

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Oyster Creek, Unit 1 DOCKET NUMBER (2) 0 5 1 0 0 0 PAGES 1 OF 0 4

TITLE (4) Isolation Condenser Automatic Actuation Pressure Sensors Exceed Setpoint Limit Due to Limitations of Installed Instruments.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
08	19	88	88	016	00	09	16	88			0 5 1 0 0 0
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OPERATING MODE (9) N THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

20.402(b)	<input type="checkbox"/>	20.406(a)	<input type="checkbox"/>	50.73(a)(2)(iv)	<input type="checkbox"/>	73.71(b)	<input type="checkbox"/>
20.406(a)(1)(i)	<input type="checkbox"/>	50.36(a)(1)	<input type="checkbox"/>	50.73(a)(7)(iv)	<input type="checkbox"/>	73.71(e)	<input type="checkbox"/>
20.406(a)(1)(ii)	<input type="checkbox"/>	50.36(a)(2)	<input type="checkbox"/>	50.73(a)(2)(i)(A)	<input type="checkbox"/>	OTHER (Specify in Abstract below and in Text, NRC Form 306A)	<input type="checkbox"/>
20.406(a)(1)(iii)	<input type="checkbox"/>	50.73(a)(2)(i)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)(B)	<input type="checkbox"/>		
20.406(a)(1)(iv)	<input type="checkbox"/>	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(i)(B)	<input type="checkbox"/>		
20.406(a)(1)(v)	<input type="checkbox"/>	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(i)(C)	<input type="checkbox"/>		

LICENSEE CONTACT FOR THIS LER (12) NAME Michael Godknecht, Plant Engineering TELEPHONE NUMBER 609 971-4189

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15) MONTH    DAY    YEAR   

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

During routine surveillance testing, the Isolation Condenser automatic actuation pressure sensors RE15A, RE15B, RE15C and RE15D tripped at values greater than those specified in Technical Specification 2.3.E.

The installed sensors have a designed accuracy of + 7.5 psig and a history of setpoint drift within this band. The surveillance tolerance for the trip setpoint is the Technical Specification value (1060) +0 -2 psig. Therefore, the setpoint repeatability can be within the design accuracy of the instrument, but drift above the Technical Specification limit.

Engineering studies have selected an analog trip system as the most appropriate way to minimize setpoint drift, thus improving setpoint repeatability. The analog trip system will be installed in accordance with GPUN's integrated schedule and the accuracy of the sensors chosen for this system will significantly improve setpoint repeatability.

The sensors now installed were adjusted to trip within the desired setpoint limits. This event had no effect upon public health or safety.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

Date of Occurrence

The event occurred on August 19, 1988 at approximately 1425 hours.

Identification of Occurrence

During surveillance testing, the isolation condenser (EIIS-BC) automatic initiation pressure sensors (EIIS-PS), RE15A, RE15B, RE15C and RE15D tripped at values greater than those specified in Technical Specification Limiting Safety System Setpoints (LSSS), section 2.3.E.

This event is considered to be reportable as defined in 10CFR50.73(a)(2)(i)(B).

Conditions Prior to Occurrence

The reactor was operating in the RUN mode with a thermal output of 1929 MWth and a generator load of approximately 646 MWe.

Description of Occurrence

On August 19, 1988 at approximately 1425 hours, while performing the "Isolation Condenser Automatic Actuation Sensor Calibration and Test", the RE15A, RE15B, RE15C and RE15D pressure sensor trip setpoints were found to be less conservative than those specified in the Technical Specifications. The surveillance test revealed the following data:

<u>Pressure Switch Designation</u>	<u>Technical Specification Limit *</u>	<u>As Found Psig **</u>
RE15A	1068.35	1075
RE15B	1068.35	1073
RE15C	1066.01	1068
RE15D	1066.01	1073

\* These values are obtained by adding respective head correction factors to the Technical Specification limit of 1060 psig.

\*\* The as-left trip points specified in the surveillance procedure are 1068 +0 -2 psig for RE15A and B, and 1066 +0 -2 for RE15C and D.

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TEXT (if more space is required, use additional NRC Form 368A's) (17)

Apparent Cause of Occurrence

The cause of this occurrence is attributed to inadequate instrument repeatability. The design accuracy for this type of sensor is +7.5 psig, and the tolerance allowed for the instrument setpoint is +0, -2 psig. Therefore, normal setpoint drift allows the setpoint repeatability to be within the design accuracy of the sensor, but outside the tolerance allowed by the Technical Specifications. All sensors are operating within their designed accuracy band.

Analysis of Occurrence and Safety Significance

The purpose of the Isolation Condensers is to remove decay heat and depressurize the reactor vessel in the event the main condenser is unavailable as a heat sink. Using the Isolation Condensers in this condition will conserve inventory in the reactor vessel, preventing a possible decrease in water level below the limits specified in Technical Specifications. During a high pressure condition in the reactor vessel, the Isolation Condensers, together with the Turbine Bypass System, Electromatic Relief Valves and Safety Valves, also act to ensure that reactor pressure never reaches the reactor coolant system pressure safety limit of 1375 psig.

Four pressure sensors (RE15A, B, C and D) are provided to transmit a high pressure signal for automatic Isolation Condenser actuation. Reactor Protection System (RPS) channel I logic includes sensors RE15A and C. RPS channel II logic includes sensors RE15B and D. Actuation of one pressure sensor in each channel will cause an automatic initiation of both Isolation Condensers. The safety significance of this event is considered minimal since the Isolation Condensers would have automatically initiated at a value approximately five (5) psig higher than the Technical Specification limit of 1060 psig.

Corrective Action

Short Term:

The pressure sensors were adjusted to trip within the tolerance specified by the plant surveillance procedures.

Long Term:

The installed sensors have a history of setpoint drift within the design accuracy of +7.5 psig. Since this allows the instruments to drift above the Technical Specification limit, a new analog system has been selected to replace the present system. The sensors selected for the new system will have an accuracy that will significantly improve setpoint repeatability. The analog trip system is planned to be installed in accordance with GPUN's integrated schedule.

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TEXT (If more space is required, use additional NRC Form 365a) (17)

Similar Events

- LER 88-009: "Isolation Condenser Actuation Pressure Sensors Exceed Setpoint Limit Due to Limitations of Installed Instruments"
- LER 88-004: "Isolation Condenser Actuation Pressure Sensors Exceeded Setpoint Limit"
- LER 86-006: "Isolation Condenser Actuation Pressure Sensors Exceeded Setpoint Limit"
- LER 85-011: "Three Out of Four Isolation Condenser Actuation Pressure Sensors Out of Spec."

Equipment Data

Barksdale  
Proof 1800 psi

Model #B2TA12SS  
Switch Adjustable Range 50-1200 psi

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**GPU Nuclear Corporation**  
Post Office Box 388  
Route 9 South  
Forked River, New Jersey 08731-0388  
609 971-4000  
Writer's Direct Dial Number:

September 16, 1988

Director of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Mail Station P1-137  
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
Licensee Event Report

This letter forwards one (1) copy of Licensee Event Report (LER)  
No. 88-016.

Very truly yours,

E. E. Fitzpatrick  
Vice President & Director  
Oyster Creek

EEF:MH:dmd(0546A)  
Enclosures

cc: Mr. William T. Russell, Administrator  
Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. Alexander W. Dromerick  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

NRC Resident Inspector  
Oyster Creek Nuclear Generating Station  
Forked River, NJ 08731

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