NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98
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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

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TITLE (4)

Misinterpretation of Technical Specification Action Statement Requirements for Continuing Discharges of Radioactive Liquid Effluents During Periods of Radioactive Liquid Monitor Inoperability

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	07	96	96	043	00	11	27	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	000	20.2201(b)	20.2203(a)(2)(v)	[X] 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)	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	TELEPHONE NUMBER (Include Area Code)
J.M. Peschel, MP3 Nuclear Licensing Manager	(860)437-5840

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	MONTH	DAY	YEAR
[ ] YES (If yes, complete EXPECTED SUBMISSION DATE).	[X] NO				

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

On October 24th, 1996, while the plant was in Mode 5, an internal audit identified a potential inconsistency with the interpretation of technical specification requirements relating to the operability of the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) during radioactive effluent discharges. On November 7, 1996 this was confirmed. Discharges would be re-established following isolation by the monitor without declaring it inoperable and taking all of the Technical Specification required actions. Discharges were re-established without "best efforts" being made to restore the instrument to OPERABLE status within the required 30 days as required by Technical Specifications. Additionally, the inoperability of the monitor was not explained in the next Annual Radioactive Effluent Release Report as required by Technical Specifications. These circumstances are being reported pursuant to 10CFR50.73(a)(2)(i), as an event or condition that is prohibited by the Technical Specifications.

The root cause of this event was that the operators understanding and interpretation of Technical Specification compliance was incorrect.

Operating procedures will be revised to include the correct guidance for inoperable liquid effluent radiation monitors. Familiarization and formal training on this event will be provided to the operators.

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

I. Description of Event

On October 24th, 1996, while the plant was in Mode 5, an internal audit identified a potential inconsistency with the interpretation of technical specification requirements relating to the operability of the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) during radioactive effluent discharges. This was confirmed on November 7, 1996.

During discharges, the monitor frequently indicated activity levels exceeding the alarm setpoint, causing the discharge isolation valve (3LWS-HV77) to automatically close. The operators therefore perceived that the monitors were unreliable. Instead of immediately declaring the monitor inoperable and entering the Technical Specification action statement, discharges were allowed to proceed if the alarm and the closed discharge isolation valve could be reset. This is contrary to Technical Specification 3.3.3.9, "Radioactive Liquid Effluent Monitoring Instrumentation," ACTION B and ACTION 31 requirements, in that:

1. Discharges would be re-established, in accordance with procedural guidance, following closure of the discharge isolation valve prior to declaring the radiation monitor inoperable.

2. Discharges were re-established without "best efforts" being made to restore the instrument to OPERABLE status within the required 30 days.

3. The inoperability of the monitor was not explained in Annual Radioactive Effluent Release Reports. The inoperability of this instrument and why it was not corrected in a timely manner has not been reported for at least the last two years.

These circumstances are being reported pursuant to 10CFR50.73(a)(2)(i), as an event or condition that is prohibited by the Technical Specifications.

II. Cause of Event

An evaluation determined that the root cause associated with this historical noncompliance with Technical Specification operability requirements during liquid radioactive effluent discharges was:

1. The operator's understanding and interpretation of Technical Specification compliance pertaining to OPERABILITY of Radioactive Liquid Effluent Discharge Monitor 3LWS-RE70 was inadequate. It was common practice to perform Action Statement requirements prior to releases without declaring the radiation monitor inoperable.

Contributing to this was the inadequate effort made to investigate and correct as necessary the perceived reliability problems associated with the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) in a timely manner.

III. Analysis of Event

Technical Specifications Instrumentation Section 3.3.3.9 ACTION B, directs that with less than the minimum channels OPERABLE, exert "best efforts" to restore the instrument to OPERABLE status. It also directs that releases may continue if at least two independent samples are taken and analyzed. Additionally, the original release rate calculations and discharge line valve lineup are required to be independently verified by a second individual and that best efforts be made to restore the inoperable instrumentation to OPERABLE status within 30

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (*7)

I. Description of Event

On October 24th, 1996, while the plant was in Mode 5, an internal audit identified a potential inconsistency with the interpretation of technical specification requirements relating to the operability of the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) during radioactive effluent discharges. This was confirmed on November 7, 1996.

During discharges, the monitor frequently indicated activity levels exceeding the alarm setpoint, causing the discharge isolation valve (3LWS-HV77) to automatically close. The operators therefore perceived that the monitors were unreliable. Instead of immediately declaring the monitor inoperable and entering the Technical Specification action statement, discharges were allowed to proceed if the alarm and the closed discharge isolation valve could be reset. This is contrary to Technical Specification 3.3.3.9, "Radioactive Liquid Effluent Monitoring Instrumentation," ACTION B and ACTION 31 requirements, in that:

1. Discharges would be re-established, in accordance with procedural guidance, following closure of the discharge isolation valve prior to declaring the radiation monitor inoperable.

2. Discharges were re-established without "best efforts" being made to restore the instrument to OPERABLE status within the required 30 days.

3. The inoperability of the monitor was not explained in Annual Radioactive Effluent Release Reports. The inoperability of this instrument and why it was not corrected in a timely manner has not been reported for at least the last two years.

