

MAY 24 1985

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NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

195235

LICENSEE EVENT REPORT (LER)

B&W

FACILITY NAME (1) THREE MILE ISLAND UNIT 2 DOCKET NUMBER (2) 05000320 PAGE (3) 1 of 04

TITLE (4) Reactor Building Internal Pressure Indication Registering a Value in Excess of Limits

Higher than

EVENT DATE (5) MONTH DAY YEAR YEAR SEQUENTIAL NUMBER REVISION NUMBER REPORT DATE (7) MONTH DAY YEAR OTHER FACILITIES INVOLVED (8) FACILITY NAMES DOCKET NUMBER(S)

OPERATING MODE (9) N THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) POWER LEVEL (10) 0,0,0 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 (Specify in Abstract below and in Text, NRC Form 366A) 20.405(a)(1)(iii) X 50.73(a)(2)(i) 50.73(a)(2)(viii)(A) 20.405(a)(1)(iv) 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)(ix)

LICENSEE CONTACT FOR THIS LER (12) NAME John C. Auger, TMI-2 Licensing Engineer TELEPHONE NUMBER AREA CODE 7117 9481-8244

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
X		PID SVV	0310	N					

fat 10-1-85

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE) X NO EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (18)

On March 16, 1985, it was determined that between approximately 1900 and 2313 hours on that day, a slightly positive internal pressure existed in the Reactor Building (R.B.). At the time of the slightly positive internal pressure, the external R.B. isolation valve AH-V-5 was out of service. With valve AH-V-5 in this condition, internal R.B. isolation valve AH-V-6 was closed, the R.B. Purge Exhaust System was shutdown and the R.B. was isolated.

The cause of this event has been determined to be decreasing atmospheric pressure while the R.B. was isolated and the R.B. Purge Exhaust System was shutdown. The amount of change in the atmospheric pressure caused the R.B. internal pressure to become positive.

The R.B. internal pressure being greater than zero (0) psig for a period in excess of one hour resulted in the violation of the Technical Specification (Tech. Spec.) Limiting Condition for Operation (L.C.O.) 3.6.1.4 Action Statement. Failure to comply with the Action Statement results in this event being reportable to the NRC pursuant to 10 CFR 50.73 (a)(2)(i)(B).

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (if more space is required, use additional NRC Form 366A's) (17)

I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The TMI-2 facility was in a long-term cold shutdown state. The reactor decay heat was being removed via loss to ambient. Throughout this event there was no effect on the Reactor Coolant System or the core.

II. STATUS OF STRUCTURES, COMPONENTS, OR SYSTEMS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

External R.B. isolation valve AH-V-5 was out of service. As required by plant procedures, with AH-V-5 out of service, the internal R.B. isolation valve AH-V-6 was closed, the R.B. Purge Exhaust System was shutdown and the R.B. was isolated.

III. EVENT DESCRIPTION

On March 16, 1985, at 2300 hours, the oncoming shift Control Room Operator (C.R.O.) determined that the R.B. internal pressure, as recorded on R.B. Internal Pressure Indicators BS-PT-1412 and BS-PT-4388, was slightly greater than zero (0) psig. Further review by the C.R.O. led him to determine that this internal pressure condition had existed since approximately 1900 hours on that day. This interpretation of the recorded data was contrary to that of the previous shift's C.R.O.'s. Due to the inherent accuracy of the indicators, the data is frequently subject to interpretation. In this case, the recording line of the strip chart recorder was very close to the zero (0) psig data line of the strip chart. During the time that the R.B. internal pressure was slightly positive, the external R.B. isolation valve AH-V-5 was out of service. With AH-V-5 out of service, Tech. Spec. 3.6.1.1 requires that the internal R.B. isolation valve AH-V-6 be closed. The licensee was complying with this requirement. The penetration, R-562B, isolated by the closing of AH-V-6, provides a signal to the R.B. pressure sensor AH-PS-5058. This pressure sensor provides the High R.B. Pressure Alarm and provides a signal to automatically shutdown the R.B. Purge Exhaust System (IEEE Code-VA). Thus, with this pressure sensor out of service, the licensee is required by plant operating procedures to isolate the R.B. and shutdown the purge exhaust system. The licensee had taken these actions.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 366A 1) (17)

IV. ROOT CAUSE OF THE EVENT

The reportability of the event was based on the failure to comply with the one (1) hour Action Statement of Techn. Spec. L.C.O. 3.6.1.4.

