



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 13, 2019

Mr. Brian Sullivan  
Site Vice President  
Pilgrim Nuclear Power Station  
Entergy Nuclear Operations, Inc.  
600 Rocky Hill Road  
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION – INTEGRATED INSPECTION  
REPORT 05000293/2019001

Dear Mr. Sullivan:

On March 31, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Pilgrim Nuclear Power Station (Pilgrim). On April 18, 2019, the NRC inspectors discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

NRC inspectors documented one self-revealing Severity Level IV violation with no associated finding. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or the significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC resident inspector at Pilgrim.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

Anthony Dimitriadis, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Docket Number: 50-293  
License Number: DPR-35

Enclosure:  
Inspection Report 05000293/2019001

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REPORT 05000293/2019001 DATED MAY 13, 2019

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Number: 50-293

License Number: DPR-35

Report Number: 05000293/2019001

Enterprise Identifier: I-2019-001-0042

Licensee: Entergy Nuclear Operations, Inc. (Entergy)

Facility: Pilgrim Nuclear Power Station (Pilgrim)

Location: Plymouth, Massachusetts

Inspection Dates: January 1, 2019 to March 31, 2019

Inspectors: E. Burket, Senior Resident Inspector  
B. Pinson, Resident Inspector  
P. Boguszewski, Resident Inspector  
S. Pindale, Senior Reactor Inspector  
J. Schoppy, Senior Reactor Inspector  
J. Vazquez, Resident Inspector  
S. Wilson, Health Physicist  
A. Ziedonis, Senior Resident Inspector

Approved By: Anthony Dimitriadis, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring Entergy’s performance at Pilgrim by conducting the baseline inspections described in this report in accordance with the Reactor Oversight Process (ROP). The ROP is the NRC’s program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information. Findings and violations being considered in the NRC’s assessment are summarized in the table below.

### List of Findings and Violations

Target Rock Relief Valve Pilot Assembly Failed As-Found Lift Test, A Condition Prohibited by Plant Technical Specifications			
Cornerstone	Significance	Cross-cutting Aspect	Report Section
Not Applicable	NCV 05000293/2019001-01 Open/Closed	Not Applicable	71153
A self-revealed, Severity Level IV, NCV of TS 4.6.D.1, Safety and Relief Valves, was identified when Entergy was notified that the as-found lift setpoint of a safety relief valve (SRV) exceeded the technical specification (TS) tolerance limit of 1155 +/- 34.6 psig (+/- 3 percent) during routine testing at an offsite vendor’s test facility. Specifically, the as-found lift setpoint of SRV, pilot serial number 1025, exceeded the maximum allowable TS value of 1189.6 psig by 7.4 psig.			

### Additional Tracking Items

Type	Issue number	Title	Report Section	Status
LER	05000293/2018-003-00	Target Rock Relief Valve Pilot Assembly Failed As-Found Lift Test, a Condition Prohibited by Plant Technical Specifications	71153	Closed
LER	05000293/2019-001-00	Reactor Core Isolation Cooling System Declared Inoperable During Surveillance Testing	71153	Closed
LER	05000293/2019-002-00	Failure of Main Steam Isolation Valve Limit Switch Results in a Condition Prohibited by Technical Specifications	71153	Closed

## PLANT STATUS

The unit began the inspection period at rated thermal power. On January 3, 2019, the station reduced power to 25 percent to troubleshoot and repair 'A' feedwater regulating valve. On January 6, 2019, operations personnel returned the unit to rated thermal power. On January 16, 2019, the station reduced power to 25 percent to repair a leaking primary containment isolation system valve. On January 17, 2019, operations personnel returned the unit to rated thermal power. On March 20, 2019, the station reduced power to 35 percent to repair a leaking feedwater heater valve in the condenser bay. On March 21, 2019, operations personnel returned the unit to rated thermal power and remained at or near rated thermal power for the remainder of the inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## REACTOR SAFETY

### 71111.01 - Adverse Weather Protection

#### Impending Severe Weather Sample (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated readiness for impending adverse weather conditions for extreme cold temperatures on January 31, 2019.

