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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-023-00:on 901119,Radiological Surveillance Procedure N2-RSP-RMS-M104 Rev 2 did not meet requirement for demonstrating automatic isolation of offgas sys discharge pathway.Caused by inadequate procedure review.W/901219 ltr.

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NIAGARA MOHAWK

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NMP73985

December 19, 1990

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Docket No. 50-410
LER 90-23

Gentlemen:

In accordance with 10CFR50.73, we hereby submit the following Licensee Event Report:

LER 90-23 Is being submitted in accordance with 10CFR50.73 (a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications".

This report was completed in the format designated in NUREG-1022, Supplement 2, dated September 1985.

Very truly yours,

Joseph F. Firlit
Vice President - Nuclear Generation

JFF/JM/lmc

ATTACHMENT

xc: Thomas T. Martin, Regional Administrator Region I
William A. Cook, Sr. Resident Inspector

IE22
1/1

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Nine Mile Point Unit 2	0 5 0 0 0 4 1 0	1 OF 0 7

TITLE (4) Offgas Noble Gas Monitor Channel Functional Test Failed To Meet Technical Specification Requirements Due To Inadequate Procedure Review

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 NAMES	DOCKET NUMBER(S)
									N/A	0 5 0 0 0
1 1	1 9	9 0	9 0	0 2 3	0 0	1 2	1 9	9 0	N/A	0 5 0 0 0

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
5	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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Preston Swafford, Manager Health Physics NMP2	AREA CODE 3 1 5 3 4 9 - 2 3 0 6

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

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

On November 19, 1990, during the periodic review of Radiological Surveillance Procedure N2-RSP-RMS-M104 Rev. 2, "Channel Functional Test of the Main Condenser Air Ejector Process Radiation Monitor", it was discovered that the procedure did not meet the requirement for demonstrating automatic isolation of the Offgas System discharge pathway, as required by Nine Mile Point Unit 2 (NMP2) Technical Specifications (TS), Table 4.3.7.10-1.1.a, Note b. NMP2 was in a refueling outage when this condition was discovered.

The cause of this condition is an inadequate procedure review due to poor managerial methods and poor work practices. The review did not insure all Technical Specification requirements were covered in the procedure.

Corrective actions include: declaring the Offgas Radiation Monitors inoperable; submitting a request for a TS change; issuing a Lessons Learned Transmittal (LLT); performing a review of Unit 2 Radiation Protection Surveillance procedures and Chemistry surveillance procedures for TS requirements; inserting [T/S] in the margin of the procedure for each step which is being used to meet a TS requirement.

I. DESCRIPTION OF EVENT

On November 19, 1990, during the biennial review of Radiological Surveillance Procedure N2-RSP-RMS-M104, "Channel Functional Test of the Main Condenser Air Ejector Process Radiation Monitor", it was discovered that Revision 2 did not satisfy the channel functional test requirement of Technical Specification (TS) Table 4.3.7.10-1.1.a, Note b. Specifically, the test did not demonstrate automatic isolation of the Offgas System (OFG) discharge pathway. The Offgas Noble Gas Activity Monitors, 20FG-CAB13A and 20FG-CAB13B provide Control Room annunciation and automatic termination of Offgas System flow by closing Stack Isolation Valve 20FG-AOV103 on a high radiation signal. Closure of 20FG-AOV103 requires a trip signal from each Offgas Monitor. Rev. 2 of procedure N2-RSP-RMS-M104 contained steps for testing the control room annunciation but did not test automatic closure of 20FG-AOV103 on a monthly basis as required by Technical Specifications. The Channel Calibration procedure, N2-RSP-RMS-R104, for the Offgas Monitors does test the valve closure and has been successfully performed at the required 18 month interval.

Closure of 20FG-AOV103 during power operations could result in a loss of vacuum and a subsequent plant scram if the valve is not reopened quickly after it is isolated. Because of the potential scram, monthly testing of the isolation valve is impractical. A request for a TS amendment has been initiated.

