

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 11, 2014

Mr. Larry Meyer Site Vice President NextEra Energy Point Beach, LLC 6610 Nuclear Road Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 - STAFF ASSESSMENT OF

THE SEISMIC WALKDOWN REPORT SUPPORTING IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE

FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT

(TAC NOS. MF0161 AND MF0162)

Dear Mr. Meyer:

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a request for information letter per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions to be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for nuclear power plant licensees to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 26, 2012, as updated by letter dated October 3, 2013, NextEra Energy Point Beach, LLC (NextEra) submitted its Seismic Walkdown Report as requested in Enclosure 3 of the 50.54(f) letter for the Point Beach Nuclear Plant, Units 1 and 2. From June 17 to June 20, 2013, an NRC audit team conducted an on-site audit to gain a better understanding of the methods and procedures used by NextEra in performing seismic walkdowns and to facilitate the NRC staff's review of the walkdown report. By letter dated November 27, 2013, NextEra provided a response to NRC requests for additional information for the staff to complete its assessments.

The NRC staff acknowledges that NextEra provided an acceptable schedule to provide the results of walkdown activities in Appendix E of the updated walkdown report. NextEra will provide the results when all remaining walkdowns are completed for both units - no later than the first quarter of 2014. The NRC staff reviewed the information provided and, as documented in the enclosed staff assessments for the respective units at Point Beach, determined that sufficient information was provided to be responsive to Enclosure 3 of the 50.54(f) letter.

If you have any questions, please contact me at 301-415-3049 or by e-mail at Terry.Beltz@nrc.gov.

Sincerely,

Terry A. Beltz, Senior Project Manager

Plant Licensing Branch III-1

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-266, 50-301

Enclosures:

- Staff Assessment of Seismic Walkdown Report (Unit 1)
- 2. Staff Assessment of Seismic Walkdown Report (Unit 2)

cc w/encl: Distribution via Listserv

STAFF ASSESSMENT OF SEISMIC WALKDOWN REPORT NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT

NORTHERN STATES POWER COMPANY

POINT BEACH NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-266

1.0 INTRODUCTION

On March 12, 2012,¹ the U.S. Nuclear Regulatory Commission (NRC) issued a request for information per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter) to all power reactor licensees and holders of construction permits in active or deferred status. The request was part of the implementation of lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 3, "Recommendation 2.3: Seismic," to the 50.54(f) letter requested licensees to conduct seismic walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions using the corrective action program (CAP), verify the adequacy of monitoring and maintenance procedures, and report the results to the NRC.

The 50.54(f) letter requested licensees to provide the following:

- a. Information concerning the plant-specific hazard licensing bases and a description of the protection and mitigation features considered in the licensing basis evaluation.
- b. Information related to the implementation of the walkdown process.
- c. A list of plant-specific vulnerabilities identified by the Individual Plant Examination of External Events (IPEEE) program and a description of the actions taken to eliminate or reduce them.
- d. Results of the walkdown including key findings and identified degraded, nonconforming, or unanalyzed conditions.
- e. Any planned or newly installed protection and mitigation features.
- f. Results and any subsequent actions taken in response to the peer review.

In accordance with the 50.54(f) letter, Enclosure 3, Required Response Item 2, licensees were required to submit a response within 180 days of the NRC's endorsement of the seismic walkdown process. By letter dated May 29, 2012,³ the Nuclear Energy Institute (NEI) staff

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340

² ADAMS Accession No. ML12056A049

³ ADAMS Package Accession No. ML121640872

submitted Electric Power Research Institute document 1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," (walkdown guidance) to the NRC staff to consider for endorsement. By letter dated May 31, 2012, ⁴ the NRC staff endorsed the walkdown guidance.

By letter dated November 26, 2012,⁵ NextEra Energy Point Beach, LLC (NextEra, the licensee) provided a response to Enclosure 3 of the 50.54(f) letter Required Response Item 2, for the the Point Beach Nuclear Plant (Point Beach), Unit 1. The NRC staff reviewed the walkdown report and determined that a regulatory audit would assist the staff in completing its review. A regulatory audit was conducted on-site from June 17 to June 20, 2013, to gain a better understanding of the processes and procedures used by the licensee in conducting its walkdowns and walk-bys. In response to the NRC staff's questions during the audit, the licensee updated its walkdown report by letter dated October 3, 2013⁶. The NRC staff reviewed the updated walkdown report and determined that further information was required to assist the staff in completing its review. In a letter dated November 1, 2013⁷, the NRC staff requested additional information to gain a better understanding of specific activities performed by the licensee in conducting the walkdowns and walk-bys. The licensee responded to the NRC staff request by letter dated November 27, 2013.⁸

The NRC staff evaluated the licensee's submittals to determine if the information provided in the walkdown report met the intent of the walkdown guidance and if the licensee responded appropriately to Enclosure 3 of the 50.54(f) letter.

2.0 REGULATORY EVALUATION

The structures, systems, and components (SSCs) important to safety in operating nuclear power plants are designed either in accordance with, or meet the intent of Appendix A to 10 CFR Part 50, General Design Criteria (GDC) 2: "Design Bases for Protection Against Natural Phenomena;" and Appendix A to 10 CFR Part 100, "Reactor Site Criteria." The GDC 2 states that SSCs important to safety at nuclear power plants shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions.

For initial licensing, each licensee was required to develop and maintain design bases that, as defined by 10 CFR 50.2, identify the specific functions that an SSC of a facility must perform, and the specific values or ranges of values chosen for controlling parameters as reference bounds for the design.

The design bases for the SSCs reflect appropriate consideration of the most severe natural phenomena that have been historically reported for the site and surrounding area. The design bases also reflect sufficient margin to account for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.

⁴ ADAMS Accession No. ML12145A529

⁵ ADAMS Accession No. ML12332A070

⁶ ADAMS Accession No. ML13277A109

⁷ ADAMS Accession No. ML13304B418

⁸ ADAMS Accession No. ML13331A912

The current licensing basis is the set of NRC requirements applicable to a specific plant, including the licensee's docketed commitments for ensuring compliance with, and operation within, applicable NRC requirements and the plant-specific design basis, including all modifications and additions to such commitments over the life of the facility operating license.

