-xxxxx or CI-xxxxx)

B. Audit Questions (Audit Item AQ. X)

C. Licensee OIP Open Items (Audit Item OIP. X)

D. SFP Instrumentation RAIs (Audit Item SFP. X)

E. Combined SE Template Technical Review Gaps (Audit Item SE. X)

In the Status columns of the following tables, the phrase "This item was closed during [following] the July 2015 NRC Audit Visit" indicates that the item was closed during or following the NRC Audit and is considered closed

Overall Integrated Plan Open Item	Status
OI1. The suction path from the TDEFWP to the WCTs would be through a non-running ACCWS pump post-ELAP. It is expected that both the TDEFWP and the currently sized EFW FLEX pump (primary strategy) will have sufficient capability and/or NPSH to do so. However, this will need to be confirmed more fully as the detailed design of the primary strategy for maintaining core cooling and heat removal evolves (with SGs available).	This item was closed during the July 2015 NRC Audit Visit.
OI2. An analysis will be needed to demonstrate that containment pressure and temperature will stay at acceptable levels throughout the ELAP event and that no containment spray system will be required as part of FLEX.	This item was closed during the July 2015 NRC Audit Visit
OI3. At this stage of the conceptual design, the chemistry effects of alternate cooling source (ACS) use on secondary wetted components are unknown.	This item was closed during the July 2015 NRC Audit Visit.
OI4. It is currently unclear how long gravity feed from the SITs can be maintained during Modes 5 and 6 in Phase 1. The ability to gravity feed depends upon SIT fluid height/backpressure, line losses through the gravity flow path, and developed pressure within the RCS. If this time is sufficiently short, Waterford 3 may choose to pre-stage requisite FLEX equipment in Modes 5	This item was closed during the July 2015 NRC Audit Visit

Overall Integrated Plan Open Item	Status
and 6.	
OI5. It is expected that only the component cooling water system and dry cooling towers will need to be made operational to reject the heat load generated post-ELAP in Phase 3. However, this must be investigated more fully to confirm such. Notably, only 60% of the dry cooling tower fan motors are currently missile protected and none of the wet cooling tower (WCT) fan motors are missile protected. If more than 60% of dry cooling tower (DCT) capacity is needed to support Phase 3, DCT and/or WCT fan motors may need to be missile protected. Currently available information follows: The DCT one train heat removal in an accident would be 113.38 Mbtu/hr. Given that 60% of the DCT is missile protected, it's assumed that that 40% of the heat removal capability is lost. 38 hours after shutdown, decay heat is less than 68 Mbtu/hr (ANS 79 decay heat curve) and less than the heat removal capacity of the DCTs. As the event proceeds, the required heat removal will decrease. Until this point in the event, Phase 1 and 2 FLEX strategies will be capable of removing decay heat. Final system operating details for the CCW and DCT (i.e., number of pumps and fans to operate) still need to be determined.	This item was closed during the July 2015 NRC Audit Visit.

Interim Staff Evaluation Open Items		Status
3.1.3.A	Wind Hazard Screening - The licensee's response fails to consider the warning time offered by a hurricane storm for pre-staging FLEX equipment. In addition, as described in NEI 12-06, Section 7.2.2, hurricanes can have a significant impact on local infrastructure, e.g., downed trees and flooding that should be considered in the interface with off- site resources.	This item was closed during the July 2015 NRC Audit Visit.
3.2.1.1.B	CENTS - Justify conformance with the limitations of the use of CENTS by providing the CENTS-calculated value of the centered one-hour moving average of the flow quality at the top of the SG tubes, which corresponds to the maximum void fraction of 0.2 in SG tubes as conditions used to define termination of single phase natural circulation, and confirming that the value is less than the limit specified in the white paper dated September 24, 2013 for use in defining the onset of reflux being.	This item was closed during the July 2015 NRC Audit Visit.