Review of the monthly channel functional tests shows that automatic isolation has never been performed during the monthly test. Review of the past revisions of procedure N2-RSP-RMS-M104 shows that Rev. 0 contained steps for testing automatic valve isolation but was never performed. The valve closure test was inappropriately removed during Rev. 1. The channel functional test was first performed using Rev. 1 on May 14, 1987. Rev. 2 of the procedure was made in February 1989. This revision consisted of minor changes to the procedure and resulted in the review being focused on the changes, such that the TS requirements were not reviewed.

The plant was in the REFUEL mode and the affected instrumentation was not required to be operable at the time of discovery of this condition. The Offgas Monitors 20FG-CAB13A and 20FG-CAB13B were declared inoperable and Equipment Status Log entries (ESL 90-117 and ESL 90-337) were updated.

I. DESCRIPTION OF EVENT (cont.)

Event Sequence:

02/06/87 20FG-CAB13A and 20FG-CAB13B Offgas channel calibrations
02/13/87 performed using N2-RSP-RMS-R104 demonstrating offgas discharge isolation (20FG-AOV103) on a high radiation signal.

03/11/87 Revision 1 to N2-RSP-RMS-M104 became effective. Steps to test the automatic isolation of 20FG-AOV103 were removed.

05/14/87 Monthly Channel Functional Tests of the Offgas Noble Gas Monitors performed for the first time using N2-RSP-RMS-M104 Rev. 1.

11/19/90 Procedure deficiency discovered. Occurrence Report initiated (OR 90-166).

There were no inoperable systems or components which contributed to this condition.

II. CAUSE OF EVENT

A root cause investigation was performed utilizing Nuclear Division Procedure NDP-16.01, "Root Cause Investigation".

The root cause for this event was determined to be poor managerial methods and poor work practices. It was concluded that inadequate technical reviews were performed on Radiation Surveillance Procedure N2-RSP-RMS-M104, "Channel Functional Test of the Main Condenser Air Ejector Process Radiation Monitor", for Technical Specification requirements, prior to the issue of procedure revisions 1 and 2. Specifically, during the initial (Revision 0) issue of N2-RSP-RMS-M104, the procedure contained the TS requirement for valve closure testing of Offgas System Air Operated Valve 20FG-AOV103.

During development of Revision 1, procedure changes were incorporated to reflect plant conditions. The author erroneously removed the valve TS closure test from the procedure. Subsequent technical reviews of the procedure failed to identify the omission of this TS requirement.

II. CAUSE OF EVENT (cont.)

Additionally, Revision 2 to the procedure focused on adding steps to an unrelated section of the surveillance test. Consequently, technical reviews were directed to that section of the procedure only.

III. ANALYSIS OF EVENT

This event is reportable in accordance with 10CFR50.73 (a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications".

The offgas radiation monitor control room annunciator was tested as required each month. If the annunciator alarms, operator action is defined in Operating Procedure N2-OP-42, "Offgas System". The procedure specifies that if both radiation monitors are alarming and radiation levels are increasing, notify the SSS and Reactor Analyst, and refer to the plant TS for possible Limiting Condition for Operations (LCO's) and applicable actions. Since the monitor alarm setpoint is set to alert Operations personnel prior to approaching a TS gaseous effluent limit, the operators would take action to limit gaseous effluent radiation levels, including isolating the discharge pathway, if necessary.

There were no significant safety consequences as a result of this condition. The periodic channel calibration tests performed on an 18 month basis using procedure N2-RSP-RMS-R104 have demonstrated that Offgas Isolation Valve (20FG-AOV103) would have operated if an actual Offgas high radiation condition existed. The health and safety of plant personnel and the general public were not affected as a result of this condition.

IV. CORRECTIVE ACTIONS

1. Monitors 20FG-CAB13A and 20FG-CAB13B were declared inoperable.

2. A Technical Specification amendment is being submitted to the NRC for approval. The amendment will change the frequency of demonstrating isolation of offgas to once every 18 months.

3. A Lessons Learned Transmittal has been generated and will be distributed to all site personnel; which emphasizes the review of referenced documents against the procedure to ensure all requirements are met.