3.0 TECHNICAL EVALUATION

3.1 Seismic Licensing Basis Information

The licensee provided information on the plant-specific licensing basis for the Seismic Category I SSCs for Point Beach, Unit 1, in Section 2.0 of its walkdown report. Consistent with the walkdown guidance, the NRC staff noted that the report includes a summary of the Safe Shutdown Earthquake (SSE) and a description of the codes, standards, and methods that were used in the design of the Seismic Category I SSCs for meeting the plant-specific seismic licensing basis requirements. The NRC staff reviewed Section 2.0 of the walkdown report, focusing on the summary of the SSE and the design codes used in the design of Point Beach, Unit 1.

Based on the NRC staff's review, the staff concludes that the licensee has provided information on the plant-specific seismic licensing basis and a description of the protection and mitigation features considered in the licensing bases evaluation consistent with Section 8, Submittal Report, of the walkdown guidance.

3.2 Seismic Walkdown Methodology Implementation

Section 2, Personnel Qualifications; Section 3, Selection of SSCs; Section 4, Seismic Walkdowns and Area Walk-Bys; and Section 5, Seismic Licensing Basis Evaluations, of the walkdown guidance provide information to licensees regarding the implementation of an appropriate seismic walkdown methodology. By letter dated July 9, 2012, the licensee confirmed that it would utilize the walkdown guidance in the performance of the seismic walkdowns at Point Beach, Unit 1.

The walkdown report dated November 26, 2012, as updated on October 3, 2013, did not identify deviations from the walkdown guidance.

The NRC staff reviewed the following sections of the walkdown methodology implementation provided in the walkdown report:

- Personnel Qualifications
- Development of the Seismic Walkdown Equipment Lists (SWELs)
- Implementation of the Walkdown Process
- Licensing Basis Evaluations and Results

_

⁹ ADAMS Accession No. ML12192A206

3.2.1 Personnel Qualifications

Section 2, Personnel Qualifications, of the walkdown guidance provides licensees with qualification information for personnel involved in the conduct of the seismic walkdowns and area walk-bys.

The NRC staff reviewed the information provided in Section 3.0 and Appendix A of the walkdown report, which includes information on the walkdown personnel and their qualifications. Specifically, the staff reviewed the summary of the background, experience, and level of involvement for the following personnel involved in the seismic walkdown activities: equipment selection personnel, seismic walkdown engineers (SWEs), licensing basis reviewers, IPEEE reviewers, peer review team, and operations staff.

Based on the review of the licensee's submittals, the NRC staff concludes that those involved in the seismic walkdown activities have the appropriate seismic background, knowledge and experience, as specified in Section 2 of the walkdown guidance.

3.2.2 Development of the SWELs

Section 3, Selection of SSCs, of the walkdown guidance provides information to licensees for selecting the SSCs that should be placed on the SWELs, so that they can be walked down by qualified personnel.

The NRC staff reviewed the overall process used by the licensee to develop the Point Beach, Unit 1, base list, SWEL 1 (sample list of designated safety functions equipment) and SWEL 2 (sample list of spent fuel pool related equipment). The equipment selection process followed the screening process shown in Figures 1-1 and 1-2 of the walkdown guidance. Based on Appendix B of the walkdown report, Point Beach, Unit 1, SWEL 1 and 2 meet the inclusion requirements of the walkdown guidance. Specifically, the following attributes were considered in the sample selection:

- A variety of systems, equipment and environments
- IPEEE equipment
- Major new or replacement equipment
- Risk considerations

Due to individual plant configurations and the walkdown guidance screening process followed to select the final SWEL equipment, it is possible that some classes of equipment will not be represented on the SWEL. The walkdown guidance recognizes this is due to the equipment not being present in the plant (e.g., some plants generate DC power using inverters and therefore do not have motor generators) or the equipment being screened out during the screening process as described in Section 3 of the walkdown guidance. Based on the information provided, the NRC staff noted that a detailed explanation was provided justifying cases where specific classes of equipment were not included as part of the SWEL, and concludes that these exclusions are acceptable.

In Section 4.2 of Appendix B of the walkdown report, the licensee described the approach used to identify items that could lead to a rapid drain-down of the spent fuel pool (SFP). Based on the

discussions provided in this section, the licensee identified one item that had the potential to be a rapid drain-down path and included it in the SWEL 2. Walkdown results for this item were provided in the seismic walkdown checklist. After reviewing this information, the NRC staff finds that the licensee provided sufficient information to describe and assess the rapid drain-down item identified for the Point Beach SFP. No seismic adverse condition was identified as part of the walkdown performed for this item.

After reviewing SWELs 1 and 2, the NRC staff concludes that the sample of SSCs represents a diversity of component types and assures inclusion of components from critical systems and functions, thereby meeting the intent of the walkdown guidance. In addition, the NRC staff notes that the equipment selection personnel were appropriately supported by plant operations staff as described in the walkdown guidance.

3.2.3 Implementation of the Walkdown Process

Section 4, Seismic Walkdowns and Area Walk-Bys, of the walkdown guidance provides information to licensees regarding the conduct of the seismic walkdowns and area walk-bys for each site.

The NRC staff reviewed Section 5.0 of the walkdown report, which summarizes the results of the seismic walkdowns and area walk-bys, including an overview of the number of items walked down and the number of areas walked-by. The walkdown report states that two Seismic Review Teams (SRTs), which consisted of at least two trained Seismic Walkdown Engineers (SWEs). conducted the seismic walkdowns and area walk-bys together during the weeks of September 17-21 and October 1-3, 2012. In addition, subsequent walkdowns were performed in 2013, as stated in Appendix E of the updated report dated October 3, 2013. The purpose of the last activity was to complete a number of items that were inaccessible during the initial walkdowns. The SWEs were assisted by plant operations personnel during the walkdown activities. The walkdown report also states that the SWEs discussed their observations and judgments with each other during the walkdowns. Additionally, the SWEs agreed on the results of their seismic walkdowns and area walk-bys before reporting the results of their review. Appendices C and D of the initial walkdown report provide the completed seismic walkdown checklists (SWCs) and area walk-by checklists (AWCs) documenting the results for each item of equipment on SWELs 1 and 2 and each area containing SWEL equipment. The licensee used the checklists provided in Appendix C of the walkdown guidance report without modification. SWCs and AWCs were not provided for the subsequent walkdowns that occurred during 2013. According to the licensee, these walkdown results will be provided to the NRC staff when all the remaining walkdowns are completed for both units.