Interim Staff Evaluation Open Items		Status
3.2.1.2.A	RCP Seal Leakage - Justification of less than 15 gpm per RCP seal leakage in analysis.	This item was closed during the July 2015 NRC Audit Visit. .
3.2.1.2.B	RCP generic seal question regarding: (1) the analysis used to determine the leakage rate, (2) cold leg subcooling, (3) leakage flow path characteristics after seal failure, (4) seal performance at high temperatures, (5) isolation of controlled bleed off lines, and (6) pressure dependent seal leakage rates.	This item was closed during the July 2015 NRC Audit Visit.
3.2.1.3.A	Decay Heat -Assumption 4 on page 4-13 of WCAP-17601 states that decay heat is per ANS [American Nuclear Society] 5.1-1979 + 2 sigma, or equivalent. Address the applicability of assumption 4 to Waterford. If the ANS 5.1- 1979 + 2 sigma model is used in the Waterford ELAP analysis, address the adequacy of the use of the decay heat model in terms of the plant-specific values of the following key parameters: (1) initial power level, (2) fuel enrichment, (3) fuel burnup, (4) effective full power operating days per fuel cycle, (5) number of fuel cycles, if hybrid fuels are used in the core, and (6) fuel characteristics (addressing whether they are based on the beginning of the cycle, middle of the cycle, or end of the cycle). If a different decay heat model is used, describe the specific model and address the adequacy of the model and the analytical results.	This item was closed during the July 2015 NRC Audit Visit.
3.2.1.8.A	Core Sub-Criticality- Regarding boron mixing, the NRC staff has not yet accepted the PWROG [Pressurized Water Reactor Owners Group] position paper on boron mixing. Therefore, additional technical justification will be needed to resolve this issue, both generically and on a plant-specific basis.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.2.A	Ventilation - Adequacy of ventilation in the control room to protect energized equipment throughout the entire ELAP event, especially if the ELAP is due to high temperature hazard.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.2.B	Ventilation- Effects of elevated temperatures in the battery room, especially if the ELAP is due to a high temperature hazard.	This item was statused as Open during the July 2015 NRC Audit Visit. See the July 2015 NRC Audit Visit FLEX Related Open Items table (below) Audit Item OI 3.2.4.2.B for status.

Interim Staff Evaluation Open Items		Status
3.2.4.2.C	Ventilation - Hydrogen concentration in the battery rooms during recharging	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.2.D	Ventilation - Loss of ventilation and any potential impacts on the necessary equipment in the TDEFW pump room.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.4.A	Lighting - Review the licensee's assessment of the habitability/accessibility requirements to ensure lighting is appropriately addressed.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.8.A	Electrical Power Sources/Isolation and Interactions- Provide a summary of the sizing calculations used to determine the adequacy of the FLEX generators used to power plant electrical equipment.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.10.A	Load Reduction to Conserve DC Power - The licensee's Integrated Plan on Page 7 identifies dc load shed at hour 1 and 4. With regard to the load shedding of the dc bus in order to conserve battery capacity: a. Provide the dc load profile for the mitigation strategies to maintain core cooling, containment, and SFP cooling during all modes of operation. In your response, describe any load shedding that is assumed to occur and the actions necessary to complete each load shed. Also provide a detailed discussion on the loads that will be shed from the dc bus, the equipment location (or location where the required action needs to be taken), and the required operator actions necessary and the time to complete each action. In your response, explain which functions are lost as a result of shedding each load and discuss any impact on defense-in- depth strategies and redundancy. b. Identify any plant components that will change state if vital ac or dc power is lost or de-energized during the load shed. c. Provide the minimum voltage that must be maintained and the basis for the minimum voltage on each battery/dc bus during each Phase under all MODES of operation (consider the impact of reduced loading as a result of load shedding).	This item was closed during the July 2015 NRC Audit Visit.

