



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

June 22, 2017

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

SUBJECT: Licensee Event Report 2017-007-00, Potential Inoperability of Safety Relief Valve 3A

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

LETTER NUMBER: 2.17.047

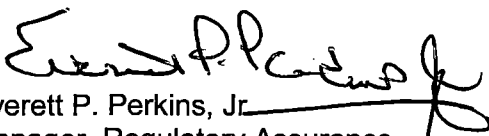
Dear Sir or Madam:

The enclosed Licensee Event Report 2017-007-00, Potential Inoperability of Safety Relief Valve 3A, is submitted in accordance with Title 10 Code of Federal Regulations 50.73.

If you have any questions or require additional information, please contact me at (508) 830-8323.

There are no regulatory commitments contained in this letter.

Sincerely,


Everett P. Perkins, Jr.
Manager, Regulatory Assurance

EPP/sc

Attachment: Licensee Event Report 2017-007-00, Potential Inoperability of Safety Relief Valve 3A (3 Pages)

IEZZ
NRR

cc: Mr. Daniel H. Dorman
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Mr. John Lamb, Senior Project Manager
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop O-8C2A
Washington, DC 20555

USNRC Senior Resident Inspector
Pilgrim Nuclear Power Station

Attachment

Letter Number 2.17.047

Licensee Event Report 2017-007-00

Potential Inoperability of Safety Relief Valve 3A

(3 Pages)



LICENSEE EVENT REPORT (LER)
(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 <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, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-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 Pilgrim Nuclear Power Station	2. DOCKET NUMBER 05000293	3. PAGE 1 OF 3
--	-------------------------------------	--------------------------

4. TITLE Potential Inoperability of Safety Relief Valve 3A

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	24	2017	2017	- 007	00	06	22	2017	N/A	05000 N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	05000 N/A

9. OPERATING MODE N	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)											
	<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)		
10. POWER LEVEL 0	<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)		
	<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 checked="" 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 checked="" 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			

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Mr. Everett P. Perkins, Jr. - Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) 508-830-8323
---	---

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
B	SB	RV	T020	Y					

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO
---	--

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)
On April 24, 2017, during Refueling Outage 21 while performing testing on the Pilgrim Nuclear Power Station (PNPS) Safety/Relief Valves, a high resistance was measured across the solenoid pilot valve coil of SV203-3A. This solenoid pilot valve was replaced during Refueling Outage 21. After the solenoid pilot valve was removed it was transported to an offsite vendor for additional testing.

PNPS will continue to follow the testing performed by our offsite vendor and provide any additional information, as appropriate, to the NRC.

PNPS currently believes that this event is reportable under 10 CFR 50.73(a)(2)(i)(B), as a condition prohibited by Technical Specifications and also, potentially reportable under 50.73(a)(2)(v)(B) and 50.73(a)(2)(v)(D), a condition that could have prevented fulfillment of a safety function needed to remove residual heat and mitigate the consequences of an accident.

This event posed no threat to public health and safety.



**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, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-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		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Pilgrim Nuclear Power Station	05000-293	2017	- 007	- 00

NARRATIVE

BACKGROUND

The 2-stage pilot operated safety relief valve consists of two principle assemblies: a pilot valve section (top works) and the main valve section. The pilot valve section (first stage) is the pressure sensing and control element and the main valve (second stage) provides the pressure relief function. The first stage consists of a pilot-stabilizer disc assembly. The pilot is the pressure sensing member to which the stabilizer disc movement is coupled. Though not mechanically connected, a light spring keeps the stabilizer in contact with the pilot. A pilot preload spring permits set point adjustment of the valve and provides pilot seating force. The second or main stage consists essentially of a large piston which includes the main valve disc, the main valve chamber, and a preload spring.

PNPS has four safety relief valves. Each of the four relief valves is equipped with an accumulator and check valve arrangement. These accumulators are provided to assure that the valves can be held open following failure of the nitrogen supply to the accumulators, and are sized to contain sufficient nitrogen for a minimum of 20 valve operations for each safety relief valve. Bottled gas can be used to manually recharge the accumulators associated with two safety relief valves. This capability was installed to address a potential loss of normal nitrogen supply to the accumulators which was identified during seismic reviews.

EVENT DESCRIPTION

On April 24, 2017, while performing testing on the Pilgrim Nuclear Power Station (PNPS) safety relief valves a high resistance was measured across the solenoid valve coil circuit of SV203-3A.

CAUSE OF THE EVENT

The degradation mechanism has been determined to be the solenoid pilot valve coil with high electrical resistance.

CORRECTIVE ACTIONS

Removed and replaced solenoid pilot valve assembly for SV203-3A.



**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, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-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		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Pilgrim Nuclear Power Station	05000-293	2017	- 007	- 00

SAFETY CONSEQUENCES

There are no consequences to the general safety of the public, nuclear safety, industrial safety and radiological safety from this event. There was a potential inoperability of the Automatic Depressurization System (ADS) which provides a means to rapidly depressurize the primary system to a pressure where low-pressure systems can provide makeup for core cooling in the event of a small or medium break Loss of Coolant Accident.

No actions to reduce the frequency or consequence are necessary.

REPORTABILITY

Since ADS is a single train system, PNPS currently believes that this event is reportable under 10 CFR 50.73(a)(2)(i)(B), as a condition prohibited by Technical Specifications and also, potentially reportable under 50.73(a)(2)(v)(B) and 50.73(a)(2)(v)(D); a condition that could have prevented fulfillment of a safety function needed to remove residual heat and mitigate the consequences of an accident.

PREVIOUS EVENTS

LER 2015-002-00, Main Steam Safety Relief Valves Determined to be Inoperable Following Evaluation

LER 2013-002-00 and -01, SRV-3B Safety Relief Valve Declared Inoperable Due to Leakage and Setpoint Drift

LER 2011-007-00, Safety Relief Valve Declared Inoperable Due to Leakage

REFERENCES

CR-PNP-2017-5067

CR-PNP-2017-5386

CR-PNP-2017-6183