### 71111.04 - Equipment Alignment

#### Partial Walkdown (IP Section 03.01) (4 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) 'B' emergency diesel generator on February 5, 2019
- (2) High pressure coolant injection system on February 9, 2019
- (3) Reactor building closed cooling water on February 25-26, 2019
- (4) 'A' and 'B' salt service water before and after 'B' salt service water testing on March 18-20, 2019

#### 71111.04S - Equipment Alignment

##### Complete Walkdown (IP Section 03.02) (1 Sample)

The inspectors evaluated system configurations during complete walkdowns of the following system:

- (1) 'A' emergency diesel generator following maintenance and testing on March 27, 2019

#### 71111.05A - Fire Protection (Annual)

##### Annual Inspection (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated fire brigade performance on January 30, 2019.

#### 71111.05Q - Fire Protection

##### Quarterly Inspection (IP Section 03.01) (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) 'B' switchgear (fire zone 2.1) on February 24, 2019
- (2) Cable spreading room (fire zone 3.2) on February 24, 2019
- (3) Radwaste corridor area (fire zone 3.1) on February 26, 2019
- (4) 'B' reactor building closed cooling water (fire zone 1.22) on March 9, 2019
- (5) Machine shop (fire zone 3.8) on March 19, 2019

#### 71111.07T - Heat Sink Performance

##### Triennial Review (IP Section 02.02) (3 Samples)

The inspectors evaluated heat exchanger/sink performance on the following:

- (1) 'B' spent fuel pool cooling heat exchanger
- (2) 'B' reactor building closed cooling water heat exchanger
- (3) Ultimate heat sink associated with service water system operation and intake structure condition

#### 71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

##### Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

The inspectors observed and evaluated licensed operator performance in the control room during down power to 25 percent and isolation of 'C' main steam line on January 3, 2019.

##### Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

The inspectors observed and evaluated licensed operator requalification training in the simulator on March 13, 2019.

### 71111.12 - Maintenance Effectiveness

#### Routine Maintenance Effectiveness Inspection (IP Section 02.01) (3 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Rod worth minimizer troubleshooting and repairs on February 20, 2019
- (2) Main stack high range effluent monitors following return to (a)(2) status on February 20, 2019
- (3) Neutron monitoring instrumentation following return to (a)(2) status completed March 12, 2019

### 71111.13 - Maintenance Risk Assessments and Emergent Work Control

#### Risk Assessment and Management Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Emergent work to troubleshoot and replace recirculation motor generator set B1 speed limiter on January 5, 2019
- (2) Elevated risk during reactor core isolation cooling testing and inoperability on January 8, 2019
- (3) Elevated risk during emergency diesel generator maintenance on February 4, 2019
- (4) Elevated risk during reactor core isolation cooling maintenance and testing on March 27, 2019

### 71111.15 - Operability Determinations and Functionality Assessments

#### Sample Selection (IP Section 02.02) (4 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Reactor core isolation cooling operability evaluation after quarterly surveillance and replacement of flow controller (CR-2019-0145) on January 8, 2019
- (2) Reactor core isolation cooling operability following flow oscillations (CR-2019-0802) on February 6, 2019
- (3) Main steam isolation valve AO-203-1C input to reactor protection system past operability (CR-2019-0090) on February 20, 2019
- (4) Control rod drive operability following scram pilot valve air header alarms (CR-2019-1783) on March 29, 2019



### 71111.18 - Plant Modifications

#### Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (2 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Feedwater check valve, 6-CK-62B, clamp installation
- (2) Main steam isolation valve 1C reactor protection system relay K3F

### 71111.19 - Post Maintenance Testing

#### Post Maintenance Test Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) 'B' emergency diesel generator turbo air assist relay replacement post work testing on February 4, 2019
- (2) Drywell to torus vacuum breaker AO-5045D relay replacement post work testing on March 14, 2019
- (3) 'B' fuel pool pump, P210B, post work testing on March 18, 2019

### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

#### In Service Testing (IST) (IP Section 03.01) (1 Sample)

- (1) 8.5.4.1 High pressure coolant injection operability and flow rate test on February 5, 2019

#### Surveillance Testing (IP Section 03.01) (4 Samples)

- (1) 8.5.5.1 Reactor core isolation cooling operability run on January 10, 2019
- (2) 8.M.2-1.5.10 High pressure coolant injection vacuum breaker isolation valve testing on February 5, 2019
- (3) 8.5.1.1 Core spray operability surveillance on March 5, 2019
- (4) 8.3.3 Scram discharge isolation volume vent and drain valve operability surveillance on March 21, 2019

### 71114.06 - Drill Evaluation

#### Emergency Preparedness (EP) Drill (IP Section 02.01) (1 Sample)

The inspectors evaluated the conduct of a routine emergency planning drill on Wednesday, February 13, 2019.

