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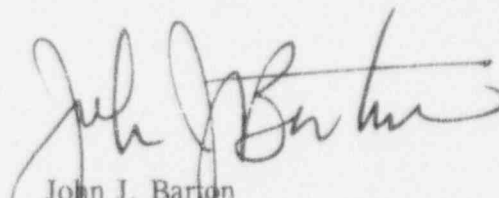
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report 94-001

Enclosed is Licensee Event Report 94-001, Revision 1. Changes have been indicated by a bar in the right hand margin.

If there are any questions please contact Terry Sensue at 609.971.4680.



John J. Barton
Vice President and Director
Oyster Creek

JJB/JJR
Enclosure

cc: Administrator, Region I
Senior Resident Inspector
Oyster Creek NRC Project Manager

IF22
11

LICENSEE EVENT REPORT (LER)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

FACILITY NAME (1)

Oyster Creek, Unit 1

DOCKET NUMBER (2)

05000219

PAGE (3)

1 OF 3

TITLE (4)

Core Spray Piping Exceeding the Code Allowable Stresses Due to Original Design Deficiency

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
01	13	94	94	001	01	08	16	94	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)			20.402(b)			20.405(c)			50.73(a)(2)(iv)	73.71(b)
			20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)	73.71(c)
			20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)	OTHER
			20.405(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)	Specify in Abstract below and in Text, NRC Form 366A
			20.405(a)(1)(iv)		X	50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)	
			20.405(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME:

Sylvain L. Schwartz

TELEPHONE NUMBER (Include Area Code)

609-971-4558

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).

X

NO

EXPECTED SUBMISSION DATE (15)

MONTH

DAY

YEAR

ABSTRACT

During the design process for a Core Spray piping modification, it was discovered that the existing Core Spray Systems 1 and 2 minimum recirculation piping configuration did not meet the seismic and thermal expansion criteria allowables specified in the UFSAR. The root cause of this condition was inadequacy of the original design.

The safety significance is considered to be minimal, as the existing configuration meets the ASME Section III allowable seismic and thermal expansion criteria and satisfies the operability limits.

A modification presently scheduled for the upcoming 15R refueling outage will change the subject piping configuration to meet the UFSAR criteria.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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APPROVED BY OMB NO. 3150-0104
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DATE OF DISCOVERY

The condition described in this report was identified on January 13, 1994.

IDENTIFICATION OF DISCOVERY

The Core Spray Systems 1 and 2 (EHS-BM) minimum recirculation valves (CFI-FSV) V-20-92, V-20-93, V-20-94, and V-20-95 are not sufficiently supported for design seismic loading. The Core Spray System 1 minimum recirculation line is not flexible enough to accept design thermal expansion, and two of the System 2 piping supports may exceed AISC requirements for supplemental structural steel. This condition is considered to be reportable in accordance with 10 CFR 50.73(a)(2)(ii).

CONDITIONS PRIOR TO DISCOVERY

At the time of discovery, the plant was operating at approximately full power. The condition has been present in all plant modes throughout the plant's operating history.

DESCRIPTION OF OCCURRENCE

The existing Core Spray System 1 and 2 minimum recirculation piping configuration does not meet the seismic and thermal expansion criteria allowables specified in the Updated Final Safety Analysis Report (UFSAR) Table 3.9-1, which is based on ANSI B31.1 code. For system 1, the seismic plus maximum operating loads (i.e., dead weight and pressure condition) exceed the code allowables by 2.33 times, using the design basis seismic response spectra. In addition, the thermal expansion load at the design temperature of 350°F, exceeds the code allowables by 4.87 times. For system 2, the seismic plus maximum operating load condition is 1.52 times the Code allowables. Also, the thermal loads at the design temperature of 350°F on two system 2 supports exceed the supplemental structural steel AISC requirements; one by a factor of 1.2 (deadweight plus thermal expansion) and on the other by a factor of 1.32 deadweight plus thermal expansion plus seismic. This condition was discovered during the design process of a Core Spray piping modification.

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APPARENT CAUSE OF OCCURRENCE

The cause of this condition was the inadequacy of the original piping design.

ANALYSIS OF OCCURRENCE AND SAFETY SIGNIFICANCE

This condition is considered to have minimal safety significance for the following reasons:

1. An analysis using the most accurate seismic spectra currently available showed that the existing configuration is within the ASME Section III Level D allowable stress.
2. At the Core Spray System design temperature of 350°F, the System 1 configuration is acceptable for 30 cycles according to ASME Section III criteria. The two System 2 supports meet the ASME Section III, Appendix F, level D criteria. There are no records indicating that this pipe has seen the design temperature specified in the analysis. Any significant back leakage past the parallel injection valves (CIF-INV) would be detected by the high pressure alarm (CIF-PA) and relief valve (CIF-RV) lifting alerting plant operators. There is no history of leakage with either the check valves (CIF-ISV) inside containment or the parallel injection valves. Therefore, there is no indication that the piping or supports were ever overstressed.
3. A visual inspection of the most highly stressed weld performed on January 14, 1994, revealed no anomalies.

Based on the above safety significance discussion, the Core Spray Systems are operable by determining that they satisfy ASME Section III criteria. In the unlikely event of a seismic occurrence or thermal transient, these systems would perform their designed safety function.

CORRECTIVE ACTIONS

The Core Spray piping modification presently scheduled for the upcoming refueling outage, will change the existing configuration to meet the UFSAR criteria, ANSI B31.1.

SIMILAR EVENTS

LER 85-023, Emergency Service Water System Seismic Concerns
LER 86-014, Containment Spray System Seismic Concerns
LER 86-021, Plant Systems Did Not Meet Seismic Design Basis