

## 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: 50.0 HRS. REPORTED LESSONS  
LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED  
BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN  
ESTIMATE TO THE INFORMATION AND 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.

FACILITY NAME (1)

Millstone Nuclear Power Station Unit 3

DOCKET NUMBER (2)

05000423

PAGE (3)

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TITLE (4)

4.16 kV Category I Circuit Breakers Not Seismically Restrained When in the Racked-Down Position

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
11	14	96	96	047	00	12	13	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
POWER LEVEL (10)		000	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)	
			20.2203(a)(1)		20.2203(a)(3)(i)		<input checked="" type="checkbox"/> 50.73(a)(2)(ii)		50.73(a)(2)(x)	
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
			20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	
			20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
			20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

## LICENSEE CONTACT FOR THIS LER (12)

NAME

J.M. Peschel, MP3 Nuclear Licensing Manager

TELEPHONE NUMBER (Include Area Code)

(860)437-5840

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

## SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION	MONTH	DAY	YEAR
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## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On November 14, 1996, with the plant in Mode 5, a potential seismic concern with General Electric safety related 4.16 kilovolt (kV) circuit breakers was identified on Millstone Unit 1. These switchgear circuit breakers have not been seismically restrained when not in the fully engaged operating position. During an earthquake, the potential exists for an unrestrained breaker to strike the doors of the cubicle. The impacts could jar the relays on the switchgear breaker cubicle, or on adjacent cubicles, possibly resulting in a trip of the associated bus breakers with loss of power to safety related equipment.

As a result an immediate notification was made on November 14, 1996, pursuant to 10CFR50.72(b)(1)(ii)(B) for a condition outside the design basis of the plant. There were no adverse safety consequences from this condition, in that the unit has not experienced a seismic event.

Procedures have been revised to clarify seismic qualification requirements. Evaluations will be performed of work and operating processes. Training and additional guidance will be provided to unit personnel to inform them of seismic requirements.

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

I. Description of Event

On November 14, 1996, with the plant in Mode 5, a potential seismic concern with General Electric (GE) safety related 4.16 kilovolt (kV) circuit breakers was identified on Millstone Unit 1. These switchgear circuit breakers have not been seismically restrained when not in the fully engaged operating position.

At Millstone Unit 3, the switchgear is of the vertical-lift design and the circuit breaker is racked up and down using an elevating mechanism built into the cubicle. The seismically qualified configuration of the switchgear is with the breaker lifted and engaged in the operating position. Movement of the breaker in this configuration is restrained in the front-to-back and side-to-side directions by the elevating mechanism.

During testing or maintenance the breaker is disengaged by being racked-down (racked-out) and rests on wheels on the floor of the cubicle. Fully racked-down breakers are not supported by the elevating mechanism and because they do not have front-to-back restraint can roll within the cubicle during a seismic event. Lateral motion of these safety related breakers within the switchgear cubicles is not a concern due to the tight side-to-side clearances. The displacement of a fully racked-down breaker during a seismic event could impart vibrations into the switchgear cubicle structure. This potentially could cause the relays on the door panels (and on adjacent switchgear units) to chatter and trip the associated breakers with a resulting loss of power to supplied safety related equipment.

As a result of this condition, an immediate notification was made on November 14, 1996, pursuant to 10CFR50.72(b)(1)(ii)(B) for a condition outside the design basis of the plant.

II. Cause of Event

The cause of this event was a failure to recognize the inconsistency between the seismic qualification of the 4.16 kV switchgear circuit breakers and their application inservice. Specifically, the circuit breakers were qualified for use in the fully engaged or racked-in position. However, in their field application they can be in the fully engaged position, or the disengaged (racked-down) position, or in the test position. Additionally, the unit staff had insufficient procedures and knowledge of seismic qualification requirements of this equipment.

III. Analysis of Event

The potential for the breaker to move when in the fully racked-down position was not recognized within the switchgear design bases or discussed in the seismic qualification report received from the vendor. The operating and maintenance manuals for both the switchgear and the breakers do not indicate that additional steps are needed to secure a breaker in the fully racked-down test or storage positions in order to maintain the seismic qualification of the switchgear. Consequently, it was not recognized by the unit staff and no efforts were made to restrain the breakers under these conditions.

There were no adverse safety consequences from this condition, in that the unit has not experienced a seismic event. However, the condition is significant in that it represents a condition outside the design basis of the plant.

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IV. Corrective Action

The following corrective actions have been taken:

1. As an immediate corrective action, the safety related 4.16 kV switchgear circuit breakers that were in the not engaged (racked-down) storage position were removed from their cubicles while other long-term corrective actions are being investigated.
2. Steps were added to the operating and maintenance procedures to ensure that when breakers on the safety related 4.16 kV buses are racked-down, they are either seismically restrained within their cubicles, or are removed from their cubicles and properly stored.

The following corrective actions will be taken:

1. The document providing engineering guidance on generic seismic inspection criteria for Unit 3 will be revised to add additional guidance on seismic qualification by February 5, 1997.
2. Operations, maintenance and the technical support organizations will review procedures to determine evolutions where plant equipment is placed in alternative configurations in which it may not be seismically qualified. Procedures will be revised as necessary to incorporate the results by April 15, 1997.
3. Training will develop a program to inform the appropriate engineering, operations, and maintenance personnel of seismic qualification requirements. This training will be completed by May 1, 1997.
4. Engineering will work with the switchgear vendor to identify and incorporate (if necessary) any additional seismic restraints for the 4.16 kV safety related switchgear. Storage requirements for racked-down breakers will be reviewed with the vendor. This will be completed by startup of the unit.

V. Additional Information

None

Similar EventsLER 96-022-00 "Emergency Diesel Generator Control Panel Noncompliance with Seismic Design Basis"

The control panel cabinets in both trains of the Emergency Diesel Generator system had several pawl latches that had not been used and two latches on the "A" train panel were broken. This condition, which had existed for a number of years, had invalidated the seismic qualification of the control panels.

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

LER 96-016-00     "Switchgear Cabinet Noncompliance with Seismic Design Basis, and Subsequent Inadvertent Engineered Safety Feature Actuation Signal"

Several switchgear cabinets in both trains of the 4160 V emergency power system has seismic latches that had not been used and several bolts were missing from the back of the cubicles. This condition had existed for a number of years and invalidated the seismic qualification of the switchgear.

Manufacturer Data

EIIS System Code:

Emergency Onsite Power System - EK

EIIS Component Code:

Bus - BU

AC Circuit Breaker - 52

Component Vendor

General Electric, Switchgear - G080