The NRC staff reviewed these checklists and noted that SWCs and AWCs were not signed by the SWEs. During the audit, the NRC staff requested that the licensee explain the process that was followed when completing the checklists, and also explain why these checklists were not formally signed in the final walkdown report submitted to the NRC. The licensee explained its internal process that was followed and stated that the checklists completed in the field were considered drafts, and that they were often modified to document how issues were evaluated and resolved. These evaluations were annotated in a different set of checklists. The "intermediate" checklists were then modified, documenting the final condition after formal evaluations were performed. The licensee stated that these were the "final" checklists submitted to the NRC. All three

different sets of checklists were available to the NRC staff during the audit. The staff reviewed these checklists, and was often unable to trace the process followed once conditions were identified (original checklists), evaluated (intermediate checklists) and dispositioned (final checklists).

The licensee documented cases of potentially adverse seismic conditions (PASCs) in the checklists for further evaluation. Tables 5-2 and 5-3 of the updated walkdown report list each PASC identified during the initial seismic walkdowns and the area walk-bys, respectively. The tables describe how each condition was addressed (e.g., placement in the CAP), its resolution, and its current status. Based on the review of the checklists, the NRC staff was unable to confirm that all the PASCs identified during the walkdowns had been included in this table.

As such, by letter dated November 1, 2013, the NRC staff issued two requests for additional information (RAIs) in order to obtain clarification regarding the process followed by the licensee when evaluating conditions identified in the field during the walkdowns and walk-bys. In RAI-1. the staff requested the licensee provide further explanation regarding how a field observation was determined to be a PASC, and to provide further confirmation that the basis for determination was addressed using normal plant processes and documented in the walkdown report. In its response to RAI-1, the licensee provided a step-by-step approach that was adapted by the Seismic Walkdown Teams during the seismic walkdown for items considered not to be PASCs (i.e., no CAP entry needed) and for those found to be PASCs (i.e., entered into the CAP). The licensee stated that field observations were first discussed between at least two SWEs to determine if there was agreement that a degraded condition existed. If agreement is reached that a degraded condition exists, then the condition is noted on the checklists. Additional discussions are then performed to determine if a degraded condition was a PASC, and these may include Subject Matter Experts, simple calculations, review of drawings, or other types of design basis investigations. Degraded conditions that were not PASCs were identified on the checklists and submitted to the CAP. The CAP number is cross-referenced on the checklists. After a degraded condition was identified to be a PASC, a determination was made whether or not physical work is required to correct the condition. If physical work is required, then a Work Request (WR) is submitted. Initiation of a WR automatically initiated a Condition Report (CR). The CR is automatically entered into the site's CAP for completion of the license basis evaluation, if required. If no physical work is performed, then the PASC is entered directly into the plant's CAP for completion of a licensing basis evaluation, if required. The licensee stated that all identified PASCs were determined to be in conformance with the licensing basis. Finally, the licensee stated that no new items were identified when responding to the staff's concerns and that there were no additional CAP items to report.

After evaluating the licensee's response and reviewing Tables 5-2 and 5-3 of the updated walkdown report, the NRC staff finds that the licensee responded appropriately to RAI-1, that PASCs were properly identified and documented, and summary Tables 5-2 and 5-3 are considered complete.

In addition to the information provided above, the NRC staff notes that anchorage configurations were verified to be consistent with existing plant documentation for at least 50 percent of the SWEL items in accordance with Section 4 of the walkdown guidance.

Finally, although the walkdown report does not clearly state whether the licensee opened cabinets as part of the walkdowns, the licensee clarified during the audit that cabinets were opened for internal inspections. This information was confirmed by the NRC staff after a detailed review of SWCs.

The equipment and areas that were inaccessible during the 180-day period are listed in Table E-1 of the initial walkdown report. Table E-1 was updated showing that walkdowns were performed sometime in 2013 for all the items previously identified as inaccessible. Based on the information provided in Table E-1, the NRC staff was unable to determine exactly when in 2013 these walkdowns were performed. The licensee stated that the results of these walkdowns will be provided after all the walkdowns for both units are complete.

Based on the information provided in the licensee's submittals, the NRC staff concludes that the licensee's implementation of the walkdown process meets the intent of the walkdown guidance.

3.2.4 <u>Licensing Basis Evaluations and Results</u>

Section 5, Seismic Licensing Basis Evaluations, of the walkdown guidance provides information to licensees regarding the conduct of licensing basis evaluations for items identified during the seismic walkdowns as degraded, nonconforming, or unanalyzed that might have potential seismic significance.

The NRC staff reviewed Section 6.0 of the walkdown report, which discusses the process for conducting the seismic licensing basis evaluations of the PASCs identified during the seismic walkdowns and area walk-bys. The licensee stated in the walkdown report that PASCs identified during the walkdowns were documented in the SWCs and AWCs, and entered in the CAP. Additional clarification was provided as part of the licensee's response to RAI-1. In its response to RAI-1, the licensee stated the licensing basis evaluations were performed inside the CAP and that all identified PASCs were determined to be in conformance with the licensing basis. Tables 5-2 and 5-3 in the updated walkdown report list each PASC identified during the initial seismic walkdowns and the area walk-bys, respectively. These tables describe how each condition has been addressed (e.g., placement in the CAP) and its current status.

The NRC staff reviewed the CAP entries and the description of the actions taken or planned to address potential deficiencies. The staff concludes that the licensee appropriately identified degraded, nonconforming, or unanalyzed conditions and entered them into the CAP, which meets the intent of the walkdown guidance.

