



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

June 10, 2014

Mr. David A. Heacock
President and Chief Nuclear Officer
Dominion Energy Kewaunee, Inc.
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION - RESCISSION OF ORDER EA-12-049, "ORDER MODIFYING LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND DESIGN BASIS EXTERNAL EVENTS" (TAC NO. MF2774)

Dear Mr. Heacock:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12054A735), the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-049 to Dominion Energy Kewaunee, Inc. (DEK or the licensee), requiring certain actions at Kewaunee Power Station (KPS) associated with the Fukushima Near-Term Task Force Recommendations. Order EA-12-049 directs licensees to develop and implement strategies to maintain or restore core cooling, containment cooling, and spent fuel pool (SFP) cooling capabilities during beyond-design-basis external events.

Section IV of Order EA-12-049 requires that DEK submit an overall integrated plan by February 28, 2013, describing how KPS planned to achieve compliance with the requirements of the Order. DEK responded to the Order by letters dated March 26, 2012, October 25, 2012, and February 28, 2013 (ADAMS Accession Nos. ML12089A031, ML12306A446, and ML13063A149, respectively).

Section IV of the Order provides the NRC's Director of the Office of Nuclear Reactor Regulation the authority to relax or rescind any or all of the conditions of the Order upon demonstration by the licensee of good cause.

By letter dated February 25, 2013 (ADAMS Accession No. ML13058A065), DEK submitted a certification to the NRC indicating it would permanently cease power operations at KPS on May 7, 2013. On May 7, 2013, DEK permanently ceased power operation at KPS. On May 14, 2013 (ADAMS Accession No. ML13135A209), DEK certified that it had permanently defueled the KPS reactor vessel.

On August 23, 2013 (ADAMS Accession No. ML13242A019), DEK requested rescission of Order EA-12-049 for KPS based on the permanently shutdown and defueled condition of the reactor. In this letter DEK provided the following information to demonstrate good cause for the rescission of Order EA-12-049:

- The safety functions of the core cooling and containment are not required since the fuel will have been permanently removed from the reactor vessel by the full implementation date of the Order.

- The KPS SFP will take more than 120 hours to reach the point of boiling 17 months after shutdown. The relative low decay heat load in the KPS SFP provides adequate time after an unanticipated event for responders to restore and maintain SFP cooling and level. DEK has also committed to enhance existing strategies related to SFP makeup.
- DEK's analyses of the consequences of unanticipated beyond design basis events related to the storage of spent fuel in the SFP indicate that within 17 months after shutdown, the analyzed event is either not credible, can be mitigated against, or the event's radiological consequences will not exceed the Environmental Protection Agency's Protective Action Guides. Kewaunee shutdown on May 7, 2013, thus 17 months later occurs before the requirements of the Order must be implemented.

The NRC staff concludes that the lack of fuel in the core and the absence of challenges to the containment render the development of guidance and strategies to maintain or restore core cooling and containment capabilities unnecessary.

The staff determined, using information supplied in the August 23, 2013 request, that the time to boil off water inventory in the SFP to a level of 10 feet above the spent fuel (assuming 17 months after permanent shutdown) is more than 18 days. The NRC staff concludes that 17 months after permanent shutdown, given the low decay heat levels and the long time to boil off, the reliance on the SFP inventory for passive cooling provides an equivalent level of protection as that which would be provided by the initial phase of the guidance and strategies for maintaining or restoring SFP cooling capabilities that would be necessary for compliance with Order EA-12-049 using installed equipment. The staff further concludes that the long time to boil off the SFP inventory to a point at which makeup would be necessary for radiation shielding purposes obviates the need for the transition phase of the guidance and strategies that would be necessary for compliance with Order EA-12-049 using on-site portable equipment. The staff also concludes that the low decay heat and long boil-off period provides sufficient time for the licensee to obtain off-site resources on an ad hoc basis to sustain the SFP cooling function indefinitely, obviating the need for the final phase of the guidance and strategies that would be necessary for compliance with Order EA-12-049.

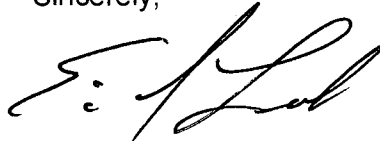
Therefore, for the reasons discussed above, the NRC staff concludes that good cause has been demonstrated to rescind the requirements of Order EA-12-049 for KPS. All other regulatory requirements for which rescission was not specifically requested remain applicable and are not

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impacted by rescission of this Order. Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, Order EA-12-049 is rescinded in its entirety for KPS.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric J. Leeds". The signature is fluid and cursive, with a large initial "E" and "L".

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Docket No. 50-305

cc: ListServ

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impacted by rescission of this Order. Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, Order EA-12-049 is rescinded in its entirety for KPS.

Sincerely,

/RA/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Docket No. 50-305

cc: ListServ

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ADAMS Accession No. ML14059A411

*via email

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