Interim Staff Evaluation Confirmatory Items		Status
3.1.1.1.A	Seismic Protection - Licensee to ensure that: 1) seismic interactions to ensure equipment is not damaged by non-seismically robust equipment or structures for portable equipment that will be stored outside; 2) how large FLEX equipment such as pumps and power supplies stored inside seismic structures is appropriately secured to protect them during a seismic event; and, 3) where other portable equipment such as hoses and power cables would be stored to assure proper protection from a seismic event.	This item was closed during the July 2015 NRC Audit Visit.
3.1.1.2.A	Seismic Deployment - Protection of the connection points for Reactor Coolant System (RCS) inventory control during the final phase is yet to be determined (TBD).	This item was closed during the July 2015 NRC Audit Visit.
3.1.1.2.B	Seismic Protection - Protection of the tow vehicle used to move the spare or "N+1" FLEX generator. (Also tied into to the ability to move equipment in the flooding context discussed in Section 3.1.2.2 and wind protection for the vehicle discussed in Section 3.1.3.2)	This item was closed during the July 2015 NRC Audit Visit.
3.1.1.3.A	Seismic Procedural Interface - Seismic hazards associated with large internal flooding sources that are not seismically robust and do not require ac power, and the use of ac power to mitigate ground water in critical locations.	This item was statused as Open during the July 2015 NRC Audit Visit. See the July 2015 NRC Audit Visit FLEX Related Open Items table (below) Audit Item CI 3.1.1.3.A for status.
3.1.1.4.A	Seismic Off site resources - The licensee has not yet identified the local staging area and method of transportation to the site.	This item was closed during the July 2015 NRC Audit Visit.
3.1.2.2.A	Flooding Deployment- Implementation of flooding persistence into their FLEX strategies for pre-event staging of FLEX equipment.	This item was closed during the July 2015 NRC Audit Visit.
3.1.2.3.A	Flooding Procedural Interface- Deployment of portable equipment in flooded conditions not incorporated into flood procedures or the need to deploy temporary flood barriers and extraction pumps necessary to support deployment.	This item was closed during the July 2015 NRC Audit Visit.

Interim Staff Evaluation Confirmatory Items		Status
3.1.3.2.A	Wind Deployment - Whether procedures and programs will include taking proactive actions such as testing, connecting, and readying exposed portable equipment to reduce the potential for wind impacts.	This item was closed during the July 2015 NRC Audit Visit.
3.2.1.1.A	CENTS - Verify the use of CENTS in the ELAP analysis for Waterford is limited to the flow conditions before reflux boiling initiates. This includes providing a justification for how the initiation of reflux boiling is defined.	This item was closed during the July 2015 NRC Audit Visit.
3.2.1.4.A	Initial Values for Key Plant Parameters and Assumptions- Review analysis of UHS [Ultimate Heat Sink] (licensee open item OI5)	This item was closed during the July 2015 NRC Audit Visit.
3.2.3.A	Containment Functions Strategies - Review the results of the finalized containment analysis associated with open item OI2 of the Integrated Plan, which shows that containment functions will be (potentially) restored and maintained in response to an ELAP event.	This item was statused as Open during the July 2015 NRC Audit Visit. See the July 2015 NRC Audit Visit FLEX Related Open Items table (below) Audit Item CI 3.2.3.A for status.
3.2.4.4.B	Communications - Confirm that upgrades to the site's communications systems have been completed.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.5.A	Protected and Internal Locked Area Access- Verify access plans are incorporated into FLEX strategies.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.6.A	Personnel Habitability - Review the licensee's assessment of the habitability/accessibility requirements in all critical areas.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.7.A	Water Sources -Verify the evaluation of the suction path from the TDEFWP to the WCTs [Wet Cooling Towers] through a non-running ACCWS [Auxiliary Component Cooling Water System] pump post-ELAP confirms it is viable.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.7.B	Water Sources - Description of how the licensee would get water from the Mississippi River to the FLEX pumps.	This item was closed during the July 2015 NRC Audit Visit.

Interim Staff Evaluation Confirmatory Items		Status
3.2.4.8.B	Electrical Power Sources/Isolation and Interactions - Licensee to provide the level of detail of the FLEX instrumentation to ensure that electrical equipment remains protected (from an electrical standpoint- e.g., power fluctuations). Also, confirm electrical isolation to ensure that the portable/FLEX diesel generators are isolated from Class 1 E diesel generators to prevent simultaneously supplying power to same Class 1 E bus.	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.9.A	Portable Equipment Fuel - Diesel fuel oil supply for the diesel driven pump and how continued operation to ensure core cooling is maintained. Diesel fuel oil supply (e.g., fuel oil storage tank volume, supply pathway, etc.) for the FLEX generators and how continued operation to ensure core and SFP cooling is maintained indefinitely (i.e., Phase 2 and 3).	This item was closed during the July 2015 NRC Audit Visit.
3.2.4.9.B	Portable Equipment Fuel - Discuss how fuel quality will be maintained.	This item was closed during the July 2015 NRC Audit Visit.

