



Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360

Peter J. Miner  
Manager, Regulatory Assurance

10 CFR 50.73

2.19.037

June 10, 2019

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: Licensee Event Report 2019-003-00, Condition Prohibited by Technical  
Specifications Involving the Mechanical Vacuum Pump

Pilgrim Nuclear Power Station  
NRC Docket No. 50-293  
Renewed Facility Operating License No. DPR-35

The enclosed Licensee Event Report 2019-003-00, Condition Prohibited by Technical  
Specifications Involving the Mechanical Vacuum Pump, is submitted in accordance with Title  
10 Code of Federal Regulations 50.73.

If you have any questions regarding this information, please contact me at  
508-830-7127.

This letter contains no new regulatory commitments.

Sincerely,

A handwritten signature in black ink, appearing to read "PJM", with a horizontal line extending from the end.

Peter J. Miner

PJM/rjm


Enclosure: Licensee Event Report 2019-003-00 Condition Prohibited by Technical  
Specifications Involving the Mechanical Vacuum Pump

cc: NRC Region I, Regional Administrator  
NRC NRR Project Manager - Pilgrim  
NRC Senior Resident Inspector - Pilgrim

**Enclosure**

2.19.037

Licensee Event Report 2019-003-00, Condition Prohibited by Technical Specifications Involving the Mechanical Vacuum Pump

<b>8NRC FORM 366</b> (04-2017)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>			<b>APPROVED BY OMB: NO. 3150-0104</b>		<b>EXPIRES: 03/31/2020</b>						
 <b>LICENSEE EVENT REPORT (LER)</b> (See Page 2 for required number of digits/characters for each block)													
(See NUREG-1022, R.3 for instruction and guidance for completing this form <a href="http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/">http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/</a> )													
<b>1. FACILITY NAME</b> Pilgrim Nuclear Power Station					<b>2. DOCKET NUMBER</b> 05000-293			<b>3. PAGE</b> 1 OF 3					
<b>4. TITLE</b> Condition Prohibited by Technical Specifications Involving the Mechanical Vacuum Pump													
<b>5. EVENT DATE</b>			<b>6. LER NUMBER</b>			<b>7. REPORT DATE</b>			<b>8. OTHER FACILITIES INVOLVED</b>				
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER			
04	13	2019	2019	- 003	- 00	06	10	2019	N/A	N/A			
									FACILITY NAME	DOCKET NUMBER			
									N/A	N/A			
<b>9. OPERATING MODE</b>		<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §:</b> (Check all that apply)											
N		<input type="checkbox"/> 20.2201(b)			<input type="checkbox"/> 20.2203(a)(3)(i)			<input type="checkbox"/> 50.73(a)(2)(ii)(A)			<input type="checkbox"/> 50.73(a)(2)(viii)(A)		
		<input type="checkbox"/> 20.2201(d)			<input type="checkbox"/> 20.2203(a)(3)(ii)			<input type="checkbox"/> 50.73(a)(2)(ii)(B)			<input type="checkbox"/> 50.73(a)(2)(viii)(B)		
		<input type="checkbox"/> 20.2203(a)(1)			<input type="checkbox"/> 20.2203(a)(4)			<input type="checkbox"/> 50.73(a)(2)(iii)			<input type="checkbox"/> 50.73(a)(2)(ix)(A)		
		<input type="checkbox"/> 20.2203(a)(2)(i)			<input type="checkbox"/> 50.36(c)(1)(i)(A)			<input type="checkbox"/> 50.73(a)(2)(iv)(A)			<input type="checkbox"/> 50.73(a)(2)(x)		
100		<input type="checkbox"/> 20.2203(a)(2)(ii)			<input type="checkbox"/> 50.36(c)(1)(ii)(A)			<input type="checkbox"/> 50.73(a)(2)(v)(A)			<input type="checkbox"/> 73.71(a)(4)		
		<input type="checkbox"/> 20.2203(a)(2)(iii)			<input type="checkbox"/> 50.36(c)(2)			<input type="checkbox"/> 50.73(a)(2)(v)(B)			<input type="checkbox"/> 73.71(a)(5)		
		<input type="checkbox"/> 20.2203(a)(2)(iv)			<input type="checkbox"/> 50.46(a)(3)(ii)			<input type="checkbox"/> 50.73(a)(2)(v)(C)			<input type="checkbox"/> 73.77(a)(1)		
		<input type="checkbox"/> 20.2203(a)(2)(v)			<input type="checkbox"/> 50.73(a)(2)(i)(A)			<input type="checkbox"/> 50.73(a)(2)(v)(D)			<input type="checkbox"/> 73.77(a)(2)(i)		
		<input type="checkbox"/> 20.2203(a)(2)(vi)			<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)			<input type="checkbox"/> 50.73(a)(2)(vii)			<input type="checkbox"/> 73.77(a)(2)(ii)		
					<input type="checkbox"/> 50.73(a)(2)(i)(C)			<input type="checkbox"/> OTHER			Specify in Abstract below or in NRC Form 366A		
<b>12. LICENSEE CONTACT FOR THIS LER</b>													
LICENSEE CONTACT Mr. Peter J. Miner - Regulatory Assurance Manager								TELEPHONE NUMBER (Include Area Code) 508-830-7127					
<b>13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT</b>													
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX				
A	JC	RI	G080	Y									
<b>14. SUPPLEMENTAL REPORT EXPECTED</b>					<b>15. EXPECTED SUBMISSION DATE</b>		MONTH	DAY	YEAR				
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)					<input checked="" type="checkbox"/> NO								
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)													
<p>On April 13, 2019, the operating crew placed the key lock switch for Main Steam Process Radiation Monitor (PRM) 1705-2D to the INOP position and restored the Mechanical Vacuum (MV) pump to ready state. Subsequent research into the INOP position for the PRM 1705-2D switch revealed that this action does not introduce a channel trip signal. Not placing the PRM in a trip condition with the MV pump restored to ready state, is a violation of Technical Specification Action Statement 3.8.2.A.2 to place the channel or associated trip system in trip within 24 hours.</p> <p>There were no actual consequences to safety of the general public, nuclear safety, industrial safety, or radiological safety for this event.</p> <p>This report is submitted in accordance with Title 10 Code of Federal Regulations 50.73(a)(2)(i)(B).</p>													



## LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form  
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [InfoCollects.Resource@nrc.gov](mailto:InfoCollects.Resource@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Pilgrim Nuclear Power Station	05000- 293	YEAR	SEQUENTIAL NUMBER	REV NO.
		2019	- 003	- 00

### NARRATIVE

#### BACKGROUND

The Mechanical Vacuum (MV) pump is provided to remove gases from the main condenser during plant startup and shutdown when steam is not available for the steam jet air ejectors.

The MV pump isolation instrumentation initiates a trip of the MV pump and isolation of the associated isolation valve following events in which main steam line radiation exceeds predetermined values. Tripping and isolating the MV pump limits the offsite doses in the event of a control rod drop accident.

The MV pump isolation instrumentation includes sensors, relays, and switches that are necessary to cause initiation of a pump isolation. The channels include electronic equipment that compares measured input signals with pre-established setpoints. When the setpoint is exceeded, the channel output relay actuates, which then outputs an isolation signal to the MV pump isolation logic.

#### EVENT DESCRIPTION

On April 13, 2019, the operating crew placed the key lock switch for Main Steam (MS) Process Radiation Monitor (PRM) 1705-2D to the INOP position and restored the MV pump to ready state. Subsequent research into the INOP position for the PRM 1705-2D switch revealed that this action does not introduce a channel trip signal. Not placing the PRM in a trip condition with the MV pump restored to ready state, is a violation of Technical Specification (TS) Action Statement 3.8.2.A.2 to place the channel or associated trip system in trip within 24 hours.

The event occurred during power operation while at 100 percent reactor power. The reactor mode selector switch was in the RUN position.

#### CAUSE OF THE EVENT

Not placing the affected MS PRM channel in a trip condition with the MV pump restored to ready state was a human performance error.

#### CORRECTIVE ACTIONS

After discovering that the INOP position for the MS PRM 1705-2D switch does not introduce a channel trip signal as expected, the MV pump was removed from ready state in accordance with TS Action Statement 3.8.2.B.1.

Any further corrective actions will be documented in the corrective action program.

**LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET**

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		2019	- 003	- 00

**SAFETY CONSEQUENCES**

The MV pump is provided to remove gases from the main condenser during plant startup and shutdown when steam is not available for the air ejectors. The event occurred during normal power operation. Therefore, the MV pump was not in service, or required. As a result, there were no actual consequences to safety of the general public, nuclear safety, industrial safety, or radiological safety for this event.

**REPORTABILITY**

The condition is reportable under Title 10 Code of Federal Regulations 50.73 as a condition prohibited by TS.

**PREVIOUS EVENTS**

There have been no events reported in the last three years related to the MV Pump.

**REFERENCES**

CR-PNP-2019-02431