IV. CORRECTIVE ACTIONS (cont.)

4. A review will be conducted of all Unit 2 Radiation Protection Surveillance procedures and Chemistry surveillance procedures for Technical Specification requirements prior to startup of Unit 2 following the current refueling outage.

5. The Site Procedure Writer's Guide now requires steps which are being used to meet a Technical Specification requirement to be designated by a [T/S] in the margin. This will help insure that writers do not inadvertently remove steps that are being used to meet Technical Specification requirements. All Unit 2 TS Effluent Monitoring procedures and Radiation Protection procedures will be updated with this designation during periodic procedure reviews.

6. A qualified reviewers list has been established to ensure procedures are reviewed by qualified individuals.

7. Administrative Procedure AP-2.0, "Production and Control of Procedures" has added a check on the "Technical Review and Control" form, to review Technical Specifications, bases, USAR/FSAR and applicable regulator guides for compliance. Specific direction for verifying these requirements is now provided in the body of AP-2.0.

8. An investigation was performed on LER 87-59, "Lack of Nine Channel Checks in Surveillance Procedure Results in Four Missed Technical Specification Surveillance Requirements", to determine why the corrective actions were not effective. See the previous similar events section below.

V. ADDITIONAL INFORMATION

A. Previous similar events:

LER 90-07 "Instrument Surveillance Procedure Deficiency Due to Inadequate Development and Review", contained corrective actions that could have prevented this condition but they were initiated after N2-RSP-RMS-M104 was revised.

LER 89-28 "Operational Surveillance Procedure Deficiency Due to Inadequate Development of ASME Section XI Requirements", contained corrective actions that could have prevented this condition but they were initiated after N2-RSP-RMS-M104 was revised.

V. ADDITIONAL INFORMATION (cont.)

LER 88-68 "Technical Specification Violation Caused by Installation Deficiency--Human Performance Deficiency--Inattention to Detail", contained a corrective action to review a 15 percent sample of all surveillance procedures to ensure surveillance requirements were met. However, N2-RSP-RMS-M104 was not one of the procedures sampled.

LER 87-59 "Lack of Nine Channel Checks in Surveillance Procedure Results in Four Missed Technical Specification Surveillance Requirements", contained a corrective action that formed a task force to review all surveillance procedures and ensure that the surveillance requirements were met. This corrective action should have identified the missing surveillance requirement in N2-RSP-RMS-M104. However, unlike the other task force members, the Radiation Protection and Chemistry member did not perform a detailed review of procedural content to ensure all surveillance testing requirements were adequately performed. In addition, management oversight of the task force failed to identify that this function of the task force charter had not been performed.

The following LER's were similar to this LER (TS violation due to inadequate procedure review) but the corrective actions would not have prevented this occurrence.

LER 87-28 "Technical Specification Violation Due to Incomplete Surveillance Testing"

LER 87-41 "Technical Specification Violation Results from Failure to Increase Surveillance Monitoring of the Service Water Supply Temperature--Procedure Deficiency"

LER 88-16 "Technical Specification Violation; Primary Containment Purge Performed Without Obtaining Sample Analysis and Acceptable Purge Rate Caused by Procedural Deficiency"

V. ADDITIONAL INFORMATION (cont.)

LER 89-15 "Operational Surveillance Procedure Deficiency Due to Inadequate Development and Review"

LER 89-18 "Operational Surveillance Procedure Deficiency Due to Inadequate Development of an ASME Section XI Relief Report"

LER 89-20 "Pump Vibration Acceptance Criteria Above Allowable Limits Due to Procedure Deficiency"

LER 90-14 "Technical Specification Violation--Service Water Pump Inservice Test Procedure Not in Compliance with ASME Section XI Requirements"

B: Identification of components referred to in this LER:

COMPONENT	803 FUNCTION	805 SYSTEM ID
Offgas Radiation Monitor	MON	IL
Offgas Isolation Valve	ISV	WF

C: Failed component identification: None.