Audit Question Open Items	Status	Completion or Target Date
WF3-001	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.1.1.A)	Closed
WF3-002	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-003	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.1.2.A)	Closed
WF3-004	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.1.2.B)	Closed
WF3-005	This item was closed during the July 2015 NRC Audit Visit.(Associated with ISE Confirmatory Item 3.1.1.3.A)	Closed
WF3-006	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.1.4.A)	Closed
WF3-007	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.2.2.A)	Closed
WF3-008	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-009	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.2.3.A)	Closed

Audit Question Open Items	Status	Completion or Target Date
WF3-010	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-011	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-012	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.1.3.2.A)	Closed
WF3-013	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-014	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-015	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-017	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Items 3.2.1.1.B, & 3.2.1.8.A)	Closed
WF3-018	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Item 3.2.1.2.A & 3.2.1.2.B)	Closed
WF3-019	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Item 3.2.1.1.B)	Closed
WF3-020	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.1.1.A)	Closed
WF3-021	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Item 3.2.1.3.A)	Closed
WF3-022	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-023	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-024	This item was statused as Open during the July 2015 NRC Audit Visit. See the July 2015 NRC Audit Visit FLEX Related Open Items table (below) Audit Item AQ 24 for status.	See AQ 24
WF3-025	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.4.7.A)	Closed
WF3-026	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-027	This item was closed during the July 2015 NRC Audit Visit.	Closed

Audit Question Open Items	Status	Completion or Target Date
WF3-028	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-029	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-030	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.3.A)	Closed
WF3-031	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-032	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Items 3.2.4.2.A, 3.2.4.2.B, 3.2.4.2.C, 3.2.4.2.D)	Closed
WF3-033	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.4.6.A)	Closed
WF3-034	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Item 3.2.4.4.A)	Closed
WF3-035	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.4.5.A)	Closed
WF3-036	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.4.7.B)	Closed
WF3-038	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Item 3.2.4.8.B)	Closed
WF3-039	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Confirmatory Items 3.2.4.9.A and 3.2.4.9.B)	Closed
WF3-040	This item was closed during the July 2015 NRC Audit Visit.	Closed
WF3-041	This item was closed during the July 2015 NRC Audit Visit. (Associated with ISE Open Items 3.2.4.8.A & 3.2.4.10.A)	Closed

*Closed indicates that Entergy's response is complete.

July 2015 NRC Audit Visit FLEX-Related Open Items			
Audit Item Reference	**Item Description**	**Licensee Input Needed or NRC Action to Close**	**Status**
OI 3.2.4.2.B	Ventilation- Effects of elevated temperatures in the battery room, especially if the ELAP is due to a high temperature hazard.		Open In progress, expected completion date is September 2015
CI 3.1.1.3.A	Seismic Procedural Interface - Seismic hazards associated with large internal flooding sources that are not seismically robust and do not require ac power, and the use of ac power to mitigate ground water in critical locations.		Open In progress, expected completion date is September 2015
CI 3.2.3.A	Containment Functions Strategies - Review the results of the finalized containment analysis associated with open item OI2 of the Integrated Plan, which shows that containment functions will be (potentially) restored and maintained in response to an ELAP event.		Open Pending NRC review, no further Entergy action required.
AQ 24	List the safety and non-safety related (portable and plant installed) systems or equipment that are credited in the ELAP analysis for consequences mitigation, and for all the systems or equipment, discuss the associated design safety functions and justify the listed systems or equipment are available and reliable to provide the design functions on demand during the ELAP.		Open In progress, expected completion date is September 2015