## **RADIATION SAFETY**

### 71124.01 - Radiological Hazard Assessment and Exposure Controls

#### Contamination and Radioactive Material Control (IP Section 02.03) (1 Sample)

The inspectors observed the monitoring of potentially contaminated material leaving the radiological controlled area and inspected the methods and radiation monitoring instrumentation used for control, survey, and release of that material. The inspectors selected several sealed sources from inventory records and assessed whether the sources were accounted for and were tested for loose surface contamination. The inspectors evaluated whether any recent transactions involving nationally tracked sources were reported in accordance with requirements.

#### High Radiation Area and Very High Radiation Area Controls (IP Section 02.05) (1 Sample)

The inspectors reviewed the procedures and controls for high radiation areas, very high radiation areas, and radiological transient areas in the plant.

#### Instructions to Workers (IP Section 02.02) (1 Sample)

The inspectors reviewed high radiation area work permit controls and use, reviewed electronic alarming dosimeter alarms and set points, observed worker briefings on radiological conditions, and observed containers of radioactive materials and assessed whether the containers were labeled and controlled in accordance with requirements.

#### Radiation Worker Performance and Radiation Protection Technician Proficiency (IP Section 02.06) (1 Sample)

The inspectors evaluated radiation worker performance with respect to radiation protection work permit requirements. The inspectors evaluated radiation protection technicians in performance of radiation surveys and in providing radiological job coverage.

#### Radiological Hazard Assessment (IP Section 02.01) (1 Sample)

The inspectors conducted independent radiation measurements during walkdowns of the facility and evaluated:

- (1) The radiological survey program
- (2) Changes to plant operations since the last inspection
- (3) Recent plant radiation surveys for radiological work activities
- (4) Air sampling and analysis
- (5) Continuous air monitor use

#### Radiological Hazards Control and Work Coverage (IP Section 02.04) (1 Sample)

The inspectors evaluated in-plant radiological conditions and performed independent radiation measurements during facility walkdowns and observation of radiological work activities. The inspectors assessed whether posted surveys; radiation work permits; worker radiological briefings and radiation protection job coverage; the use of continuous air monitoring, air sampling and engineering controls; and dosimetry monitoring were consistent

with the present conditions. The inspectors examined the control of highly activated or contaminated materials stored within the spent fuel pool and the posting and physical controls for selected high radiation areas, locked high radiation areas, and very high radiation areas.

#### 71124.04 - Occupational Dose Assessment

##### External Dosimetry (IP Section 02.02) (1 Sample)

The inspectors reviewed the current annual collective dose estimate; basis methodology; and measures to track, trend, and reduce occupational doses for ongoing work activities. The inspectors evaluated the adjustment of exposure estimates, or re-planning of work. The inspectors reviewed post-job ALARA evaluations.

##### Source Term Categorization (IP Section 02.01) (2 Samples)

- (1) The inspectors evaluated radiological work planning by reviewing significant work activities to verify that ALARA planning was integrated into work procedures and radiation work permit documents.
- (2) The inspectors evaluated the licensee's characterization of the source term and use of scaling factors for the use of hard-to-detect radionuclide activity.

#### **OTHER ACTIVITIES – BASELINE**

##### 71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

##### BI01: Reactor Coolant System (RCS) Specific Activity Sample (IP Section 02.10) (1 Sample)

For the period January 1, 2018 through December 31, 2018

##### BI02: RCS Leak Rate Sample (IP Section 02.11) (1 Sample)

For the period January 1, 2018 through December 31, 2018

##### MS05: Safety System Functional Failures (SSFFs) Sample (IP Section 02.04) (1 Sample)

For the period January 1, 2018 through December 31, 2018

##### 71152 - Problem Identification and Resolution

##### Annual Follow-up of Selected Issues (IP Section 02.03) (4 Samples)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) Condition reports 2018-9566, 2019-0021, 2019-0078 and 2019-0302, Rod worth minimizer block action outside of design and subsequent inoperability
- (2) Condition report 2016-2205, Boraflex neutron-absorbing panel degradation in the spent fuel pool

- (3) Condition report 2018-0820, Target rock safety relief valve pilot assembly failed as-found lift test
- (4) Condition report 2007-4079 and 2016-3672, Part 21 automatic voltage regulator for emergency diesel generators

71153 – Follow-up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (3 Samples)

