



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

July 2, 2019

Mr. Brian R. Sullivan
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION - RESCISSION OF INTERIM COMPENSATORY MEASURE B.1.a IN EA-02-026, "ORDER FOR INTERIM SAFEGUARDS AND SECURITY COMPENSATORY MEASURES," AND RESCISSION OF EA-06-137, "ORDER REQUIRING COMPLIANCE WITH KEY RADIOLOGICAL MITIGATION STRATEGIES" (EPID L-2018-LLL-0030)

Dear Mr. Sullivan:

By letter dated February 25, 2002 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML020490027), the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" to all operating nuclear power reactor licensees. Following the terrorist attacks on September 11, 2001, the NRC supplemented the security measures required for protection against the design-basis threat at nuclear power reactor facilities through a series of security orders. These orders, including Order EA-02-026, established new requirements for specific training; access authorization enhancements; and enhancements to defensive strategies, mitigative measures, and integrated response.

The NRC amended Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities"; 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants"; 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste"; 10 CFR Part 73, "Physical Protection of Plants and Materials"; and Appendix B, "General Criteria for Security Personnel," and Appendix C, "Licensee Safeguards Contingency Plans," to 10 CFR Part 73, through a final rule, titled "Power Reactor Security Requirements," which the agency published in Volume 74 of the *Federal Register*, page 13925, on March 27, 2009 (74 FR 13925). The rulemaking codified generically applicable security requirements that the agency previously issued by orders and updated the existing power reactor security requirements. The rule became effective on May 26, 2009.

By letter dated November 28, 2011 (ADAMS Accession No. ML111220447), the NRC partially rescinded Order EA-02-026. The requirements of Order EA-02-026 addressed by Interim Compensatory Measure (ICM) B.1.a involved operator training for specific security-initiated events that were not covered by proposed or existing regulations and remained in effect.

By letter dated June 20, 2006 (ADAMS Accession No. ML061600023), the NRC issued Order EA-06-137, "Order Requiring Compliance with Key Radiological Protection Mitigation

Strategies,” to various operating nuclear power reactor licensees, including Pilgrim Nuclear Power Station (Pilgrim). It required those licensees to implement certain key radiological protection mitigation strategies for the purpose of allaying the effects of a loss-of-coolant accident for the reactor vessel.

By letter dated November 10, 2015 (ADAMS Accession No. ML15328A053), Entergy Nuclear Operations, Inc. (Entergy or the licensee), submitted a notification of permanent cessation of power operations for Pilgrim. In this letter, Entergy notified the NRC of its intent to permanently cease operations at Pilgrim no later than June 1, 2019. In addition, Entergy indicated its intent to supplement the letter certifying the date on which operations have ceased, or will cease, in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.4(b)(8).

Section III of Order EA-02-026 and Section III of Order EA-06-137 give the Director of the NRC Office of Nuclear Reactor Regulation the authority to relax or rescind any or all of the conditions of the orders upon demonstration by the licensee of good cause.

In a letter dated October 31, 2018 (ADAMS Accession No. ML18309A036), Entergy requested that the NRC rescind ICM B.1.a in Order EA-02-026 and rescind Order EA-06-137 in its entirety for Pilgrim based on its transition from an operating reactor to a nonoperating reactor. Entergy cited the following reasons to demonstrate good cause for rescinding ICM B.1.a in Order EA-02-026 and Order EA-06-137:

- Pilgrim will permanently cease power operations no later than June 1, 2019, and the plant will have no further refueling outages or startups. Upon docketing of the 10 CFR 50.82(a)(1)(i) and (ii) certifications, the 10 CFR Part 50 license will no longer authorize operation of the reactor or retention of fuel in the reactor vessel. As a result, there is no longer a need to address the specific security-initiated event in ICM B.1.a in Order EA-02-026, which is primarily associated with reactor operation.
- Once Pilgrim has been permanently defueled and the certifications required by 10 CFR 50.82(a)(1)(i) and (ii) have been submitted, the 10 CFR Part 50 license will no longer authorize operation of the reactor or retention of fuel in the reactor vessel. After this occurs, a loss-of-coolant accident will no longer be possible, and the primary containment has no design function. Therefore, Order EA-06-137 does not apply because core damage will no longer be a concern.

By letter dated June 10, 2019 (ADAMS Accession No. ML19161A033), Entergy certified that power operations ceased at Pilgrim on May 31, 2019, and that the fuel was permanently removed from the Pilgrim reactor vessel and placed in the spent fuel pool on June 9, 2019. Entergy further acknowledged that the Pilgrim 10 CFR Part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel.

The NRC staff notes that since Pilgrim is permanently shut down and defueled, the primary security focus is the protection of the spent fuel. The specific security-initiated event addressed in ICM B.1.a in Order EA-02-026 does not have any immediate effect on the storage or cooling of spent fuel.

In addition, the NRC staff recognizes that Pilgrim will maintain mitigation strategies for the protection of spent fuel under License Condition 3.K of its license. License Condition 3.K requires Pilgrim to develop and maintain strategies and staff training to address large fires and explosions, including for protection of the spent fuel. The NRC staff has determined that

rescinding ICM B.1.a in Order EA-02-026 will not reduce the capability of the licensee to mitigate any consequences from the specific security-initiated event described in Order EA-02-026, even in the unlikely case that the event could have some effect on the systems used for storage and cooling of spent fuel. The operations staff will continue to receive training on mitigation strategies related to the protection of spent fuel.

The NRC staff has determined that Order EA-06-137, which requires compliance with key radiological mitigating strategies at Pilgrim, will no longer be necessary because core damage will not be possible once all fuel is removed from the reactor vessel. Therefore, the requirements to maintain procedures and training in accordance with Order EA-06-137 do not apply.

For the reasons discussed above, the NRC staff concludes that the licensee has demonstrated good cause to rescind ICM B.1.a in Order EA-02-026 and to rescind Order EA-06-137 in its entirety. Therefore, in light of the docketing of the 10 CFR 50.82(a)(1)(i) and (ii) certifications for permanent cessation of operations and removal of fuel from the reactor vessel, the NRC rescinds ICM B.1.a in Order EA-02-026 and rescinds Order EA-06-137 in its entirety for Pilgrim.

Sincerely,

/RA Michele G. Evans for/

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Docket No. 50-293

cc: Listserv

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