



**Northeast  
Nuclear Energy**

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The Northeast Utilities System

JUL 13 2000

Docket No. 50-336  
B18152

Re: 10 CFR 50.73(a)(2)(iv)

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 2  
Licensee Event Report 2000-008-01  
Auto Start of "A" Emergency Diesel Generator  
During Loss of Normal Power Test Restoration

This letter forwards Licensee Event Report (LER) 2000-008-01, documenting an event that occurred at Millstone Nuclear Power Station, Unit No. 2, on May 07, 2000. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(iv). This LER supplement provides information on the root cause and corrective actions associated with this event.

Northeast Nuclear Energy Company (NNECO) commitments made within this letter are included in Attachment 1.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
C. J. Schwarz  
Station Director

Attachments (2): List of Regulatory Commitments  
LER 2000-008-01

cc: H. J. Miller, Region I Administrator  
J. I. Zimmerman, NRC Project Manager, Millstone Unit No. 2  
S. R. Jones, Senior Resident Inspector, Millstone Unit No. 2

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Attachment 1

Millstone Nuclear Power Station, Unit No. 2

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies actions committed to by NNECO in this document.

<b>Number</b>	<b>Commitments</b>	<b>Due</b>
B18152-01	The IPTE program procedure shall be revised to require additional review of changes to test procedures.	October 31, 2000
B18152-02	Appropriate Operations personnel will be briefed on the lessons learned from this event.	September 1, 2000

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Attachment 2

Millstone Nuclear Power Station, Unit No. 2

LER 2000-008-01

# LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If 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.

<b>FACILITY NAME (1)</b> <p style="text-align: center;">Millstone Nuclear Power Station Unit 2</p>	<b>DOCKET NUMBER (2)</b> <p style="text-align: center;">05000336</p>	<b>PAGE (3)</b> <p style="text-align: center;">1 OF 4</p>
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**TITLE (4)**  
 Auto Start of "A" Emergency Diesel Generator During Loss of Normal Power Test Restoration

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 NAME	DOCKET NUMBER
05	07	2000	2000	-- 008	-- 01	07	13	2000		

<b>OPERATING MODE (9)</b>	6	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</b>								
<b>POWER LEVEL (10)</b>	000	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)					
		<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(x)					
		<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 73.71					
		<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 20.2203(a)(4)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> OTHER					
		<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	Specify in Abstract below #f in NRC Form 366A					
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)								

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> <p style="text-align: center;">R. Joshi, MP2 Acting Regulatory Compliance Supervisor</p>	<b>TELEPHONE NUMBER (Include Area Code)</b> <p style="text-align: center;">(860) 440-2080</p>
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**COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

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

**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

On May 7, 2000, an inadvertent auto start of the 'A' Emergency Diesel Generator (EDG) occurred during the restoration of the EDG from a facility Loss of Normal Power (LNP) Test which had been terminated.

The root cause of this inadvertent diesel start has been determined to be an inadequate procedure validation due to the lack of specificity in the Infrequently Performed Tests or Evolutions (IPTE) procedure.

As a result of this event the facility LNP test procedures were revised, the IPTE program procedure shall be revised and Operations personnel will be briefed on the lessons learned from this event.

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

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
Millstone Nuclear Power Station Unit 2	05000336	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2000	- 008	- 01	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On May 7, 2000, an inadvertent auto start of the 'A' Emergency Diesel Generator (EDG) [DG] [EK] occurred during the restoration of the EDG from a facility Loss of Normal Power (LNP) Test which had been terminated. At the time of this event, the unit was in mode 6 (Refueling Outage 13).

The LNP test was terminated due to unexpected lifting of RBCCW [CC] relief valves [RV] and due to excessive vibration of a Containment Air Recirculation fan [FAN] [BB]. Operations personnel were in the process of restoring the EDG from the LNP test when the inadvertent EDG start occurred. At the time of the EDG start, the associated 4160V emergency bus had been restored to its normal offsite power source. The EDG start occurred when the EDG local alarm [ALM] reset button was pushed.

The unexpected start occurred due to the Engineering Safety Feature (ESF) emergency bus undervoltage relays (UV) [27] still being "locked in" from the low bus voltage signal generated during the LNP test. The termination section of the LNP test procedure did not identify the need to reset the UV relays prior to resetting the EDG local alarm reset button located on the EDG skid. The test procedure specified that the UV relays were to be checked reset after the local alarm reset button had been pushed.