3.2.5 Conclusion

Based on the discussion above, the NRC staff concludes that the licensee's implementation of seismic walkdown methodology meets the intent of the walkdown guidance for personnel qualifications, development of SWELs, implementation of the walkdown process, and seismic licensing basis evaluations.

3.3 Peer Review

Section 6, Peer Review, of the walkdown guidance provides licensees with information regarding the conduct of peer reviews for the activities performed during the seismic walkdowns. Page 6-1 of the walkdown guidance identifies the following activities to be conducted during the peer review process:

- Review the selection of the SSCs included on the SWELs
- Review a sample of the checklists prepared for the seismic walkdowns and area walk-bys
- Review the licensing basis evaluations
- Review the decisions for entering the potentially adverse conditions into the CAP
- Review the walkdown report
- Summarize the results of the peer review process in the walkdown report

The NRC staff reviewed the information provided in Appendix F of the walkdown report which describes the conduct of the peer review. In addition, the staff reviewed the response to RAI-2. In RAI-2, the staff requested the licensee to provide additional information on the overall peer review process that was followed as part of the walkdown activities. Specifically, the staff requested the licensee to confirm that the activities identified on page 6-1 of the walkdown guidance were assessed and documented in the report. The licensee was also requested to confirm that any individual involved in performing any given walkdown activity was not a peer reviewer for that same activity. In response to RAI-2, the licensee confirmed that all the activities identified on page 6-1 of the walkdown guidance were included as part of the peer review process and referred to the summary of the peer review activities provided in the peer review report in Appendix F of the walkdown report. In addition, the licensee provided additional information on the level of involvement of the peer review team and its leaders in order to further demonstrate the independence of the peer review process.

The NRC staff reviewed the licensee's summary of each of these activities, which included the peer review team members' level of involvement, the peer review findings, and resolution of peer review comments. After reviewing the licensee's submittals, the NRC staff concludes that the licensee sufficiently documented the results of the peer review activities and how these reviews affected the work described in the walkdown report.

Based on the discussion above, the NRC staff concludes that the licensee's results of the peer review and subsequent actions taken in response to the peer review meets the intent of Section 6 of the walkdown guidance.

3.4 <u>IPEEE Information</u>

Section 7, IPEEE Vulnerabilities, of the walkdown guidance provides information to licensees regarding the reporting of the evaluations conducted and actions taken in response to seismic vulnerabilities identified during the IPEEE program. Through the IPEEE program and Generic Letter 88-20. "Individual Plant Examination of External Events for Severe Accident

Vulnerabilities," licensees previously performed a systematic examination to identify any plant-specific vulnerabilities to severe accidents.

The NRC staff reviewed Section 7.0 of the walkdown report which states that several plant improvements were made in response to seismic assessments in the IPEEE and Unresolved Safety Issue (USI) A-46 walkdowns. Table 3 of Appendix B of the updated walkdown report includes a list of the outliers and their resolutions. All identified IPEEE vulnerabilities have been resolved.

Based on the NRC staff's review of Section 7.0 of the walkdown report, the staff concludes that the licensee's identification of plant-specific vulnerabilities (including anomalies, outliers and other findings) identified by the IPEEE program, as well as actions taken to eliminate or reduce them, meets the intent of Section 7 of the walkdown guidance.

3.5 Planned Upgrades

The licensee did not identify any planned or newly installed protection and mitigation features in the walkdown report.

3.6 NRC Oversight

3.6.1 Independent Verification by Resident Inspectors

On July 6, 2012,¹⁰ the NRC issued Temporary Instruction (TI) 2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns." In accordance with the TI, NRC inspectors independently verified that the NextEra implemented the seismic walkdowns in accordance with the walkdown guidance. Additionally, the inspectors independently performed walkdowns of a sample of seismic protection features. The inspection reports dated February 7, 2013,¹¹ and May 13, 2013,¹² document the results of this inspection and state that no findings were identified.

3.6.2 NRC Staff Site Audit

The NRC staff performed an audit of Point Beach, Unit 1, during the week of June 17-20, 2013. During the audit, the staff gained a better understanding of the process used by the licensee to perform its walkdowns. The staff identified and conveyed to the licensee the specific issues to be addressed, and the licensee subsequently submitted an updated walkdown report. The NRC staff also noted that the licensee addressed several self-identified issues in the revised walkdown report. The audit report dated November 25, 2013, 13 provides the results of this audit.

4.0 INACCESSIBLE ITEMS

Equipment and areas of the plant that were inaccessible during the 180-day period are listed in Table E-1 of the initial walkdown report. Table E-1 was updated showing that walkdowns were

¹⁰ ADAMS Accession No. ML12156A052

¹¹ ADAMS Accession No. ML13042A051

¹² ADAMS Accession No. ML13133A356

¹³ ADAMS Accession No. ML13312A911

performed in 2013 for all the items previously identified as inaccessible. Based on the information provided in Table E-1, the staff was unable to determine exactly when in 2013 these walkdowns were performed. The licensee stated that the results of these walkdowns will be provided after all the walkdowns for both units are complete.

The NRC staff finds that the inaccessible equipment list was developed consistent with the walkdown guidance. The schedule for completion is consistent with the time to the next scheduled outage.

5.0 CONCLUSION

The NRC staff concludes that the licensee's implementation of seismic walkdown methodology meets the intent of the walkdown guidance. The staff concludes that, through the implementation of the walkdown guidance activities and, in accordance with plant processes and procedures, the licensee verified the plant configuration with the current seismic licensing basis; addressed degraded, nonconforming, or unanalyzed seismic conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the NRC staff notes that no immediate safety concerns were identified. The staff acknowledges that the licensee provided an acceptable schedule by letter dated October 3, 2013, and states that it will complete seismic walkdown activities of the delayed walkdown items no later than the first quarter of 2014. The licensee will provide the walkdown results to the NRC when all remaining walkdowns are completed for both units. The NRC staff's review determined that sufficient information was provided to be responsive to Enclosure 3 of the 50.54(f) letter.