The inspectors evaluated the following Licensee Event Reports (LERs) which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>:

- (1) LER 05000293/2018-003-00, Target Rock Relief Valve Pilot Assembly Failed As-Found Lift Test, a Condition Prohibited by Plant Technical Specifications (ADAMS Accession No. ML18093A388). The circumstances surrounding this LER are documented in the Inspection Results section of the report.
- (2) LER 05000293/2019-001-00, Reactor Core Isolation Cooling System Declared Inoperable During Surveillance Testing on March 5, 2019 (ADAMS Accession No. ML19064A593). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER therefore no performance deficiency was identified. The inspectors also concluded that no violation of NRC requirements occurred.
- (3) LER 05000293/2019-002-00, Failure of Main Steam Isolation Valve Limit Switch Results in a Condition Prohibited by Technical Specifications (ADAMS Accession No. ML19065A050). The circumstances surrounding this LER are documented in the Inspection Results section of the report.

**INSPECTION RESULTS**

Observation	71152
<p>The inspectors performed a review of Entergy's evaluation and corrective actions associated with LER 05000293/2018-003-00, "Target Rock Relief Valve Pilot Assembly Failed As-Found Lift Test, A Condition Prohibited by Plant Technical Specifications." This LER, and the associated condition report, CR-PNP-2018-00820, evaluated and documented a main steam safety relief valve as-found lift setpoint test failure. Specifically, one of the four safety relief valves exceeded the technical specification tolerance limit of 1155 +/- 34.6 psig (+/- 3 percent) during routine testing at an offsite vendor's test facility. The setpoint drift has been attributed to "corrosion bonding" which involves bridging oxide buildup between the Stellite 21 pilot disc surface and Stellite 6 pilot valve body seating surface.</p> <p>As documented in NRC Regulatory Issue Summary 2000-12, corrosion bonding is a known phenomenon in the nuclear industry that affects the 2-stage target rock safety relief valves. It characteristically results in the valve lifting at a higher pressure, failing to meet its setpoint criteria during the first lift attempt; but the affected safety relief valve typically lifts satisfactorily at its nominal setpoint during consecutive tests (after the corrosion bond is broken during the initial lift).</p> <p>The inspectors evaluated Entergy's prioritization and timeliness of corrective actions to determine whether they were appropriately identifying, characterizing, and correcting problems associated with this issue, and whether the planned or completed corrective actions were commensurate with the safety significance. The inspectors determined Entergy staff</p>	

implemented corrective actions intended to improve safety relief valve performance, which included changing the pilot disc material to Stellite 6B with a platinum coating. This material is expected to reduce the likelihood of corrosion bonding. Previously (circa 2011), Entergy staff replaced the 2-stage safety relief valves with 3-stage target rock safety relief valves, in part, to address the corrosion bonding issue. However, operating experience with the 3-stage target rock safety relief valve at Pilgrim as well as other boiling water reactors, revealed an unrelated problem with the 3-stage safety relief valve design. In response, Entergy staff installed the 2-stage design during the Spring 2015 refueling outage pending a final resolution of the 3-stage safety relief valve design issue.

Relative to the one safety relief valve that did not meet test acceptance criterion, Entergy staff performed an evaluation of the as-found set pressures for all four safety relief valves and concluded no design or licensing basis limits would have been exceeded had the safety relief valves been required to operate. The inspectors reviewed the evaluation and did not identify deficiencies; the safety impact due to one safety relief valve being slightly out of tolerance was minimal.

During the refueling outage in which the four safety relief valves were removed for testing, Entergy staff replaced all four safety relief valves with those that were refurbished, certified, and tested (to within +/- 1 percent of 1155 psig as per TS 4.6.D.1). As stated above, Entergy provided a less susceptible material with platinum coating in an effort to prevent continued setpoint drift due to corrosion bonding.

The inspectors concluded Entergy staff implemented corrective actions consistent with industry and vendor initiatives to minimize the corrosion bonding issues. These corrective actions implemented industry and vendor recommendations and were commensurate with the safety significance of the issue. The Enforcement aspect of this issue is dispositioned below.

