



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001**

August 10, 2017

The Operating Boiling-Water Reactor
Mark I and Mark II Licensees on
the Enclosed List

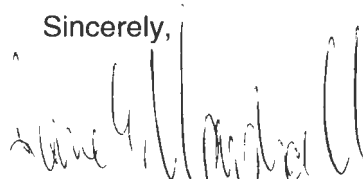
**SUBJECT: NUCLEAR REGULATORY COMMISSION AUDITS OF LICENSEE RESPONSES
TO PHASE 2 OF ORDER EA-13-109 TO MODIFY LICENSES WITH REGARD
TO RELIABLE HARDENED CONTAINMENT VENTS CAPABLE OF OPERATION
UNDER SEVERE ACCIDENT CONDITIONS**

The U.S. Nuclear Regulatory Commission (NRC) staff will perform a review of licensee responses to Phase 2 (severe accident capable drywell venting system or reliable alternative) of Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13143A334). The NRC staff will complete the ongoing review by conducting audits of pertinent additional information, which will typically include documents, calculations and drawings referenced in the respective plant submittals. This audit activity will focus and streamline obtaining information needed to conduct the Order EA-13-109 Phase 2 reviews by using the ePortal system previously set up by licensees. This audit activity may also be performed concurrent with ongoing Phase I audits (ADAMS Accession No. ML14126A545). Audits of licensee's responses will be performed in accordance with NRC Office of Nuclear Reactor Regulation Office Instruction LIC-111, "Regulatory Audits" (ADAMS Accession No. ML082900195). Enclosure 2 to this document provides the associated audit plan for this activity.

As part of the audit process, NRC staff members will contact licensees to discuss topics relevant to the existing docketed submittals, as well as information that may be contained in the ePortal system. The NRC staff considers licensee participation in the audit process for the Order EA-13-109 Phase 2 review to be voluntary. For those licensees who do not wish to participate in the audit process, the NRC staff will request the information needed to support the Order EA-13-109 Phase 2 review by an alternate mechanism.

If you have any questions about this matter, please contact Raj Auluck at (301) 415-1025 or Rajender.Auluck@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jane E. Marshall". The signature is written in a cursive style with a large, prominent "M" at the end.

Jane E. Marshall, Director

Japan Lessons-Learned Division

Office of Nuclear Reactor Regulation

Enclosures:

1. List of Boiling-Water Reactor Mark I and Mark II Operating Reactor Licensees
2. Audit Plan

cc w/encl: Distribution via listserv
NEI

OPERATING BOILING-WATER REACTOR LICENSEES WITH MARK I AND MARK II
CONTAINMENTS

Browns Ferry Nuclear Plant

Tennessee Valley Authority
Docket Nos. 50-259, 50-260 and 50-296
License Nos. DPR-33, DPR-52 and DPR-68

Mr. Joseph W. Shea
Vice President, Nuclear Regulatory Affairs
and Support Services
Tennessee Valley Authority
1101 Market Street, LP 3D-C
Chattanooga, TN 37402-2801

Brunswick Steam Electric Plant

Duke Energy Progress, LLC
Docket Nos. 50-325 and 50-324
License Nos. DPR-71 and DPR-62

Mr. William R. Giddeon
Site Vice President
Brunswick Steam Electric Plant
8470 River Rd. SE (M/C BNP001)
Southport, NC 28461

Columbia Generating Station

Energy Northwest
Docket No. 50-397
License No. NPF-21

Mr. Mark E. Reddemann
Chief Executive Officer
Energy Northwest
MD 1023
North Power Plant Loop
P.O. Box 968
Richland, WA 99352

Cooper Nuclear Station

Nebraska Public Power District
Docket No. 50-298
License No. DPR-46

Mr. John Dent, Jr.
Vice President-Nuclear and CNO
Nebraska Public Power District
Cooper Nuclear Station
72676 648A Avenue
P.O. Box 98
Brownville, NE 68321

Dresden Nuclear Power Station

Exelon Generation Company, LLC
Docket Nos. 50-237 and 50-249
License Nos. DPR-19 and DPR-25

Mr. Bryan C. Hanson
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Exelon Generation Company, LLC
President and Chief Nuclear Office (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

Duane Arnold Energy Center

NextEra Energy Duane Arnold, LLC
Docket No. 50-331
License No. DPR-49

Mr. Dean Curtlan
Site Director
NextEra Energy
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324-9785

Edwin I. Hatch Nuclear Plant

Southern Nuclear Operating Co., Inc.
Docket Nos. 50-321 and 50-366
License Nos. DPR-57 and NPF-5

