

March 12, 2012

EA-12-050

All Operating Boiling-Water Reactor
Licensees with Mark I and
Mark II Containments

**SUBJECT: ISSUANCE OF ORDER TO MODIFY LICENSES WITH REGARD TO RELIABLE
HARDENED CONTAINMENT VENTS**

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Order modifying the current license for your facility. The Order requires that all licensees listed in Attachment 1 to the Order implement requirements for reliable hardened containment vents at their facilities.

Following the earthquake and tsunami at the Fukushima Dai-ichi nuclear power plant in March 2011, the NRC established a senior-level task force referred to as the Near-Term Task Force (NTTF). The NTTF conducted a systematic and methodical review of the NRC regulations and processes to determine if the agency should make safety improvements in light of the events in Japan. As a result of this review, the NTTF issued SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," (Agencywide Documents Access and Management System (ADAMS) Accession No. ML11186A950). SECY-11-0124, "Recommended Actions to be Taken Without Delay from the Near-Term Task Force Report," (ADAMS Accession No. ML112911571) and SECY-11-0137, "Prioritization of Recommended Actions to be Taken in Response to Fukushima Lessons Learned," (ADAMS Accession No. ML11272A111), were issued to establish the NRC staff's prioritization of the recommendations. Recommendation 5.1 concerning reliable hardened vents was determined to be a high-priority action. This Order is based upon the NTTF recommendation.

The events at Fukushima Dai-ichi highlight the possibility that extreme natural phenomena could challenge the prevention, mitigation and emergency preparedness defense-in-depth layers. At Fukushima, a variety of challenges, some of which are not yet clearly known, significantly challenged attempts by the responders to preclude core damage and containment failure. One item that is known is that, under that particular set of circumstances, the operators were unable to successfully operate the containment venting system early in the event. The inability to reduce containment pressure inhibited efforts to cool the reactor core. If additional backup or alternate sources of power had been available to operate the containment venting system remotely, or if certain valves had been more accessible for manual operation, the operators at Fukushima may have been able to depressurize the containment earlier. This, in turn, could have allowed operators to implement strategies using low-pressure water sources that may have limited or prevented damage to the reactor core. Thus, the events at Fukushima demonstrate that reliable hardened vents at boiling-water reactors facilities with Mark I and Mark II containment designs are important to maintain core and containment cooling.

The NRC staff has determined that continued operation does not pose an imminent risk to public health and safety; however, the additional requirements outlined in this Order are necessary in light of insights gained from the events at Fukushima Dai-ichi. The requirements of this Order are immediately effective and are expected to remain in place until superseded by Order or rule.

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Pursuant to Section 223 of the Atomic Energy Act of 1954, as amended, any person who willfully violates, attempts to violate, or conspires to violate, any provision of this Order shall be subject to criminal prosecution as set forth in that section. Violation of this order may also subject the person to civil monetary penalty.

The enclosed Order requires responses and actions within specified timeframes. Please contact your Licensing Project Manager or Mr. Robert Fretz, Reliable Hardened Vents Order Project Manager (301-415-1980), regarding any issues related to compliance with the requirements in the enclosed Order, or if you have other questions.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>). The enclosed Order has been forwarded to the Office of the *Federal Register* for publication.

Sincerely,

/ra/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Enclosure:
Order (EA-12-050)

cc: Listserv

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Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

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Distribution: See next page

ADAMS Accession No.: ML12054A694

*e-mail concurrence

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Enclosure