STAFF ASSESSMENT OF SEISMIC WALKDOWN REPORT NEAR-TERM TASK FORCE RECOMMENDATION 2.3 RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT ACCIDENT

NORTHERN STATES POWER COMPANY

POINT BEACH NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-301

1.0 INTRODUCTION

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a request for information per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter) to all power reactor licensees and holders of construction permits in active or deferred status. The request was part of the implementation of lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 3, "Recommendation 2.3: Seismic," to the 50.54(f) letter requested licensees to conduct seismic walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions using the corrective action program (CAP), verify the adequacy of monitoring and maintenance procedures, and report the results to the NRC.

The 50.54(f) letter requested licensees to provide the following:

- a. Information concerning the plant-specific hazard licensing bases and a description of the protection and mitigation features considered in the licensing basis evaluation.
- b. Information related to the implementation of the walkdown process.
- c. A list of plant-specific vulnerabilities identified by the Individual Plant Examination of External Events (IPEEE) program and a description of the actions taken to eliminate or reduce them.
- d. Results of the walkdown including key findings and identified degraded, nonconforming, or unanalyzed conditions.
- e. Any planned or newly installed protection and mitigation features.
- f. Results and any subsequent actions taken in response to the peer review.

In accordance with the 50.54(f) letter, Enclosure 3, Required Response Item 2, licensees were required to submit a response within 180 days of the NRC's endorsement of the seismic walkdown process. By letter dated May 29, 2012,³ the Nuclear Energy Institute (NEI) staff

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340

² ADAMS Accession No. ML12056A049

³ ADAMS Package Accession No. ML121640872

submitted Electric Power Research Institute document 1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," (walkdown guidance) to the NRC staff to consider for endorsement. By letter dated May 31, 2012,⁴ the NRC staff endorsed the walkdown guidance.

By letter dated November 26, 2012,⁵ NextEra Energy Point Beach, LLC (NextEra, the licensee) provided a response to Enclosure 3 of the 50.54(f) letter Required Response Item 2, for the the Point Beach Nuclear Plant (Point Beach), Unit 2. The NRC staff reviewed the walkdown report and determined that a regulatory audit would assist the staff in completing its review. At regulatory audit was conducted on-site from June 17 to June 20, 2013, to gain a better understanding of the processes and procedures used by the licensee in conducting its walkdowns and walk-bys. In response to the NRC staff's questions during the audit, the licensee updated its walkdown report by letter dated October 3, 2013⁶. The NRC staff reviewed the updated walkdown report and determined that further information was required to assist the staff in completing its review. In a letter dated November 1, 2013⁷, the NRC staff requested additional information to gain a better understanding of specific activities performed by the licensee in conducting the walkdowns and walk-bys. The licensee responded to the NRC staff request by letter dated November 27, 2013.⁸

The NRC staff evaluated the licensee's submittals to determine if the information provided in the walkdown report met the intent of the walkdown guidance and if the licensee responded appropriately to Enclosure 3 of the 50.54(f) letter.

2.0 REGULATORY EVALUATION

The structures, systems, and components (SSCs) important to safety in operating nuclear power plants are designed either in accordance with, or meet the intent of Appendix A to 10 CFR Part 50, General Design Criteria (GDC) 2: "Design Bases for Protection Against Natural Phenomena;" and Appendix A to 10 CFR Part 100, "Reactor Site Criteria." The GDC 2 states that SSCs important to safety at nuclear power plants shall be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform their safety functions.

For initial licensing, each licensee was required to develop and maintain design bases that, as defined by 10 CFR 50.2, identify the specific functions that an SSC of a facility must perform, and the specific values or ranges of values chosen for controlling parameters as reference bounds for the design.

The design bases for the SSCs reflect appropriate consideration of the most severe natural phenomena that have been historically reported for the site and surrounding area. The design bases also reflect sufficient margin to account for the limited accuracy, quantity, and period of time in which the historical data have been accumulated.

⁴ ADAMS Accession No. ML12145A529

⁵ ADAMS Accession No. ML12332A070

⁶ ADAMS Accession No. ML13277A109

⁷ ADAMS Accession No. ML13304B418

⁸ ADAMS Accession No. ML13331A912

The current licensing basis is the set of NRC requirements applicable to a specific plant, including the licensee's docketed commitments for ensuring compliance with, and operation within, applicable NRC requirements and the plant-specific design basis, including all modifications and additions to such commitments over the life of the facility operating license.

3.0 TECHNICAL EVALUATION

3.1 Seismic Licensing Basis Information

The licensee provided information on the plant-specific licensing basis for the Seismic Category I SSCs for Point Beach, Unit 1, in Section 2.0 of its walkdown report. Consistent with the walkdown guidance, the NRC staff noted that the report includes a summary of the Safe Shutdown Earthquake (SSE) and a description of the codes, standards, and methods that were used in the design of the Seismic Category I SSCs for meeting the plant-specific seismic licensing basis requirements. The NRC staff reviewed Section 2.0 of the walkdown report, focusing on the summary of the SSE and the design codes used in the design of Point Beach, Unit 2.

Based on the NRC staff's review, the staff concludes that the licensee has provided information on the plant-specific seismic licensing basis and a description of the protection and mitigation features considered in the licensing bases evaluation consistent with Section 8, Submittal Report, of the walkdown guidance.

3.2 Seismic Walkdown Methodology Implementation

Section 2, Personnel Qualifications; Section 3, Selection of SSCs; Section 4, Seismic Walkdowns and Area Walk-Bys; and Section 5, Seismic Licensing Basis Evaluations, of the walkdown guidance provide information to licensees regarding the implementation of an appropriate seismic walkdown methodology. By letter dated July 9, 2012, the licensee confirmed that it would utilize the walkdown guidance in the performance of the seismic walkdowns at Point Beach, Unit 2.

The walkdown report dated November 26, 2012, as updated on October 3, 2013, did not identify deviations from the walkdown guidance.

The NRC staff reviewed the following sections of the walkdown methodology implementation provided in the walkdown report:

- Personnel Qualifications
- Development of the Seismic Walkdown Equipment Lists (SWELs)
- Implementation of the Walkdown Process
- Licensing Basis Evaluations and Results

⁹ ADAMS Accession No. ML12192A206

3.2.1 Personnel Qualifications

Section 2, Personnel Qualifications, of the walkdown guidance provides licensees with qualification information for personnel involved in the conduct of the seismic walkdowns and area walk-bys.