Mr. James J. Hutto
Regulatory Affairs Director
Southern Nuclear Operating Co., Inc.
P.O. Box 1295, BIN 038
Birmingham, AL 35201-1295

Fermi

DTE Electric Co.
Docket No. 50-341
License No. NPF-43

Mr. Paul Fessler, Senior Vice President
and Chief Nuclear Officer
DTE Electric Company
Fermi 2 – 210 NOC
6400 North Dixie Highway
Newport, MI 48166

Hope Creek Generating Station

PSEG Nuclear, LLC
Docket No. 50-354
License No. NPF-57

Mr. Peter P. Sena, III
President and Chief Nuclear Officer
PSEG Nuclear LLC - N09
P. O. Box 236
Hancocks Bridge, NJ 08038

James A. FitzPatrick Nuclear Power Plant

Exelon Generation Company, LLC
Docket No. 50-333
License No. DPR-59

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LaSalle County Station

Exelon Generation Co., LLC
Docket Nos. 50-373 and 50-374
License Nos. NPF-11 and NPF-18

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Limerick Generating Station

Exelon Generation Co., LLC
Docket Nos. 50-352 and 50-353
License Nos. NPF-39 and NPF-85

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Monticello Nuclear Generating Plant

Northern States Power Company -
Minnesota
Docket No. 50-263
License No. DPR-22

Mr. Peter A. Gardner
Site Vice President
Northern States Power Company –
Minnesota
Monticello Nuclear Generating Plant
2807 West County Road 75
Monticello, MN 55362-9637

Nine Mile Point Nuclear Station

Nine Mile Point Nuclear Station, LLC
Docket Nos. 50-220 and 50-410
License Nos. DPR-63 and NPF-69

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Peach Bottom Atomic Power Station

Exelon Generation Co., LLC
Docket Nos. 50-277 and 50-278
License Nos. DPR-44 and DPR-56

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Quad Cities Nuclear Power Station

Exelon Generation Co., LLC
Docket Nos. 50-254 and 50-265
License Nos. DPR-29 and DPR-30

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Susquehanna Steam Electric Station

Susquehanna Nuclear, LLC
Docket Nos. 50-387 and 50-388
License Nos. NPF-14 and NPF-22

Mr. Brad Berryman
Site Vice President
Susquehanna Nuclear, LLC
769 Salem Boulevard
NUCSB3
Berwick, PA 18603-0467

Enclosure 2
Audit Plan

NRC OFFICE OF NUCLEAR REACTOR REGULATION

AUDIT PLAN TO REVIEW PHASE 2 LICENSEE SUBMITTALS IN RESPONSE TO ORDER
EA-13-109 "ISSUANCE OF ORDER TO MODIFY LICENSES WITH REGARD TO RELIABLE
HARDENED CONTAINMENT VENTS CAPABLE OF OPERATION UNDER SEVERE
ACCIDENT CONDITIONS"

BACKGROUND

On June 6, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13143A334), the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions", to all Boiling Water Reactor (BWR) licensees with Mark I and Mark II primary containments. Order EA-13-109 rescinds the requirements imposed by Order EA-12-050 "Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents" (ADAMS Accession No. ML12054A694) and replaces them with the requirements contained in Order EA-13-109. Licensees are no longer expected to comply with the requirements of Order EA-12-050, including applicable schedule deadlines for additional submittals or implementation. Likewise, the NRC staff does not plan to issue safety evaluations related to the integrated plans submitted in accordance with Order EA-12-050 or take any additional actions related to that order.

Phase 2 of Order EA-13-109 requires license holders of BWRs with Mark I and Mark II primary containments to design and install a venting system that provides venting capability from the drywell under severe accident conditions, or, alternatively, those licensees shall develop and implement a reliable containment venting strategy that makes it unlikely that a licensee would need to vent from the containment drywell during severe accident conditions. The order required all applicable licensees, by December 31, 2015, to submit to the Commission for review an overall integrated plan (OIP) including a description of how compliance with the Phase 2 requirements described in Order EA-13-109 Attachment 2 will be achieved.

The NRC staff will conduct audits of licensee OIP submittals per NRC Office of Nuclear Reactor Regulation Office Instruction LIC-111, "Regulatory Audits" (ADAMS Accession No. ML082900195). This audit activity will promote the ability of the NRC staff to focus and streamline obtaining the information needed to conduct the Order EA-13-109 Phase 2 reviews by utilizing the ePortal system previously set up by licensees. If necessary, onsite audits will be conducted. In conducting these audits, the NRC staff gains a better understanding of submitted information, identifies additional information necessary for the licensee to supplement its plan, and identifies any staff potential concerns. The ongoing audit process allows the staff to assess whether it has enough information to make an Integrated Plan safety evaluation.