These circumstances are being reported pursuant to 10CFR50.73(a)(2)(i), as an event or condition that is prohibited by the Technical Specifications.

II. Cause of Event

An evaluation determined that the root cause associated with this historical noncompliance with Technical Specification operability requirements during liquid radioactive effluent discharges was

1. The operator's understanding and interpretation of Technical Specification compliance pertaining to OPERABILITY of Radioactive Liquid Effluent Discharge Monitor 3LWS-RE70 was inadequate. It was common practice to perform Action Statement requirements prior to releases without declaring the radiation monitor inoperable.

Contributing to this was the inadequate effort made to investigate and correct as necessary the perceived reliability problems associated with the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) in a timely manner.

III. Analysis of Event

Technical Specifications Instrumentation Section 3.3.3.9 ACTION B, directs that with less than the minimum channels OPERABLE, exert "best efforts" to restore the instrument to OPERABLE status. It also directs that releases may continue if at least two independent samples are taken and analyzed. Additionally, the original release rate calculations and discharge line valve lineup are required to be independently verified by a second individual and that best efforts be made to restore the inoperable instrumentation to OPERABLE status within 30

days. Also, it requires that the inoperability of the monitor be included in the next Annual Radioactive Effluent Report along with a statement explaining why the inoperability was not corrected in a timely manner.

Due to a perception that the radiation monitor was unreliable, portions of Technical Specification 3.3.3.9, Action Statement requirements were proceduralized such that the Shift Manager was authorized to bypass the radiation monitor if it was not in service rather than specifying that it should be declared inoperable. This perception was a result of two factors:

1. The computer generated discharge permit was established with a setpoint of twice the tank activity, or 8.0 x E-5 micro-curies/ml. The procedure for manually generated permits used the Radiological Environmental Monitoring and Offsite Dose Calculation Manual (REMODCM) setpoint of 2.2 x E-4 microcuries/ml. Because the radiation monitor setpoint was conservative compared to the REMODCM setpoint this led to frequent automatic isolations.

2. In accordance with the operating procedure flushing the discharge piping was not required in all cases. This also increased the likelihood of the radiation monitor causing spurious automatic closure of the discharge isolation valve.

After verifying that the procedurally required actions had been performed, the radiation monitor would then be declared inoperable, and the Action Statement entered. Taking the ACTION of the Technical Specifications prior to declaring the radiation monitor inoperable was contrary to the Limiting Conditions for Operation.

The radiation monitor alarm setpoint, determined during the discharge permit process, was conservative in that it is based upon 20 percent of the Technical Specification limit. It included additional conservatism as a result of generating the setpoint in accordance with the lower limit established in the computer generated discharge permit program. Therefore, the lower setpoint resulted in frequent trips that caused the operator to perceive the radiation monitor to be unreliable and to take inappropriate action. The effect on effluent discharges was to cause them to be performed in a more limiting, and therefore, more conservative fashion.

IV. Corrective Action

The following corrective actions have been taken:

1. A statement has been added to the Shift Turnover Report to clarify this Technical Specification requirement pending completion of training on this issue.

2. The computer generated discharge permit setpoint has been changed to agree with the REMODCM.

The following corrective actions will be taken:

1. A briefing will be provided to each shift concerning the circumstances and corrective actions surrounding this event by February 28th, 1997.

2. Operating procedures will be revised to include guidance for inoperable liquid effluent radiation monitors, to clarify notes on flushing piping between discharges, and on opening the discharge isolation valve by January 31st, 1997.

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

3. Training will be developed to provide the details and corrective actions to clarify Technical Specification applicability and the root causes behind this event by January 31st, 1997. This training will be provided for Operations Department personnel.

4. The inoperability of the Radioactive Liquid Effluent Discharge Monitor (3LWS-RE70) will be included in the next Annual Radioactive Effluent Report.

V. Additional Information

None

Similar Events

LER 94-013-00 "Main Steam Isolation Valves and Turbine Driven Auxiliary Feedwater Pump, Inadequate Technical Specifications for Mode Change." This License Event Report (LER) involved historical occasions when the plant misinterpreted Technical Specification surveillances that were required to be performed for operability of equipment, prior to entering Modes 4 and 3 during startup.

LER 96-004-00 "Auxiliary Feedwater Isolation Valves Noncompliance with Technical Specifications." This LER involved historical occasions when the plant misinterpreted a surveillance requirement. The plant had incorrectly used a Technical Specification surveillance requirement to take exception to Limiting Condition for Operation, when shutting the Auxiliary Feedwater pump discharge valves, at less than 10-percent power.

LER 96-038-00 "Violation of Technical Specifications Pertaining to High Pressure Safety Injection & Charging System Pumps"
This LER involved historical occasions when the plant misinterpreted Technical Specification surveillances that were required to be performed for operability of equipment, transitioning between Modes 4 and 5. The corrective actions associated with this LER have not been fully implemented at this time. Implementation of these actions will aid in preventing recurrences similar to those being reported.

Manufacturer Data

EIIS System Code:
Radioactive Liquid Waste System (Liquid Waste Management System) - WD

EIIS Component Code:
Radiation Monitor (Isolator, Radiation) - RB