Observation	71152
<p>The inspectors conducted inspection activities to follow up on Entergy's continuing corrective actions taken to address degraded Boraflex neutron absorption panels in the Pilgrim spent fuel pool. The NRC previously reviewed this issue and Entergy's prior corrective actions in 2017, as discussed in NRC Inspection Reports 05000293/2017001 (ADAMS Accession No. ML17136A015) and 05000293/2017004 (ADAMS Accession No. ML18045A058).</p>	
<p>Inspectors reviewed Entergy's logs for fuel moves taking place in 2018, documentation of the current spent fuel pool configuration, and a revised criticality analysis that was implemented by Entergy. Inspectors also discussed actions taken and the details of the criticality analysis with knowledgeable Entergy staff. Inspectors reviewed Entergy's administrative controls for managing criticality in the spent fuel pool to ensure that fuel moves and the current fuel configuration adhered to the established requirements. Additionally, inspector's reviewed Entergy's current plans for the eventual offload of all fuel in the spent fuel pool to dry cask storage.</p>	
<p>Based on their review, the inspectors concluded that there is reasonable assurance that the reconfigured spent fuel pool provides sufficient margin to ensure that criticality will be maintained within regulatory limits in the spent fuel pool during and following the offload of the fuel currently in the reactor core into the spent fuel pool. Throughout 2018, Entergy took actions to unload a portion of the fuel from the spent fuel pool into dry-cask storage, and these actions introduced sufficient capacity into the spent fuel pool to safely conduct full</p>	

offload of the fuel currently in the core. This offload is planned to take place following the planned shutdown and permanent cessation of operations.

Target Rock Relief Valve Pilot Assembly Failed As-Found Lift Test, A Condition Prohibited by Plant Technical Specifications			
Cornerstone	Severity	Cross-cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000293/2019001-01 Open/Closed	Not Applicable	71153
<p>A self-revealed, Severity Level IV, NCV of TS 4.6.D.1, Safety and Relief Valves, was identified when Entergy was notified that the as-found lift setpoint of a safety relief valve (SRV) exceeded the technical specification (TS) tolerance limit of 1155 +/- 34.6 psig (+/- 3 percent) during routine testing at an offsite vendor's test facility. Specifically, the as-found lift setpoint of SRV, pilot serial number 1025, exceeded the maximum allowable TS value of 1189.6 psig by 7.4 psig.</p>			
<p><u>Description:</u> On January 26, 2018, Entergy staff received results that an as-found setpoint test for one of the four main steam SRV pilot stage assemblies had exceeded the lift setting tolerance prescribed in TSs. Specifically, one of the four pilot stage assemblies tested experienced drift beyond the +/- 3 percent tolerance permitted by Technical Specification 4.6.D.1. The SRV had been in service the prior operating cycle. Entergy staff concluded that the cause of the setpoint drift was attributed to corrosion bonding between the pilot disc and seating surfaces. This condition was reportable under 10 CFR 50.73(a)(2)(i)(B) as any operation or condition which was prohibited by the plant's technical specifications.</p> <p>Corrective Actions: Entergy staff replaced all four SRVs with those that were refurbished, certified, and tested (to within +/- 1 percent of 1155 psig as per TS 4.6.D.1). Entergy staff implemented additional corrective actions intended to improve SRV performance. Specifically, they changed the pilot disc material (Stellite 6B with a platinum coating), which is expected to be less susceptible to the corrosion bonding phenomenon.</p> <p>Corrective Action Reference: CR-PNP-2018-00820</p>			
<p><u>Performance Assessment:</u> The NRC determined this violation was not reasonably foreseeable and preventable by the licensee and therefore is not a performance deficiency. The inspectors concluded Entergy staff implemented corrective actions consistent with industry and vendor initiatives to minimize the corrosion bonding issues. These corrective actions implemented industry and vendor recommendations and were commensurate with the safety significance of the issue.</p>			
<p><u>Enforcement:</u> The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation, which impedes the NRC's ability to regulate using traditional enforcement. Because there is no performance deficiency, and therefore no finding was identified, it is necessary to address this violation using traditional enforcement to adequately deter non-compliance. The inspectors reviewed the NRC Enforcement Policy, Section 2.2.1, "Factors Affecting Assessment of Violations", issued on May 15, 2018. Section 2.2.1 states, in part, that in determining the appropriate enforcement response to a violation, the NRC considers, whenever possible, risk information in assessing the safety or security significance of violations and assigning severity levels. The inspectors also reviewed IMC</p>			

0609, Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 2, "Mitigating Systems Screening Questions," issued on June 19, 2012. The inspectors determined the issue to be of very low safety significance (Green) because it did not represent a loss of system or function because the SRV (pilot valve serial number 1025) remained capable of lifting to protect the reactor coolant system. As a result, the inspectors determined that the issue's significance was Severity Level IV.

