



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
2100 RENAISSANCE BLVD.  
KING OF PRUSSIA, PA 19406-2713

June 26, 2017

EA-17-059

Mr. John W. Boyle  
Director, Nuclear Decommissioning  
Vermont Yankee Nuclear Power Station  
320 Governor Hunt Road  
Vernon, VT 05354

SUBJECT: VERMONT YANKEE – NRC INVESTIGATION REPORT NO. 1-2016-012; AND  
NOTICE OF VIOLATION

Dear Mr. Boyle:

This letter refers to an investigation by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI), conducted at Entergy Nuclear Operations, Inc.'s (Entergy's) Vermont Yankee Nuclear Power Station (VYNPS). The OI investigation, which was completed on March 31, 2017, was conducted to determine whether Entergy Radiation Protection Technicians (RPTs) at VYNPS were performing required radiation detection instrument source checks.

Based on the evidence gathered during the NRC OI investigation, the NRC has concluded that, between January and September 2016, a (now-former) senior RPT at VYNPS deliberately did not perform daily source checks of plant personnel contamination monitors (PCMs). Specifically, the NRC identified that at VYNPS, source checks of RP instruments are performed during the 12-hour night shift, which the RPTs work according to a rotating schedule. Through a review of data obtained from the hard drives of site PCMs, OI identified gaps between January 2016 and September 2016, during which the PCMs were not source-checked, even though the related documentation prepared by the on-shift RPT indicated the source checks had been performed. OI identified that the gaps directly correlated with the night shift schedule of a specific RPT. Although the RPT denied failing to conduct the source checks and falsifying the related records, the NRC determined that the evidence showed otherwise. In particular, the NRC noted that, according to the PCM records, the RPT did not perform any source checks until September 2016, shortly after OI had started conducting interviews at VYNPS about the issue. The NRC notes that Entergy initiated its own review of the matter in response to the NRC OI investigation.

The NRC concluded that the RPT's actions caused Entergy to violate a provision of the VYNPS radiation protection program, required by Title 10 of the *Code of Federal Regulations*, Section 20.1101(a). The provision, specified in Entergy's radiation protection program implementing procedure EN-RP-301, Rev 7, "Radiation Protection Instrument Control," requires the performance of daily response checks for personnel monitoring equipment.

Because licensees are responsible for the actions of their employees and because the violation involved willfulness, it was evaluated under the NRC's traditional enforcement process as set forth in Section 2.2.4 of the NRC Enforcement Policy. After careful consideration, the NRC concluded that this violation should be classified at Severity Level IV (SL IV). In reaching this determination, the NRC considered that the underlying violation was of minor safety significance since it was similar to example 6.b in NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues." Specifically, although the RPT did not perform daily source checks, this failure did not affect the calibration or overall functionality of the PCMs. The source checks verify that the PCM detectors respond to radiation within an acceptable range, to ensure general functionality. The instruments include software that automatically remove the components from service if issues with the detectors are identified. Consequently, because of the inherent capabilities of these instruments, current industry practice is to conduct PCM source checks weekly rather than daily (although VYNPS had continued with the more conservative daily schedule). The RPT never worked more than four night shifts in a row, so the PCMs did not go for more than four days without being checked. Additionally, the NRC did not identify any evidence that the PCM detectors failed to properly operate as a result of the RPT's inaction.

Although the underlying violation was minor, the NRC decided to increase the significance of the violation to SL IV since it was committed with deliberate intent, and the NRC regulatory program is based, in part, on licensees and their employees acting with integrity. In addition, after considering the factors set forth in Section 2.3.2 of the Enforcement Policy, the violation is being cited in the enclosed Notice of Violation (Notice), because the violation was not identified by Entergy.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements. In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room and from the NRC's Agency-wide Documents Access and Management 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 or proprietary, information so that it can be made available to the Public without redaction.

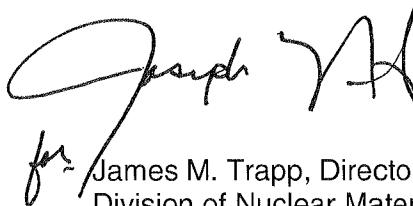
Please note that final NRC investigation documents, such as the OI report described above, may be made available to the public under the Freedom of Information Act (FOIA) subject to redaction of information appropriate under the FOIA. Requests under the FOIA should be made in accordance with 10 CFR 9.23, Requests for Records. Additional information is available on the NRC website at <http://www.nrc.gov/reading-rm/foia/foia-privacy.html>.

J. Boyle

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Should you have any questions regarding this matter, please contact Ms. Marjorie McLaughlin, Senior Enforcement Specialist in Region I, at (610) 337-5240.

Sincerely,

A handwritten signature in black ink, appearing to read "James M. Trapp". The signature is stylized and cursive.

for James M. Trapp, Director  
Division of Nuclear Materials Safety

Docket No. 50-271  
License No. DPR-28

Enclosure:  
As described

cc: Distribution via ListServ

ENCLOSURE 1  
NOTICE OF VIOLATION

Entergy Nuclear Operations, Inc.  
Vermont Yankee Nuclear Power Station

Docket No. 50-271  
License No. DPR-28  
EA-17-059

During an NRC investigation conducted between April 26, 2016, and March 31, 2017, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

10 CFR 20.1101(a) requires that each licensee develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with the provisions of Part 20.

EN-RP-301, Rev 7, "Radiation Protection Instrument Control," describes the Entergy Nuclear program to ensure that radiation and radioactivity measurement instruments are properly maintained and calibrated and response checked at appropriate frequencies. Step 5.4 [8] requires the performance of response checks within the frequency specified by Attachment 9.2. Attachment 9.2 requires a minimum response check frequency of "Daily" for personnel monitoring equipment.

Contrary to the above, on multiple occasions between January 19 and September 20, 2016, Vermont Yankee did not implement a documented radiation protection program requirement to ensure the performance of daily response checks for personnel monitoring equipment. Specifically, a Senior Radiation Protection Technician who was assigned to perform the daily response checks while working night shift, did not perform this activity.

This is a Severity Level IV violation (Enforcement Policy Section 6.7).

Pursuant to the provisions of 10 CFR 2.201, Entergy Nuclear Operations, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 2100 Renaissance Blvd., Suite 100, King of Prussia, PA 19406, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-17-059" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved.

Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room and 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, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 26<sup>th</sup> day of June 2017