The NRC staff reviewed the information provided in Section 3.0 and Appendix A of the walkdown report, which includes information on the walkdown personnel and their qualifications. Specifically, the staff reviewed the summary of the background, experience, and level of involvement for the following personnel involved in the seismic walkdown activities: equipment selection personnel, seismic walkdown engineers (SWEs), licensing basis reviewers, IPEEE reviewers, peer review team, and operations staff.

Based on the review of the licensee's submittals, the NRC staff concludes that those involved in the seismic walkdown activities have the appropriate seismic background, knowledge and experience, as specified in Section 2 of the walkdown guidance.

3.2.2 <u>Development of the SWELs</u>

Section 3, Selection of SSCs, of the walkdown guidance provides information to licensees for selecting the SSCs that should be placed on the SWELs, so that they can be walked down by qualified personnel.

The NRC staff reviewed the overall process used by the licensee to develop the Point Beach, Unit 1, base list, SWEL 1 (sample list of designated safety functions equipment) and SWEL 2 (sample list of spent fuel pool related equipment). The equipment selection process followed the screening process shown in Figures 1-1 and 1-2 of the walkdown guidance. Based on Appendix B of the walkdown report, Point Beach, Unit 2, SWEL 1 and 2 meet the inclusion requirements of the walkdown guidance. Specifically, the following attributes were considered in the sample selection:

- A variety of systems, equipment and environments
- IPEEE equipment
- Major new or replacement equipment
- Risk considerations

Due to individual plant configurations and the walkdown guidance screening process followed to select the final SWEL equipment, it is possible that some classes of equipment will not be represented on the SWEL. The walkdown guidance recognizes this is due to the equipment not being present in the plant (e.g., some plants generate DC power using inverters and therefore do not have motor generators) or the equipment being screened out during the screening process as described in Section 3 of the walkdown guidance. Based on the information provided, the NRC staff noted that a detailed explanation was provided justifying cases where specific classes of equipment were not included as part of the SWEL, and concludes that these exclusions are acceptable.

In Section 4.2 of Appendix B of the walkdown report for Point Beach, Unit 1, the licensee described the approach used to identify items that could lead to a rapid drain-down of the spent

fuel pool (SFP). This approach was not described for Point Beach, Unit 2, since the SFP is shared between both units. Based on the discussions provided in this section, the licensee identified one item that had the potential to be a rapid drain-down path and included it in the SWEL 2. This normally closed manual valve, part of the fuel transfer canal darin, was added to the SWEL 2. Walkdown results for this item and the rest of the SWEL 2 items were provided in the seismic walkdown checklists for Unit 1. After reviewing this information, the NRC staff finds that the licensee provided sufficient information to describe and assess the rapid drain-down item identified for the Point Beach SFP. No seismic adverse condition was identified as part of the walkdown performed for this item.

After reviewing SWELs 1 and 2, the NRC staff concludes that the sample of SSCs represents a diversity of component types and assures inclusion of components from critical systems and functions, thereby meeting the intent of the walkdown guidance. In addition, the NRC staff notes that the equipment selection personnel were appropriately supported by plant operations staff as described in the walkdown guidance.

3.2.3 Implementation of the Walkdown Process

Section 4, Seismic Walkdowns and Area Walk-Bys, of the walkdown guidance provides information to licensees regarding the conduct of the seismic walkdowns and area walk-bys for each site.

The NRC staff reviewed Section 5.0 of the walkdown report, which summarizes the results of the seismic walkdowns and area walk-bys, including an overview of the number of items walked down and the number of areas walked-by. The walkdown report states that two Seismic Review Teams (SRTs), which consisted of at least two trained Seismic Walkdown Engineers (SWEs), conducted the seismic walkdowns and area walk-bys together during the weeks of September 17-21 and October 1-3, 2012. In addition, subsequent walkdowns were performed in 2013, as stated in Appendix E of the updated report dated October 3, 2013. The purpose of the last activity was to complete a number of items that were inaccessible during the initial walkdowns. The SWEs were assisted by plant operations personnel during the walkdown activities. The walkdown report also states that the SWEs discussed their observations and judgments with each other during the walkdowns. Additionally, the SWEs agreed on the results of their seismic walkdowns and area walk-bys before reporting the results of their review. Appendices C and D of the initial walkdown report provide the completed seismic walkdown checklists (SWCs) and area walk-by checklists (AWCs) documenting the results for each item of equipment on SWELs 1 and 2 and each area containing SWEL equipment. The licensee used the checklists provided in Appendix C of the walkdown guidance report without modification. SWCs and AWCs were not provided for the subsequent walkdowns that occurred during 2013. According to the licensee, these walkdown results will be provided to the NRC staff when all the remaining walkdowns are completed for both units.

The NRC staff reviewed these checklists and noted that SWCs and AWCs were not signed by the SWEs. During the audit, the NRC staff requested that the licensee explain the process that was followed when completing the checklists, and also explain why these checklists were not formally signed in the final walkdown report submitted to the NRC. The licensee explained its internal process that was followed and stated that the checklists completed in the field were considered drafts, and that they were often modified to document how issues were evaluated and resolved.

These evaluations were annotated in a different set of checklists. The "intermediate" checklists were then modified, documenting the final condition after formal evaluations were performed. The licensee stated that these were the "final" checklists submitted to the NRC. All three different sets of checklists were available to the NRC staff during the audit. The staff reviewed these checklists, and was often unable to trace the process followed once conditions were identified (original checklists), evaluated (intermediate checklists) and dispositioned (final checklists).

The licensee documented cases of potentially adverse seismic conditions (PASCs) in the checklists for further evaluation. Tables 5-2 and 5-3 of the updated walkdown report list each PASC identified during the initial seismic walkdowns and the area walk-bys, respectively. The tables describe how each condition was addressed (e.g., placement in the CAP), its resolution, and its current status. Based on the review of the checklists, the NRC staff was unable to confirm that all the PASCs identified during the walkdowns had been included in this table.