The root cause of this event has been determined to be decreasing atmospheric pressure while the R.B. Purge Exhaust System was shutdown and the R.B. was isolated. The R.B. internal pressure was negative when the valve AH-V-5 was declared out of service at 0625 hours on March 16, 1985. At this time, the R.B. Purge Exhaust System was immediately placed in a shutdown condition and the R.B. was isolated. The atmospheric pressure at this time was approximately 30.27 (in inches of mercury) as recorded by the U.S. Weather Service - Harrisburg. At 1900 hours on March 16, 1985, the atmospheric pressure had dropped to 30.00 (in inches of mercury). This change in atmospheric pressure, while the R.B. was isolated and the R.B. Purge Exhaust System was shutdown, caused the R.B. internal pressure to become slightly positive.

V. CORRECTIVE ACTIONS PLANNED

Immediate

The following immediate actions were taken:

1. Upon discovery of the slightly positive R.B. internal pressure at 2300 hours on March 16, 1985, the R.B. Purge Exhaust System was restarted in accordance with the Emergency and Abnormal Procedure for High Reactor Building Pressure, 4211-EAP-3240.01. The R.B. internal pressure was returned to less than zero (0) psig at 2313 hours on March 16, 1985.
2. The Operating Procedure 2104-4.19, "Reactor Building Purge Using the Modified Purge System", was modified to reroute the sensing line for R.B. pressure sensor AH-P-5058, thus not requiring AH-V-5 and AH-V-6 to be open for its operation.

Long Term

A Plant Operations memorandum will be routed to all Operators to provide the following policy on the R.B. Internal Pressure Indications BS-PT-1412 and BS-PT-4388. In the future, when the recording line of these strip chart recorders is close enough to the zero (0) psig data line of the strip chart so as to be in question, then the higher reading of the two will be used. If the R.B. Internal Pressure Digital Heise Indication BS-PI-10 is available, then it will be used to determine if the R.B. internal pressure limit has been reached or exceeded in these cases.

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

VI. COMPONENT FAILURE DATA

AH-V-5 is a solenoid operated, 1" shutoff valve, model #V52600-546, manufactured by Valcor Engineering, Corp. of Kennelworth, N.J.

VII. AUTOMATIC OR MANUALLY INITIATED SAFETY SYSTEM RESPONSES

N/A

VIII. ASSESSMENT OF THE SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

Intuitively, the slight positive pressure in the R.B. for approximately four (4) hours did not present a sufficient driving force for any significant releases. During the four (4) hours of this event, the R.B. was isolated and there were no operations going on inside the R.B. which would have increased the airborne activity in the building. Also, both the Equipment Hatch Safety Evaluation Report and the Safety Evaluation Report for Opening of Air Lock Doors analyzes the effects of opening the R.B. to the atmosphere with the R.B. internal pressure slightly positive. In both cases, the health effects on the public are negligible. (Note: In both of these cases, the openings in the R.B. being discussed are much larger than any pathways which might have existed during this event.)



GPU Nuclear Corporation

Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2886
Writer's Direct Dial Number:

(717) 948-8461

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April 15, 1985

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 85-05

Attached is Licensee Event Report 85-05 concerning the Reactor Building Internal Pressure Indication registering a value in excess of the limits specified in Technical Specification Limiting Condition for Operation 3.6.1.4. This event occurred on March 16, 1985.

This event is considered reportable pursuant to Title 10 of the Code of Federal Regulations, Section 50.73(a)(2)(i)(B).

Sincerely,

for F. R. Standerfer
Vice President/Director, TMI-2

FRS/JCA/eml

Attachments

cc: Regional Administrator - Office of I & E, Dr. T. E. Murley
Program Director - TMI Program Office, Dr. B. J. Snyder
Deputy Program Director - TMI Program Office, Dr. W. D. Travers

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