Violation: TS 4.6.D.1 requires that all four SRVs shall be operable with a lift setpoint of 1155 psig +/- 34.6.

Contrary to the above, on January 26, 2018, Entergy staff identified that the as-found lift setpoint for one SRV (pilot valve serial number 1025) was measured above the TS 4.6.D.1 maximum allowable value. Because this discovery occurred after the valve was removed from service, Entergy determined that it was reasonable to conclude that while the valve had been installed, the lift setpoint was not within the TS required values, resulting in the valve being inoperable for a period of time in excess of the TS 4.6.D.1 allowed outage time for one SRV.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy. The ROP's significance determination process does not specifically consider violations without findings in its assessment of licensee performance. Therefore, it is necessary to address this violation using traditional enforcement to adequately deter non-compliance.

The disposition of this violation closes Licensee Event Report 05000293/2018-003-00.

Minor Violation	71153
<p>Minor Violation: The failure to take actions in accordance with the time constraints required by Technical Specifications Table 3.1.1.</p> <p>As described in Licensee Event Report 05000293/2019-002-00, Entergy identified that on January 3, 2019, operators did not place the associated reactor protection system logic channel in a tripped position within 12 hours as required per technical specifications after the limit switch LS6 failed to open when main steam isolation valve 1C was closed.</p> <p>Screening: The inspectors determined the performance deficiency was minor, because there was no impact to the main steam isolation valve closure scram function within the reactor protection system.</p> <p>Enforcement: This failure to comply with Technical Specifications Table 3.1.1 constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.</p> <p>The disposition of this minor violation closes Licensee Event Report 05000293/2019-002-00.</p>	

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On April 18, 2019, the inspector presented the quarterly resident inspector inspection results to Brian Sullivan and other members of the licensee staff.



**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.04	Drawings	M212, Sh.1	Service Water System P & ID	Revision 97
	Miscellaneous	8.5.3.14	SSW Flow Rate Operability Test	performed 3/19/19
71111.05Q	Procedures	2.2.32	Salt Service Water System (SSW)	Revision 97
	Procedures	5.5.2	Special Fire Procedure	Revision 59
71111.07A	Engineering Evaluations	EN-DC-161	Control of Combustibles	Revision 19
		WT-WTPNP-2017-0140 CA 34	Salt Service Water System Maintenance Rule (a)(1) Evaluation	dated 8/16/17
		2.2.32	Salt Service Water System (SSW)	Revision 98
		5.3.3	Loss of All Service Water	Revision 30
		5.3.37	Loss of Spent Fuel Pool Cooling Event	Revision 6
71111.11Q	Procedures	EN-OP-115	Conduct of Operations	Revision 26
71111.12	Procedures	EN-DC-205	Maintenance Rule Monitoring	Revision 6
71111.13	Procedures	EN-WM-104	On-line Risk Assessment	Revision 18
71111.15	Procedures	2.2.92	Main Steam Line Isolation and Turbine Bypass Valves	Revision 57
		EN-OP-104	Operability Determination Process	Revision 16
71111.18	Procedures	EN-DC-115	Engineering Change Process	Revision 26
		EN-DC-136	Temporary Modifications	Revision 18
71114.06	Procedures	EP-AD-601	Emergency Action Level Technical Basis Document	Revision 9
71152	Corrective Action Documents	CR-PNP-2016-02205		
		CR-PNP-2018-00565		
		CR-PNP-2018-07519		
		CR-PNP-2018-09458		
		CR-PNP-2018-09459		
		CR-PNP-2018-09461		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
71153	Miscellaneous	Engineering Report ECH-NE-19-00018	PNPS Fuel Storage Criticality Safety Analysis of Spent Fuel Storage Racks Utilizing Burnup Credit to Remove Boraflex Credit	Revision 0	
		ICA 2017- 45 through 2017-49	Item Control Area Transfer Forms		
		ICA 2018-03 through 2018-17	Item Control Area Transfer Forms		
		ICA 2018-27	Item Control Area Transfer Form		
			NA	Diagram of current spent fuel pool configuration by criticality safety analysis fuel type, Cycle 22	generated on February 28, 2019
	Procedures	PNPS 4.3	Fuel Handling	Revision 140	
	Corrective Action Documents	2019-0090			
		2019-0838			