As such, by letter dated November 1, 2013, the NRC staff issued two requests for additional information (RAI) in order to obtain clarification regarding the process followed by the licensee when evaluating conditions identified in the field during the walkdowns and walk-bys. In RAI-1, the staff requested the licensee provide further explanation regarding how a field observation was determined to be a PASC, and to provide further confirmation that the basis for determination was addressed using normal plant processes and documented in the walkdown report. In its response to RAI-1, the licensee provided a step-by-step approach that was adapted by the Seismic Walkdown Teams during the seismic walkdown for items considered not to be PASCs (i.e., no CAP entry needed) and for those found to be PASCs (i.e., entered into the CAP). The licensee stated that field observations were first discussed between at least two SWEs to determine if there was agreement that a degraded condition existed. If agreement is reached that a degraded condition exists, then the condition is noted on the checklists. Additional discussions are then performed to determine if a degraded condition was a PASC, and these may include Subject Matter Experts (SME), simple calculations, review of drawings, or other types of design basis investigations. Degraded conditions that were not PASCs were identified on the checklists and submitted to the CAP. The CAP number is cross-referenced on the checklists. After a degraded condition was identified to be a PASC, a determination was made whether or not physical work is required to correct the condition. If physical work is required, then a Work Request (WR) is submitted. Initiation of a WR automatically initiated a Condition Report (CR). The CR is automatically entered into the site's CAP for completion of the license basis evaluation, if required. If no physical work is performed, then the PASC is entered directly into the plant's CAP for completion of a licensing basis evaluation, if required. The licensee stated that all identified PASCs were determined to be in conformance with the licensing basis. Finally, the licensee stated that no new items were identified when responding to the staff's concerns and that there were no additional CAP items to report.

After evaluating the licensee's response and reviewing Tables 5-2 and 5-3 of the updated walkdown report, the NRC staff finds that the licensee responded appropriately to RAI-1, that PASCs were properly identified and documented, and summary Tables 5-2 and 5-3 are considered complete.

In addition to the information provided above, the NRC staff notes that anchorage configurations were verified to be consistent with existing plant documentation for at least 50 percent of the SWEL items in accordance with Section 4 of the walkdown guidance.

Finally, although the walkdown report does not clearly state whether the licensee opened cabinets as part of the walkdowns, the licensee clarified during the audit that cabinets were opened for internal inspections. This information was confirmed by the NRC staff after a detailed review of SWCs.

The equipment and areas that were inaccessible during the 180-day period are listed in Table E-1 of the initial walkdown report. Table E-1 was updated to show the inaccessible items still remaining after the Spring 2013 walkdowns. The list of inaccessible items also includes the condition which caused the delay of the walkdown. Based on Table E-1 of the updated report, a limited number of SWEL components (total of two) still remain inaccessible due to the energized nature of the cabinets. However, the external anchorage conditions and immediate area surrounding these components were included during the initial walkdown. The two cabinets will be opened and inspected by the fourth quarter of 2013 and the first quarter of 2014. Point Beach CRs have been written to identify and track these deferred components, and to complete the walkdowns as scheduled. Walkdown results for these items will be submitted to the NRC when all of the remaining walkdowns are complete.

Based on the information provided in the licensee's submittals, the NRC staff concludes that the licensee's implementation of the walkdown process meets the intent of the walkdown guidance.

3.2.4 Licensing Basis Evaluations and Results

Section 5, Seismic Licensing Basis Evaluations, of the walkdown guidance provides information to licensees regarding the conduct of licensing basis evaluations for items identified during the seismic walkdowns as degraded, nonconforming, or unanalyzed that might have potential seismic significance.

The NRC staff reviewed Section 6.0 of the walkdown report, which discusses the process for conducting the seismic licensing basis evaluations of the PASCs identified during the seismic walkdowns and area walk-bys. The licensee stated in the walkdown report that PASCs identified during the walkdowns were documented in the SWCs and AWCs, and entered in the CAP. Additional clarification was provided as part of the licensee's response to RAI-1. In its response to RAI-1, the licensee stated the licensing basis evaluations were performed inside the CAP and that all identified PASCs were determined to be in conformance with the licensing basis. Tables 5-2 and 5-3 in the updated walkdown report list each PASC identified during the initial seismic walkdowns and the area walk-bys, respectively. These tables describe how each condition has been addressed (e.g., placement in the CAP) and its current status.

The NRC staff reviewed the CAP entries and the description of the actions taken or planned to address potential deficiencies. The staff concludes that the licensee appropriately identified degraded, nonconforming, or unanalyzed conditions and entered them into the CAP, which meets the intent of the walkdown guidance.

3.2.5 Conclusion

Based on the discussion above, the NRC staff concludes that the licensee's implementation of seismic walkdown methodology meets the intent of the walkdown guidance for personnel qualifications, development of SWELs, implementation of the walkdown process, and seismic licensing basis evaluations.

3.3 Peer Review

Section 6, Peer Review, of the walkdown guidance provides licensees with information regarding the conduct of peer reviews for the activities performed during the seismic walkdowns. Page 6-1 of the walkdown guidance identifies the following activities to be conducted during the peer review process:

- Review the selection of the SSCs included on the SWELs
- Review a sample of the checklists prepared for the seismic walkdowns and area walk-bys
- Review the licensing basis evaluations
- Review the decisions for entering the potentially adverse conditions into the CAP
- Review the walkdown report
- Summarize the results of the peer review process in the walkdown report

The NRC staff reviewed the information provided in Appendix F of the walkdown report which describes the conduct of the peer review. In addition, the staff reviewed the response to RAI-2. In RAI-2, the staff requested the licensee to provide additional information on the overall peer review process that was followed as part of the walkdown activities. Specifically, the staff requested the licensee to confirm that the activities identified on page 6-1 of the walkdown guidance were assessed and documented in the report. The licensee was also requested to confirm that any individual involved in performing any given walkdown activity was not a peer reviewer for that same activity. In response to RAI-2, the licensee confirmed that all the activities identified on page 6-1 of the walkdown guidance were included as part of the peer review process and referred to the summary of the peer review activities provided in the peer review report in Appendix F of the walkdown report. In addition, the licensee provided additional information on the level of involvement of the peer review team and its leaders in order to further demonstrate the independence of the peer review process.

