



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

February 27, 2018

EA-17-143

Mr. Brian 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 – NRC INVESTIGATION REPORT  
NO. 1-2017-011 AND NOTICE OF VIOLATION

Dear Mr. Sullivan:

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) Pilgrim Nuclear Power Station (Pilgrim). The investigation, which was completed on September 1, 2017, was conducted to evaluate the circumstances related to a March 27, 2017, surveillance test (ST) on the Reactor Core Isolation Cooling (RCIC) system during which two Instruments & Controls (I&C) technicians erroneously manipulated the wrong component, causing the temporary inoperability of the High Pressure Coolant Injection (HPCI) system. As further described below, based on the evidence gathered during the NRC OI investigation, the NRC concluded that the two technicians deliberately failed to perform concurrent verifications required by the ST procedure to ensure they were manipulating the proper component.

The test (the quarterly RCIC Steam Line High Temperature ST, as described by Pilgrim procedure no. 8.M.2-2.6.3) involves installing jumpers and applying heat to switches on RCIC junction boxes. Some of the boxes were located in the Traversing In-Core Probe (TIP) Room, which is within Pilgrim's Radiologically Controlled Area (RCA) and requires protective clothing to access. OI identified that four I&C technicians were assigned to perform the ST, with two of the technicians performing the field work within the RCA and the other two conducting the activities in the Cable Spread Room (outside of the RCA). As determined by the OI investigation, the NRC identified that the technicians working within the RCA deliberately decided that only one individual would enter the TIP Room so that the other technician would not have to don the required protective clothing. As a result, the technician who remained outside the TIP Room could not see the junction boxes that the technician within the room was working on and, therefore, could not perform the required procedural step to verify the correct junction box was being tested. Consequently, neither individual identified that the technician within the TIP room inadvertently installed a jumper in a box for the HPCI system, which was in service, thereby causing the HPCI system to isolate and remain inoperable for about 35 minutes until it was restored.

The NRC concluded that the technicians' actions caused Entergy to be in violation of a condition of its NRC license as specified in the facility Technical Specifications. Specifically, the technicians did not comply with the ST procedure, which is of a type recommended by Regulatory Guide 1.33, Revision 2, Appendix A, and is required to be followed in accordance with site Technical Specifications. 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 would have been evaluated as having very low safety significance (i.e., Green) under the Reactor Oversight Process based on the impact of HPCI being inoperable for 35 minutes with RCIC out of service. Although the violation was willful, after considering the factors set forth in Section 2.2.1(d) of the NRC Enforcement Policy, the NRC decided to not increase the significance. In particular, the NRC considered that the technicians were not supervisory-level employees and they did not gain an economic or other advantage from committing the violation. The NRC also considered that the investigation did not produce evidence to support that the violation was related to a breakdown in licensee performance at a programmatic level.

In addition, after considering the factors set forth in Section 2.3.2.a of the Enforcement Policy, the violation is being cited in the enclosed Notice of Violation (Notice). In reaching this determination, the NRC considered that additional information is required regarding the remedial and other actions Entergy has taken and planned in response to this violation so as to demonstrate its seriousness to other employees and contractors and to create a deterrent effect within the site organization. In particular, the NRC is interested in information about Entergy's actions to reaffirm employee standards related to procedural adherence at Pilgrim.

Separately, based on the investigation, the NRC determined that both technicians, as well as one of the other technicians who performed the ST outside of the RCA, provided materially inaccurate and incomplete information to Entergy about this event. Specifically, the NRC identified that during Entergy's prompt investigation into this matter, these individuals did not divulge that the concurrent verification had deliberately not been performed. Although the NRC has concluded that the three technicians withheld this information deliberately, the NRC did not identify that their actions caused Entergy to be in violation of any additional NRC requirements.

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>.

This enforcement action will be administratively tracked under NRC Inspection Report No. 05000293/2018014. Should you have any questions regarding this matter, please contact Mr. Anthony Dimitriadis, Chief, Projects Branch 5, Division of Reactor Projects in Region I, at (610) 337-6953.

Sincerely,

/RA/

David L. Pelton  
Acting Director  
Division of Reactor Projects

Docket No. 50-293  
License No. DPR-35

Enclosure:  
Notice of Violation

cc w/ encl: Distribution via ListServ

SUBJECT: NRC OFFICE OF INVESTIGATIONS REPORT 1-2017-011 DATED  
FEBURARY 27, 2018

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Region I OE Files (with concurrences)

DOCUMENT NAME: S:\Enf-allg\Enforcement\Proposed-Actions\Region1\Pilgrim RCIC ST NOV-IV EA-17-  
143\_DBG\_ML18052B084 .docx ADAMS ACCESSION NUMBER: ML18052B084

X SUNSI Review/ MMM*		X Non-Sensitive □ Sensitive		X Publicly Available □ Non-Publicly Available	
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## NOTICE OF VIOLATION

Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station

Docket No. 50-293  
License No. DPR-35  
EA-17-143

During an NRC investigation conducted between April 3, 2017, and September 1, 2017, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Pilgrim Nuclear Power Station (Pilgrim) Technical Specification 5.4.1.a requires that written procedures shall be established, implemented, and maintained covering the activities recommended in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, February 1978.

RG 1.33, Revision 2, Appendix A, February 1978, Section 8.b.(2)(r) recommends procedures for surveillance tests of the Reactor Core Isolation Cooling (RCIC) system.

Pilgrim Procedure No. 8.M.2-2.6.3, "RCIC Steam Line High Temperature – Critical Maintenance," Attachment 1, describes the process for performing an instrument functional test of the high temperature steam leak detectors of the auto-isolation trip system on RCIC. Step 1 specifies that the steps for each instrument must be performed in the order they are written and that steps with a second initials line for a 'verifier' require verification with two individuals' initials to signify completion. Step 40 requires installation of a jumper in the OPEN position at switch TC-1360-14D at the local terminal box J601 and separately requires verification of this action by a second individual.

Contrary to the above, on March 27, 2017, the licensee did not properly implement a procedure for a surveillance test of the RCIC system. Specifically, the licensee staff performing the RCIC steam line high temperature surveillance test did not perform verification of installation of a jumper at the local terminal box J601. Consequently, the licensee staff did not identify that the jumper had been erroneously installed on the incorrect terminal box (J605, which is part of the high pressure coolant injection system (HPCI)). Installing the jumper on the incorrect terminal box caused the unplanned isolation of HPCI, temporarily rendering the system inoperable.

This is a Severity Level IV violation (Enforcement Policy Section 6.1).

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-17-143" 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. In particular, the NRC requests that your response include discussion of the actions being taken to evaluate employee standards related to procedural adherence.

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 27<sup>th</sup> day of February, 2018