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APPROVED AMENDMENT TO UNIT 1 TECHNICAL REQUIREMENTS MANUAL

EFFECTIVE DATE 03/21/2003

Replace the following pages of the Technical Requirements Manual with the enclosed pages. The revised pages are identified by Effective Date and contain vertical lines indicating the area of change.

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B 3.3.4 TRM Post Accident Monitoring (PAM) Instrumentation

BASES

TRO The primary purpose of the TRM PAM instrumentation is to display plant variables that provide information required by the control room operators during accident situations. The OPERABILITY of the TRM PAM instrumentation ensures that the identified information is available on selected plant parameters to monitor and assess important variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97 Revision 2, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant Conditions During and following an Accident," and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations". It should be noted that the Technical Specifications LCO 3.3.3.1 contains all Category 1, non-type A instruments and Regulatory Guide 1.97 Type A instrument (References 1 and 2). This TRO requires instruments outside of these criteria.

Table 3.3.4-1 identifies the following required Functions. Suppression Chamber Air Temperature provides a post accident indication of problems with the primary containment pressure suppression system. The Suppression Chamber Air Temperature loops are comprised of the following instruments for the purpose of this TRM. The recorders are the primary method of indication used by the operator during an accident; therefore, the PAM specification deals specifically with this portion of the instrument.

- | <u>LOOP A</u> | <u>LOOP B</u> |
|---------------|---------------|
| • TE-15703 | • TE-15725 |
| • TT-15703 | • TT-15725 |
| • TR-15795A | • TR-15795B |

Main Steam Safety/Relief Valve Position Indicators (Acoustic Monitors) provide indication when the valves are functioning. Alternate methods for monitoring SRV position are:

Suppression Pool Level

Suppression Pool Temperature

RPV Level

RPV Pressure

SRV Tailpipe Temperature (7 day restoration of requirement applies)

The single channels of REACTOR BUILDING VENT Noble Gas Monitor, Standby Gas Treatment System Vent Noble Gas Monitor, and Turbine Building Vent Noble Gas Monitor provide information regarding the release of radioactive materials to allow for early indication of the need to initiate action necessary to protect the public and for an estimate of the magnitude of any impending threat. For the Noble Gas Monitors the only required channels are the mid range and high range.

(continued)

B 3.3.4 TRM Post Accident Monitoring (PAM) Instrumentation

BASES (continued)

ACTIONS The Actions are defined to ensure proper corrective measures are taken in response to the inoperable components.

Action D requirements were determined by balancing the safety significance of the system with the impact of the actions on the operating unit. The loss of 1 or 2 channels of acoustic monitors is not safety significant providing the diverse and redundant alternate methods of determining SRV position are available. System components in the control room are restorable within 30 days without unit operation impact. Components located in containment require a unit shutdown to gain access to individual components. The system channels shall be restored to operable condition at earliest opportunity.

Noble gas monitoring may be interrupted for up to 30 minutes to perform particulate filter/iodine cartridge changeout required by TRM Table 3.11.2-1 without entering the TRO ACTIONS.

Components of alternate SRV position systems may be taken inoperable for routine surveillances and periodic maintenance providing the appropriate LCO requirements are met during this action statement. A TRM requirement of 7 days for restoring concurrent failures of the SRV tailpipe temperature monitoring for channels with failed acoustic monitors is added to ensure prompt restoration. Tailpipe temperature is the direct process monitoring, alternate method and is not covered by Technical Specification LCO's as are the other alternative methods.

TRS The TRSs are defined to be performed at the specified Frequency to ensure that the TRM PAM Function is maintained OPERABLE.

TRS 3.3.4.1

Performance of the CHANNEL CHECK once every 31 days ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel against a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between instrument channels could be an indication of excessive instrument drift in one of the channels or something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

(continued)

B 3.3.4 TRM Post Accident Monitoring (PAM) Instrumentation

BASES

TRS
(continued) Agreement criteria, which are determined by the plant staff based on an investigation of a combination of the channel instrument uncertainties, may be used to support this parameter comparison and include indication and readability. If a channel is outside the criteria, it may be an indication that the instrument has drifted outside its limit and does not necessarily indicate the channel is inoperable.

- REFERENCES
1. Regulatory Guide 1.97 Revision 2, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident,"
 2. "NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations
 3. Technical Specification Amendment No. 100 to License No. NPF-22 for failed Unit 2 "S" acoustic monitor.
 4. Technical Specification Amendment No. 169 to License No. NPF-14 for failed Unit 1 "S" acoustic monitor
 5. Proposed amendment No. 183 to License No. NPF-22 failed Unit 2 "J" acoustic monitor.
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B 3.11.2.6- Radioactive Gaseous Effluent Monitoring Instrumentation

BASES

TRO The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM (Reference 2) to ensure that the alarm/trip will occur prior to exceeding the release rate limits corresponding to dose rates above background to a member of the public at or beyond the site boundary to ≤ 500 mrem/yr to the total body or to ≤ 3000 mrem/yr to the skin. These release rate limits also restrict the corresponding thyroid dose rate above background to a child via the inhalation pathway to ≤ 1500 mrem/yr. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. (References 3 and 4)

OPERABILITY requires their alarm/trip setpoints set to ensure that the limits of Requirement 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the methodology and parameters in the ODCM.

This section of the TRM is also part of the ODCM (Reference 2).

ACTIONS

The Actions are defined to ensure proper corrective measures are taken in response to the inoperable components.

Low range Noble Gas channel readings from the local vent monitor may be used to meet the requirement for a Noble Gas grab sample and grab sample analysis.

Noble Gas release grab samples are not required to be taken when there are no releases via that pathway. Effluent flow is to be determined by vent flow instrumentation or by a vent flow estimate every 4 hours. Continuous sample collection shall be on the same basis as described in the Bases for TRO 3.11.2.1

Monitoring may be interrupted for up to 30 minutes to perform particulate filter/iodine cartridge changeout required by TRM Table 3.11.2-1 without entering the TRO ACTIONS.

(continued)