

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

August 19, 2014

Site Vice President
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
P.O. Box 250
Governor Hunt Road
Vernon, VT 05354

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION - REQUEST FOR
ADDITIONAL INFORMATION REGARDING EXEMPTION FROM THE
REQUIREMENTS OF 10 CFR 50.47 AND APPENDIX E (TAC NO. MF3614)

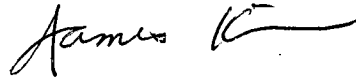
Dear Sir or Madam:

By letter dated March 14, 2014, Entergy Nuclear Operations, Inc. (ENO) requested exemptions from portions of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50) for the Vermont Yankee Nuclear Power Station (VY) Radiological Emergency Response Plan. Specifically, ENO requested an exemption from certain emergency plan requirements of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and Section IV to Appendix E of 10 CFR 50. The requested exemptions would allow ENO to reduce emergency plan requirements and subsequently revise the VY Radiological Emergency Response Plan consistent with the permanently defueled condition of the reactor.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing the exemption and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). Based on our discussions, we understand that a response to the RAI will be provided by August 29, 2014.

If you have any questions regarding this letter, please feel free to contact me at (301) 415-4125 or via e-mail at james.kim@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "James Kim", with a stylized flourish at the end.

James Kim, Project Manager
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:
Request for Additional Information

cc w/enclosure: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

EXEMPTION FROM THE REQUIREMENTS OF 10 CFR 50.47 AND APPENDIX E

ENTERGY NUCLEAR OPERATIONS, INC.

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

By letter dated March 14, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14080A141), Entergy Nuclear Operations, Inc. (ENO), requested exemptions from portions of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50) for the Vermont Yankee Nuclear Power Station (VY) Radiological Emergency Response Plan. Specifically, ENO requested an exemption from certain emergency plan requirements of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and Section IV to Appendix E of 10 CFR 50. The requested exemptions would allow ENO to reduce emergency plan requirements and subsequently revise the VY Radiological Emergency Response Plan consistent with the permanently defueled condition of the reactor.

By letter dated September 23, 2013 (Accession No. ML13273A204), ENO submitted certification to the U.S. Nuclear Regulatory Commission (NRC) indicating its intention to permanently cease power operations at VY in the fourth quarter of 2014 pursuant to 10 CFR 50.82(a)(1)(i), and for the permanent removal of fuel from the reactor vessel pursuant to 10 CFR 50.82(a)(1)(ii). Upon docketing of certifications of the permanent cessation of power operations and for the permanent removal of fuel from the reactor vessel pursuant to 10 CFR 50.82(a)(1)(ii), the 10 CFR Part 50 license for VY no longer authorizes operation of the reactor, or emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2).

In reviewing the request for exemption, the NRC staff used precedents from past emergency preparedness (EP)-related decommissioning exemption reviews, including the reviews submitted for the EP rule changes published in the *Federal Register* on November 23, 2011 (76 FR 72560). The staff also informed its review with guidance and regulations applicable to an Independent Spent Fuel Storage Installation (ISFSI).

Based on the NRC staff's initial review of ENO's EP exemption request, the following requests for additional information (RAIs) are required to facilitate completion of the staff's technical review.

Note: In the following RAIs, ~~bold-strike-out~~ text indicates the requested exemption from rule language.

(MF3614) RAI-001

The basis for exemption of item 1 in Table 1 (Attachment 1) is generic and does not state specifically why VY should be considered for exemption. Similarly, the following items in

Enclosure

Table 2 in (Attachment 1) also contain only generic information in the basis for exemption: items 6, 10, 30, 34, 36, 39, 40, 77, and 97.

Please provide information specific to VY for granting the exemptions listed above.

(MF3614) RAI-002

The basis for exemption for item 1 in Table 1 (Attachment 1) does not address design basis accidents (DBAs).

Please provide a discussion justifying that no currently applicable DBA will exceed U.S. Environmental Protection Agency (EPA) Protective Action Guides.

(MF3614) RAI-003

10 CFR	Vermont Yankee Requested Wording	Revised Wording (based on past precedent)
50.47(b)(10)	A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.	A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Although formal offsite radiological emergency preparedness (REP) plans have typically been exempted for decommissioning sites, offsite organizations continue to be relied upon for firefighting, law enforcement, ambulance and medical services in support of the licensee's (onsite) emergency plan. Additionally, the licensee is responsible for control of activities in the Exclusion Area, including public access.