The NRC staff reviewed the licensee's summary of each of these activities, which included the peer review team members' level of involvement, the peer review findings, and resolution of peer review comments. After reviewing the licensee's submittals, the NRC staff concludes that the licensee sufficiently documented the results of the peer review activities and how these reviews affected the work described in the walkdown report.

Based on the discussion above, the NRC staff concludes that the licensee's results of the peer review and subsequent actions taken in response to the peer review meets the intent of Section 6 of the walkdown guidance.

3.4 IPEEE Information

Section 7, IPEEE Vulnerabilities, of the walkdown guidance provides information to licensees regarding the reporting of the evaluations conducted and actions taken in response to seismic vulnerabilities identified during the IPEEE program. Through the IPEEE program and Generic Letter 88-20, "Individual Plant Examination of External Events for Severe Accident Vulnerabilities," licensees previously performed a systematic examination to identify any plant-specific vulnerabilities to severe accidents.

The NRC staff reviewed Section 7.0 of the walkdown report which states that several plant improvements were made in response to seismic assessments in the IPEEE and Unresolved Safety Issue (USI) A-46 walkdowns. Table 3 of Appendix B of the updated walkdown report includes a list of the outlier and their resolutions. All identified IPEEE vulnerabilities have been resolved.

Based on the NRC staff's review of Section 7.0 of the walkdown report, the staff concludes that the licensee's identification of plant-specific vulnerabilities (including anomalies, outliers and other findings) identified by the IPEEE program, as well as actions taken to eliminate or reduce them, meets the intent of Section 7 of the walkdown guidance.

3.5 Planned Upgrades

The licensee did not identify any planned or newly installed protection and mitigation features in the walkdown report.

3.6 NRC Oversight

3.6.1 Independent Verification by Resident Inspectors

On July 6, 2012,¹⁰ the NRC issued Temporary Instruction (TI) 2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns." In accordance with the TI, NRC inspectors independently verified that the NextEra implemented the seismic walkdowns in accordance with the walkdown guidance. Additionally, the inspectors independently performed walkdowns of a sample of seismic protection features. The inspection reports dated February 7, 2013,¹¹ and May 13, 2013,¹² document the results of this inspection and state that no findings were identified.

3.6.2 NRC Staff Site Audit

The NRC staff performed an audit of Point Beach, Unit 1, during the week of June 17-20, 2013. During the audit, the staff gained a better understanding of the process used by the licensee to perform its walkdowns. The staff identified and conveyed to the licensee the specific issues to be addressed, and the licensee subsequently submitted an updated walkdown report. The NRC

¹⁰ ADAMS Accession No. ML12156A052

¹¹ ADAMS Accession No. ML13042A051

¹² ADAMS Accession No. ML13133A356

staff also noted that the licensee addressed several self-identified issues in the revised walkdown report. The audit report dated November 25, 2013, 13 provides the results of this audit.

4.0 <u>INACCESSIBLE ITEMS</u>

Equipment and areas of the plant that were inaccessible during the 180-day period are listed in Table E-1 of the initial walkdown report. Table E-1 was updated as part of the October 3, 2013, walkdown report to describe those inaccessible items still remaining after the Spring 2013 walkdowns. The list of inaccessible items also includes the condition which caused the delay of the walkdown. Based on Table E-1 of the updated report, two cabinets remain to be opened due to the energized nature of the cabinets. However, the external anchorage conditions and immediate area surrounding these cabinets were included during the initial walkdown. The two cabinets will be opened and inspected by the fourth quarter of 2013 and first quarter of 2014. The licensee stated that the results of these walkdowns will be provided after all the walkdowns for both units are completed.

The NRC staff finds that the inaccessible equipment list was developed consistent with the walkdown guidance. The schedule for completion is consistent with the time to the next scheduled outage.

5.0 CONCLUSION

The NRC staff concludes that the licensee's implementation of seismic walkdown methodology meets the intent of the walkdown guidance. The staff concludes that, through the implementation of the walkdown guidance activities and, in accordance with plant processes and procedures, the licensee verified the plant configuration with the current seismic licensing basis; addressed degraded, nonconforming, or unanalyzed seismic conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the NRC staff notes that no immediate safety concerns were identified. The staff acknowledges that the licensee provided an acceptable schedule to provide the results of walkdown activities reported in Appendix E of the updated walkdown report when all of the remaining walkdowns are complete for both units – no later than the first quarter of 2014. The NRC staff's review determined that sufficient information was provided to be responsive to Enclosure 3 of the 50.54(f) letter.

¹³ ADAMS Accession No. ML13312A911

If you have any questions, please contact me at 301-415-3049 or by e-mail at Terry.Beltz@nrc.gov.

Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager Plant Licensing Branch III-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-266, 50-301

Enclosures:

- 1. Staff Assessment of Seismic Walkdown Report (Unit 1)
- 2. Staff Assessment of Seismic Walkdown Report (Unit 2)

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC RidsOgcMailCenter Resource LPL3-1 R/F RidsOpaMail Resource RidsNroDsea RidsNrrLAMHenderson Resource RidsNrrDorl Resource RidsNrrPMPointBeach Resource LRegner, NRR NChokshi, NRO

JLD/PMB/PM

NDiFrancesco

03/31/14

DJackson, NRO RKaras, NRO MJardaneh, NRO NDiFrancesco, NRR RidsRgn3MailCenter Resource BRini, EDO RI, RII, RIII, RIV RidsAcrsAcnw MailCTR Resource RidsNrrDorlLpl3-1 Resource

SFlanders, NRO FVega, NRO ZXi, NRO

ADAMS Accession No.: ML14072A253

OFFICE | LPL3-1/PM

TBeltz

03/31/14

NAME

DATE

DSEA/RGS2	LPL3-1/BC	LPL3-1/PM
DJackson *	RCarlson	TBeltz
03/12/14	04/8/14	04/11/14

* concurrence by e-mail

OFFICIAL RECORD COPY

LPL3-1/LA

03/28/14

MHenderson