

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 1

DOCKET NUMBER (2)

05000245

PAGE (3)

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TITLE (4)

Temporary Equipment Configuration Jeopardizing Operability of 4kV System

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	13	96	96	057	00	12	13	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	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

Robert W. Walpole, MP1 Nuclear Licensing Manager

TELEPHONE NUMBER (Include Area Code)

(860)440-2191

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	<input checked="" type="checkbox"/> NO
(If yes, complete EXPECTED SUBMISSION DATE).	

EXPECTED SUBMISSION

MONTH DAY YEAR

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

On November 13, 1996, with the plant in the COLD SHUTDOWN condition, it was determined that the storage of racked out 4kV circuit breakers within their associated switchgear enclosure could jeopardize the operability of the associated switchgear. This condition resulted in the plant being outside of its design basis, and a prompt report was made pursuant to 10CFR50.72(b)(1)(ii)(B). This event is reportable pursuant to 10CFR50.73(a)(2)(ii) as a condition outside the design basis of the plant.

The cause of this event is the lack of recognition of the interaction potential of the 4kV breakers during a postulated earthquake. The displacement of the breaker within the cubicle could result in pounding loads to the side panels or the cubicle door. This type of load can result in contact chatter of relays within the switchgear.

There were no safety consequences as a result of this event.

The seismic interaction issue will be addressed and physical and/or procedural changes completed to preclude this interaction prior to declaring 4kV system operable. Immediate corrective actions include use of existing hardware within the switchgear to secure the breaker within the cubicle.

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

I. Description of Event

On November 13, 1996, with the plant in the COLD SHUTDOWN condition, it was determined that the storage of racked out 4kV circuit breakers within their associated switchgear enclosure could jeopardize the operability of the associated switchgear. Currently, the 4kV system is not operable due to issues with the Emergency Diesel Generator and the Gas Turbine.

The breakers are racked out as part of equipment tag out for maintenance and other activities. While this condition is most prevalent during refueling activities, breakers are also racked down while the Unit is operating. The displacement of the breaker within the cubicle could result in pounding loads to the side panels or the cubicle door. The loadings which the breakers can impart to the switchgear are high frequency impact loads and are typical "seismic interaction" loads which can cause relays to chatter. This chatter could result in protective relays activating and locking out a particular bus, jeopardizing the operability of the loads on that bus.

This condition resulted in the plant being outside of its design basis, and a prompt report was made pursuant to 10CFR50.72(b)(1)(ii)(B) on November 13, 1996. There were no automatic or manually initiated safety system responses as a result of this event.

II. Cause of Event

The cause of this event is the lack of recognition of the impact of this plant condition on the operability of associated equipment. This configuration was not addressed in any design reviews of the switchgear and thus was not evaluated previously.

III. Analysis of Event

The plant condition associated with outage conditions typically involves the maintenance of plant equipment. In order to support these activities, equipment is tagged out and protective measures taken to preclude inadvertent operation. The protective measures include actions such as racking down of breakers to prevent the loads from being energized. Additionally, there is a small population of breakers which are normally racked down during plant operations. With the breakers in the racked down position, the mechanism which secures the breaker in the switchgear cubicle is disengaged and the breaker free to move within the cubicle. This unrestrained motion can impart loads into the switchgear causing inadvertent momentary change of state (chatter) possibly resulting in loss of the associated 4kV bus. This condition violates the design basis of the 4kV system which is required to be operable during a design basis earthquake. This condition is reportable pursuant to 10CFR50.73(a)(2)(ii).

There were no safety consequences as a result of this event. The safety implications are that historically, in the worst cases scenario, there could have been a breaker racked out in each of the 4kV division rendering the whole 4kV system not operable. In the event that an earthquake had occurred with the switchgear in this configuration, there may have been damage to the cubicle containing the racked out breaker and spurious action of relays in adjacent cubicles. This spurious action could necessitate operator action to restore the affected bus. The cubicles which could have sustained any damage were not serving a critical function as the breakers were racked down and the loads not energized. The cubicles (4160-14E-13 "Diesel Generator to Bus 14E" and 4160-14D-16 "D to G Tie Breaker") which contain breakers normally racked down during power operation contain no door mounted relays.

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

IV. Corrective Action

The breakers which are racked down will be secured within the cubicle to prevent movement using existing hardware associated with the elevator mechanism by December 30, 1996. This immediate corrective measure will be reviewed to assess its suitability for a long term solution to the interaction concern.

The 480v system has been reviewed and although breakers are also racked out for similar reasons to the 4kV system, there is not the potential interaction issue due to the physical restraint of the breaker in the Test and Disconnect position.

Northeast Nuclear Energy Company will address the seismic interaction issue and provide appropriate permanent physical and/or procedural changes to preclude this interaction of racked down breakers prior to declaring 4kV system operable.

V. Additional InformationSimilar Events

There are no similar events involving seismic interactions on the 4kV system.

Manufacturer Data

None.