Please provide further justification as to why this requirement would not be applicable based on the context described above.

(MF3614) RAI-004

10 CFR	Vermont Yankee Requested Wording	Revised Wording (based on recent EP Rule Statements of Consideration (SOC))
Appendix E.IV.A.7	By June 23, 2014 identification of, and a description of the assistance expected from appropriate State local and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles or other devices used to deliver destructive force.	By June 23, 2014 identification of, and a description of the assistance expected from appropriate State local and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles or other devices used to deliver destructive force.

Although the NRC has previously exempted decommissioning reactors from "hostile action" enhancements, based on the applicability of the new EP Rule (as stated in the Statement of Considerations), some EP requirements for security-based events are maintained, such as the classification of security-based events, notification of offsite authorities and coordination for the response of offsite organizations (i.e., firefighting, medical assistance) onsite.

Please revise the requested exemption accordingly or provide further justification for exemption.

(MF3614) RAI-005

10 CFR 50	Vermont Yankee Requested Wording	Revised Wording (based on recent EP Rule SOC)
Appendix E.IV.C.2	<p>By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.</p>	<p>By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.</p>

State and local jurisdictions may take actions as part of their comprehensive emergency response (all-hazards) planning. Licensee actions shall not impede State and local authorities to respond to emergencies as they determine the need.

Please provide specific justification for exempting this requirement or restore language consistent with revised wording proposed.

(MF3614) RAI-006

10 CFR 50 Appendix E.IV.E.9.a

Provision for the communications with contiguous State/local governments ~~within the plume exposure pathway EPZ~~. Such communications shall be tested monthly.

10 CFR 50 Appendix E.IV.E.9.c

Provision for the communications among the ~~nuclear power control room, the onsite technical support center, and the emergency response facility; and among the~~ nuclear facility, the principal State and local emergency operations centers, ~~and the field assessment teams~~. Such communication systems shall be tested annually.

Exemptions to the requirements in 10 CFR 50 Appendix E.IV.E.9.a and 10 CFR 50 Appendix E.IV.E.9.c were requested as indicated above.

It appears to the NRC staff that 10 CFR 50 Appendix E.IV.E.9.c as exempted would be redundant to 10 CFR 50 Appendix E.IV.E.9.a. Please explain what different organizations would be contacted and what different communication systems would be tested for compliance with 10 CFR 50 Appendix E.IV.E.9.c as exempted, as opposed to the ones in 10 CFR 50 Appendix E.IV.E.9.a, as exempted.

(MF3614) RAI-007

10 CFR 50 Appendix E.IV.E.8.a.(i)

A licensee ~~onsite technical support center and an emergency operations~~ facility from which effective direction can be given and effective control can be exercised during an emergency.

10 CFR 50 Appendix E.IV.E.8.b

For a nuclear power reactor licensee's emergency operations facility required by **paragraph 8.a** of this section....

10 CFR 50 Appendix E.IV.E.8.c

~~By June 20, 2012, for a nuclear power reactor licensee's emergency operations facility required by paragraph 8.a of this section....~~

An exemption from the requirements in 10 CFR 50 Appendix E.IV.E.8.b was not requested as indicated above. Is it intended that this facility be subjected to the requirements of 10 CFR 50 Appendix E. Section IV.E.8.b.?

(MF3614) RAI-008

Appendix E of 10 CFR 50, Section IV.B.1 states in part, "Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis." The basis for exemption for Item 37 of Table 2 (Attachment 1) states that VY proposes to continue to review emergency action levels (EALs) with the State of Vermont on an annual basis.

Please provide basis for excluding local government authorities from the annual EAL review or revise accordingly.

(MF3614) RAI-009

Proposed exemption to Appendix E of 10 CFR 50, Section IV.D.3, under Item 43 of Table 2 (Attachment 1), states, in part, that "A licensee shall have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency." The basis for exemption states, in part, that "VY proposes to complete emergency notification within 60 minutes after an emergency declaration or a change in classification to the State of Vermont."

Please provide the local government agencies that VY proposes to notify within that 60-minute time period.

If you have any questions regarding this letter, please feel free to contact me at (301) 415-4125 or via e-mail at james.kim@nrc.gov.

Sincerely,

/RA/

James Kim, Project Manager
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosure:
Request for Additional Information

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DATE	07/11/14	07/11/14	07/08/14	08/19/14	08/19/14

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