July 2015 NRC Audit Visit FLEX-Related Open Items			
Audit Item Reference	**Item Description**	**Licensee Input Needed or NRC Action to Close**	**Status**
SE 3	Discuss how the plant specific guidance, mitigation strategies and the associated administrative controls and training program will be developed and implemented		Open In progress, expected completion date is September 2015
SE 7	Please describe the impact of recent MOHR's SFPI equipment failures (failure of the filter coil (or choke) in particular) on the Waterford SFP level instrument. Also, any actions/measures Waterford plans to implement to address this equipment failure.		Open Generic issue with MOHR's SFPI equipment failures. No further Entergy action required.
SE 8	Provide an evaluation of the environmental qualification of containment electrical equipment as well as the atmospheric relief valves showing that the equipment will be functional for the ELAP mission time.		Open In progress, expected completion date is September 2015
SE 18	Provide additional justification for the alternate approach to NEI 12-06 involving the use of installed spent fuel pool cooling pumps.		Open In progress, expected completion date is September 2015
SE 24	Guidance for transitioning from Phase 2 DGs to Phase 3 Turbine Generators (FSG5 Attachment 21) did not address deployment during flooded conditions.		Open In progress, expected completion date is September 2015

July 2015 NRC Audit Visit FLEX-Related Open Items			
Audit Item Reference	**Item Description**	**Licensee Input Needed or NRC Action to Close**	**Status**
SE 25	Provide an evaluation for the robustness of the "N" storage Building and the room beneath where electrical connection panel is located.		Open In progress, expected completion date is September 2015
SE 26	During the site audit walkdown, the NRC staff noticed that the SFPI cable conduits at EL. 21' of the RAB were installed side by side, 5" apart, for approximately 20'. This conduit installation does not meet the NRC Order EA-12-051, which requires The spent fuel pool level instrument channels shall be arranged in a manner that provides reasonable protection of the level indication function against missiles that may result from damage to the structure over the spent fuel pool. This protection may be provided by locating the instruments to maintain instrument channel separation within the spent fuel pool area, and to utilize inherent shielding from missiles provided by existing recesses and corners in the spent fuel pool structure.		Open In progress, expected completion date is September 2015
SE 27	The licensee plans to use a single installed suction source and connection point for the FLEX Core Cooling pump and the CCW makeup pumps (used for spent fuel pool		Open In progress, expected completion date is September 2015

July 2015 NRC Audit Visit FLEX-Related Open Items			
Audit Item Reference	**Item Description**	**Licensee Input Needed or NRC Action to Close**	**Status**
	cooling). The staff considers this an alternative to NEI 12-06 Section 3.2.2. Specifically, Table D-1 provides guidance on primary and alternate connections and states that injection points are, "required to inject through separate divisions/trains, i.e., should not have both connections in one division/train. "While the licensee has multiple injection paths for core cooling downstream of the FLEX manifold, all cooling water delivery paths must be routed through the single WCT outlet and connection point. Therefore, both the primary and alternate methods share a common connection.		

7 Potential Interim Staff Evaluation Impacts

There are no potential impacts to the Interim Staff Evaluation identified at this time.

8 References

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

1. Waterford Steam Electric Station, Unit 3 letter to NRC, "Overall Integrated Plan in Response to March 12, 2012, Commission Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated February 28, 2013 (ADAMS Accession No. ML13063A266)
2. NRC Order Number EA-12-049, "Order to Modify Licenses With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012 (ADAMS Accession No. ML12054A736).

3. Waterford Steam Electric Station, Unit 3 letter to NRC, “First Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” dated August 28, 2013. (ADAMS Accession No. ML13241A281)
4. NRC letter to Entergy Operations, Inc. - Waterford Steam Electric Station, Unit 3 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12- 049 (Mitigation Strategies) (TAC No. MF0977), dated November 22, 2013 (ADAMS Accession No. ML13220A402)
5. Waterford Steam Electric Station, Unit 3 letter to NRC, “Second Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” dated February 28, 2014 (ADAMS Accession No. ML14059A085)
6. Waterford Steam Electric Station, Unit 3 letter to NRC, “Third Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” dated August 28, 2014 (ADAMS Accession No. ML14241A270)
7. Waterford Steam Electric Station, Unit 3 letter to NRC, “Fourth Six Month Status Report for Implementation of Order EA-12-049, Commission Order Modifying License With Regard To Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” dated February 26, 2015 (ADAMS Accession No.ML15057A548)