This event is being reported pursuant to the requirements of 10 CFR 50.73(a)(2)(iv), any event that resulted in the manual or automatic actuation of any ESF. A prompt report was issued on May 8, 2000 in accordance with 10 CFR 50.72(b)(2)(ii).

The facility's Infrequently Performed Tests or Evolutions (IPTE) Program is designed to ensure that adequate management and supervisory oversight and controls are established prior to and maintained during the performance of infrequently performed tests or evolutions. Areas emphasized within the program include setting the proper conditions prior to the start of an evolution, adequate training and briefs of all personnel involved in the test or evolution, maintaining clear command and control, and adequate development of contingencies for unexpected conditions. The IPTE Program also requires that the procedures provide termination criteria and a restoration section.

As part of the IPTE program implementation, test procedures (including the LNP test procedure) were revised in April 1995 to be consistent with the IPTE format. When the LNP procedure associated with the 'A' EDG test was revised to the IPTE format, a provision to reset the UV condition prior to resetting the diesel was not included in the restoration section.

For this event the LNP test was performed while the 4160 V emergency bus was aligned to the Reserve Station Service Transformer (RSST). Normally the LNP test is performed with the emergency bus aligned to the Normal Station Service Transformer (NSST). Restoration from the LNP test while the emergency bus is aligned to the NSST does not include stopping the EDG, precluding the possibility of an inadvertent EDG start. Use of the RSST to power the emergency bus resulted in a different section of the LNP procedure being utilized during restoration. Termination of the LNP test for this event resulted in the procedure directing Operations personnel to skip the section where the UV relays are normally reset and entering the restoration section of the procedure, which did not include resetting the UV relays prior to resetting the EDG local alarm reset button.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

II. Cause of Event

The root cause of this inadvertent diesel start has been determined to be an inadequate procedure validation due to the lack of specificity in the IPTE procedure.

III. Analysis of Event

The EDG provides electrical power to supply emergency loads in the power plant in the event the normal and alternate power sources are lost. Due to the plant configuration and duration that the "A" EDG was running, this event had no adverse safety consequences. The other EDG was operable at all times during this event and capable of providing emergency power to the operable train of safety-related equipment. The inadvertent EDG start while in mode 6 did not result in any equipment damage nor did it challenge any other safety systems. Evaluation of this event concludes that this event was not safety significant.

IV. Corrective Action

As a result of this event the following actions have been, or will be, performed.

- 1) The test termination criteria for the facility LNP test procedures have been revised to ensure the undervoltage trip is reset at the appropriate time.
- 2) The IPTE program procedure shall be revised to require additional review of changes to test procedures. This activity shall be completed by October 31, 2000.
- 3) Appropriate Operations personnel will be briefed on the lessons learned from this event. This activity shall be completed by September 1, 2000.

V. Additional Information

Similar Events

Previous similar events involving unexpected EDG starts include:

LER 1997-027: On August 2, 1997, at approximately 0800 hours, while troubleshooting a blown fuse for the Engineered Safeguards Actuation System actuation Facility 1 Logic Supply 'A', Instrumentation and Control personnel lifted the Diesel Generator Start Signal lead which resulted in an inadvertent start of the 'A' Emergency Diesel Generator (EDG). The lead which had been lifted was required to be re-landed before the EDG could be shutdown. Operations personnel loaded the EDG and shut it down in accordance with the appropriate operating procedures. The cause of this event was a failure to provide adequate detailed instructions for the preparation, review and approval of a troubleshooting plan. As a result of this event, adequate measures will be established to ensure appropriate independent and management review of troubleshooting plans by September 30, 1997.

LER 1995-028: On July 4, 1995, at 2300 hours with the plant in mode 5 and reactor coolant system at 120 degrees F, an inadvertent actuation of Engineered Safety Features (ESF) occurred. This resulted in the starting of both EDGs and actuation of several other ESF components including starting of

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

fans, and stroking of valves. The causes of this event were inappropriate wiring practices which resulted in the generation of electronic noise during surveillance testing and personnel error in the control of troubleshooting. Corrective actions consisted of hardware design changes to reduce the system's susceptibility to electronic noise, plus counseling and/or disciplining of personnel involved in the troubleshooting. Post-installation testing revealed a significant reduction in electronic noise and no further ESF actuations.

Energy Industry Identification System (EIIIS) codes are identified in the text as [XX].