

EXPIRES 04/30/98

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

FACILITY NAME (1)

R.E. Ginna Nuclear Power Plant

DOCKET NUMBER (2)

05000244

PAGE (3)

1 OF 5

TITLE (4)

Radiation Monitor Alarm, Due to Higher than Normal Radioactive Gas Concentration, Results in Containment
Ventilation Isolation

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
10	24	97	97	-- 004	-- 00	11	24	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		6	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)		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)		X 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

John T. St. Martin - Technical Assistant

TELEPHONE NUMBER (Include Area Code)

(716) 771-3641

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

On October 24, 1997, at approximately 1919 EST, the plant was in Mode 6 with the reactor coolant system being maintained at a temperature of 110 degrees F and depressurized and vented. The plant was shut down for refueling. During activities associated with opening the primary sides of the steam generators, radioactive gas concentration increased within the containment. A containment ventilation isolation occurred when containment gas radiation monitor R-12 reached its high alarm setpoint.

Immediate operator action was to perform the applicable actions of alarm response procedures.

Corrective action to prevent recurrence is outlined in Section V.B.

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

I. PRE-EVENT PLANT CONDITIONS:

On October 24, 1997, the plant was in Mode 6 with the reactor coolant system (RCS) being maintained at a temperature of approximately 110 degrees F and depressurized and vented. The plant was shut down for refueling. A containment (CNMT) purge was occurring, and other activities were in progress in preparation for opening the primary sides of the steam generators (SG). At approximately 1900 EST, all unnecessary personnel had been removed from the CNMT, in anticipation of removing the SG primary manway diaphragms. When the diaphragms were removed, radionoble gas concentration increased in CNMT.

II. DESCRIPTION OF EVENT:

A. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES:

- October 24, 1997, 1919 EST: Event date and time.
- October 24, 1997, 1919 EST: Discovery date and time.
- October 24, 1997, 1920 EST: Control Room operators verify all containment ventilation isolation functions have occurred.
- October 24, 1997, 2125 EST: Containment ventilation isolation is reset and containment purge resumed.

B. EVENT:

On October 24, 1997, radionoble gas concentration was increasing in CNMT, due to removing the SG primary manway diaphragms. At approximately 1919 EST, CNMT gas radiation monitor R-12 (part of the CNMT radiation monitoring system, or RMS) reached its high alarm setpoint. When R-12 alarms, it results in a CNMT ventilation isolation (CVI) signal.

When the CVI occurred, the following Main Control Board annunciators were received: A-25 (Containment Ventilation Isolation) and E-16 (RMS Process Monitor High Activity). The Control Room operators, responding to the above annunciators, observed that R-12 was on alarm. The Control Room operators immediately referred to Alarm Response procedures AR-A-25 and AR-RMS, and verified that all CNMT ventilation isolation valves (that were open) closed as designed, and that CNMT purge and exhaust fans tripped. They performed the applicable actions of the alarm response procedures.

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After consulting with the Radiation Protection group, it was determined that the high alarm setpoint for R-12 was set conservatively (approximately 1% of Technical Specification limit). Radiation Protection evaluated conditions and recommended increasing this setpoint. A temporary procedure change was initiated to temporarily increase this setpoint, as recommended by Radiation Protection. After this setpoint was temporarily increased, the CVI signal was reset, and the Control Room operators resumed the CNMT purge that had been in progress.

C. INOPERABLE STRUCTURES, COMPONENTS, OR SYSTEMS THAT CONTRIBUTED TO THE EVENT:

None

D. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

With the CVI, the following major components were isolated:

CNMT Purge Exhaust fan
R-10A, CNMT Iodine RMS Monitor
R-11, CNMT Particulate RMS Monitor
R-12, CNMT Gas RMS Monitor

E. METHOD OF DISCOVERY:

This event was immediately apparent due to Main Control Board annunciator alarms and CVI position indication on the Main Control Board.

F. OPERATOR ACTION:

The Control Room operators responded to the event by performing the applicable actions of alarm response procedures, and other actions as deemed necessary. They verified proper valve position for all CVI valves. The Control Room operators notified higher supervision and the NRC resident inspector. The Shift Supervisor subsequently notified the NRC per 10 CFR 50.72 (b) (2) (ii), non-emergency four hour notification, at approximately 2243 EST on October 24, 1997.

G. SAFETY SYSTEM RESPONSES:

The CVI valves (that were open) closed automatically from the CVI signal, as per design.

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

III. CAUSE OF EVENT:

A. IMMEDIATE CAUSE:

The immediate cause of the CVI was due to R-12 reaching its high alarm setpoint.

B. INTERMEDIATE CAUSE:

The intermediate cause of R-12 reaching its high alarm setpoint was increased radionoble gas concentration in CNMT after removing the SG primary manway diaphragms.

C. ROOT CAUSE:

The underlying cause of the increased radionoble gas concentration in CNMT was higher than normal RCS activity. This higher than normal RCS activity was due to fuel defects.

IV. ANALYSIS OF EVENT:

This event is reportable in accordance with 10 CFR 50.73, Licensee Event Report System, item (a) (2) (iv), which requires a report of, "Any event or condition that resulted in manual or automatic actuation of any engineered safety feature (ESF)". The CVI due to R-12 alarm was an automatic actuation of an ESF subsystem.

An assessment was performed considering both the safety consequences and implications of this event with the following results and conclusions:

There were no operational or safety consequences or implications attributed to the CVI because:

- The CVI occurred in Mode 6, when the CVI is not required to be operable. As per the Ginna Station Improved Technical Specifications (ITS), Specification 3.3.5 (Containment Ventilation Isolation Instrumentation) is only applicable in Modes 1-4, during core alterations, and during movement of irradiated fuel assemblies within CNMT.
- ITS Basis states: "While in MODES 5 and 6 without fuel handling in progress, the containment ventilation isolation instrumentation need not be OPERABLE since the potential for radioactive releases is minimized and operator action is sufficient to ensure post accident offsite doses are maintained within the limits of 10 CFR 100.11."

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- The CVI system operated as designed.
- The components affected were capable of withstanding the isolation.
- The CVI was in the conservative direction.

Based on the above, it can be concluded that the public's health and safety was assured at all times.

V. CORRECTIVE ACTION:

A. ACTION TAKEN TO RETURN AFFECTED SYSTEMS TO PRE-EVENT NORMAL STATUS:

The Control Room operators reset the CVI signal and restored the system to pre-event status (with a temporarily higher R-12 alarm setpoint).

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE:

- The new R-12 alarm setpoint was maintained for the duration of the refueling outage.
- Future refueling outage preparation activities will specifically review the potential need to revise RMS setpoints, based on RCS activity.

VI. ADDITIONAL INFORMATION:

A. FAILED COMPONENTS:

None

B. PREVIOUS LERs ON SIMILAR EVENTS:

A similar LER event historical search was conducted with the following results: No documentation of similar LER events with the same root cause at Ginna Station could be identified.

C. SPECIAL COMMENTS:

None