AUDIT BASIS

The NRC staff will review the information contained in licensee's submittals in response to Phase 2 of Commission Order EA-13-109 dated June 6, 2013, modifying licenses with regard to requirements Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions order.

The Nuclear Energy Institute (NEI) developed "Industry Guidance for Compliance with Order EA-13-109," NEI 13-02, Revision 1, dated April 23, 2015 (ADAMS Accession No. ML15113B318). The methodologies described in this guide were endorsed, with exceptions and clarifications, by NRC Japan Lessons-Learned (JLD) interim staff guidance (ISG) JLD-ISG-2015-01 "Compliance with Phase 2 of Order EA-13-109, 'Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions'" (ADAMS Accession No. ML15104A118) as providing one acceptable means of meeting the order requirements. Other methods that deviate from the guidance may be found acceptable, but will require additional staff review and attention.

AUDIT PURPOSE AND SCOPE

The audit's purpose and scope is to review the OIP, 6-month status reports and supporting information via the ePortal, and/or onsite audit visits. The purpose of the audit is to obtain and review information responsive to NRC staff questions, and to observe and gain a better understanding of the basis for the site's overall strategy to ensure the licensee is on the correct path for compliance with the Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions order.

INFORMATION NECESSARY FOR THE AUDIT AND PROCESS

The NRC staff will review the information contained in licensees' Phase 2 OIPs in response to Order EA-13-109 and the information provided via this audit review process using the respective licensee ePortals in-office and/or from onsite audit visits.

STAFF ASSIGNMENTS

Staff in the Office of Nuclear Reactor Regulation will perform this audit.

LOGISTICS

Continuing Review and Development of Further Questions:

The submitted OIPs will be reviewed in batches by NRC staff. Priority is determined by when a plant needs to be in compliance with Phase 2 of Order EA-13-109. During these reviews, staff will develop questions to better understand how a licensee plans to fully comply with the order.

These questions will be provided by e-mail to licensees. Because these questions may not be fully reflective of information that is necessary for the staff to make a determination regarding the OIPs, they should be considered pre-decisional.

Teleconferences with Licensees

Audit questions will be discussed in telephone conferences with licensees, supported by management and staff from the Office of Nuclear Reactor Regulation. The purpose of these calls is for the NRC staff and the licensees to have a common understanding of the issue raised by the reviewers. Many of the issues are complex, and the goal is to ensure that the NRC staff understands what the licensee submitted, and, if necessary, for the licensee to understand what supplemental information may be necessary to explain how the requirements of the order are met.

Subsequently, licensees should provide the NRC with the necessary supplemental information that was agreed upon during the teleconference. To facilitate the audit schedule, this information should be provided to the NRC via the ePortal.

Periodic Updates

Due to the iterative and ongoing nature of the development of the licensee OIPs, the NRC staff evaluation of these plans will be based on the information available at the time of review. This will include information contained in the ePortals, information submitted under oath or affirmation as part of the formal periodic status report updates required by the order or as a supplement to the licensee's OIP.

DELIVERABLES

The staff will consider the information reviewed during the audit as part of its overall review of licensees OIPs. The staff's evaluations and audit reports will be issued in batches to support licensees' compliance schedules.

The NRC plans to hold public meetings to discuss the results of the staff's reviews.

REFERENCES

- U.S. Nuclear Regulatory Commission, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Order EA-13-109, June 6, 2013 (ADAMS Accession No. ML13130A067)
- Nuclear Energy Institute, "Industry Guidance for Compliance with Order EA-13-109," NEI 13-02, Revision 1, April 23, 2015, Washington, DC (ADAMS Accession No. ML15113B318)
- JLD-ISG-2013-02 "Compliance with Order EA-13-109, 'Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions,'" November 14, 2013 (ADAMS Accession No. ML13304B836)
- JLD-ISG-2015-01 "Compliance with Phase 2 of Order EA-13-109, Severe Accident Reliable Hardened Containment Vents," April 29, 2015 (ADAMS Accession No. ML15104A118)
- HCVS Phase 1 and 2 OIP Template, September 28, 2015 (ADAMS Accession No. ML15273A141)
- Individual licensee submittals in response to Phase 2 of NRC Order EA-13-109

NUCLEAR REGULATORY COMMISSION AUDITS OF LICENSEE RESPONSES TO PHASE 2 OF ORDER EA-13-109 TO MODIFY LICENSES WITH REGARD TO RELIABLE HARDENED CONTAINMENT VENTS CAPABLE OF OPERATION UNDER SEVERE ACCIDENT CONDITIONS DATED AUGUST 10, 2017

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ADAMS Accession No.: ML17220A328

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