

TABLE 3.3-10

ACCIDENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>REQUIRED NO. OF CHANNELS</u>	<u>MINIMUM CHANNELS OPERABLE</u>
1. Containment Pressure	2	1
2. Reactor Coolant Temperature - T <sub>HOT</sub> and T <sub>COLD</sub> (Wide Range)	2	1
3. Reactor Coolant Pressure - Wide Range	2	1
4. Pressurizer Water Level	2	1
5. Steam Line Pressure	2/steam generator	1/steam generator
6. Steam Generator Water Level - Narrow Range	2/steam generator	1/steam generator
7. Refueling Water Storage Tank Water Level	2	1
8. Auxiliary Feeder Flow Rate	2/steam generator	1/steam generator
9. Reactor Coolant System Subcooling Margin Monitor	2 ***	1
10. PORV Position Indicator*	2/valve	1/valve
11. PORV Block Valve Position Indicator**	1/valve	1/valve
12. Safety Valve Position Indicator	2/valve	1/valve
13. Containment Water Level (Wide Range)	2	1
14. In Core Thermocouples	4/core quadrant	2/core quadrant
15. Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)	1	1
16. Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)	1/steam line	1/steam line
17. Containment Atmosphere - High Range Monitor (EMF-51a or 51b)	1	1
****18. Reactor Vessel Level Instrumentation		
a. Wide Range	2	1
b. Narrow Range	2	1

8408030135 840731  
PDR ADOCK 05000369  
P PDR

\* Not applicable if the associated block valve is in the closed position.

\*\* Not applicable if the associated block valve is in the closed position and power is removed.

\*\*\* Only one channel per unit is required until the end of the first refueling outage following 1/86 for each unit.

\*\*\*\* Not applicable until the beginning of Cycle 4 for Unit 1 and Cycle 3 for Unit 2.

TABLE 4.3-7

## ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Containment Pressure	M	R
2. Reactor Coolant Temperature - $T_{HOT}$ and $T_{COLD}$ (Wide Range)	M	R
3. Reactor Coolant Pressure - Wide Range	M	R
4. Pressurizer Water Level	M	R
5. Steam Line Pressure	M	R
6. Steam Generator Water Level - Narrow Range	M	R
7. Refueling Water Storage Tank Water Level	M	R
8. Auxiliary Feedwater Flow Rate	M	R
9. Reactor Coolant System Subcooling Margin Monitor	M	R
10. PORV Position Indicator	M	R
11. PORV Block Valve Position Indicator	M	R
12. Safety Valve Position Indicator	M	R
13. Containment Water Level (Wide Range)	M	R
14. In Core Thermocouples	M	R
15. Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)	M	R
16. Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)	M	R
17. Containment Atmosphere - High Range Monitor (EMF-51a or 51b)	M	R
18. Reactor Vessel Level Instrumentation		
a. Wide Range	M	R
b. Narrow Range	M	R

MCGUIRE - UNITS 1 and 2

3/4 3-57

## ATTACHMENT II

### Justification and Safety Evaluation

The current McGuire Technical Specifications for Units 1 & 2 contain requirements on the operability and surveillance of the existing Core Exit Thermocouple (CET) System and the Subcooling Margin Monitoring (SMM) System. In addition, a Reactor Vessel Level Instrumentation System (RVLIS) has been implemented on Unit 1 and an identical system will be installed on Unit 2. The operability and surveillance requirements for this system are being incorporated in the McGuire Technical Specifications by this submittal. The approval of these Technical Specifications is also expected to apply to Unit 2.

The primary display for the Subcooling Margin Monitor is a CRT graphic which can be displayed on the monitors located on the control boards. This display is generated through the Plant Operator Aid Computer. The CRT graphics provide an on demand display of conservative margin to saturation conditions. The single failure criteria for this system has been addressed by the use of qualified redundant temperature and pressure readouts in the control room which can be used in conjunction with steam tables to determine saturation margins. However, as a result of the McGuire Control Room Review, Duke Power has committed to install an additional SMM system which does not depend on the Plant Operator Aid Computer. The additional SMM system will be installed during the first refueling outage after January 1986 on each unit. Table 3.3-10 of the Technical Specifications has been modified to reflect the increase in the required number of channels for the SMM system from 1 to 2.

The surveillance requirements for the RVLIS are similar to those for other Accident Monitoring Instrumentation. These requirements are described in Table 4.3-7.

The RVLIS System has been functionally tested under hot and cold conditions and no significant deviations of the as-built system from the system design have been identified. The proposed Technical Specifications for the RVLIS will not be applicable until cycle 4 for Unit 1 and cycle 3 for Unit 2 in order to gain operational experience with the RVLIS and remove any undetected system deficiencies.

The inadequate core cooling monitoring instrumentation has been installed according to the requirements of NUREG 0737, II.F.2, to enhance the power plant safety. The proposed Technical Specifications are appropriate and similar to those applicable to other Accident Monitoring systems.

### ATTACHMENT III

#### Analysis of Significant Hazards Considerations

As required by 10 CFR 50.91, this analysis is provided concerning whether the proposed modifications of the Technical Specifications involve significant hazards considerations, as defined by 10 CFR 50.92.

The proposed modification of the Technical Specifications involves expanding the Technical Specifications to cover the recently installed Reactor Vessel Level Instrumentation System and inclusion of both the channels of the Sub-cooling Margin Monitoring System.

These systems are designed and will be installed in accordance with the requirements of NUREG-0737 and Generic Letter 82-28. The proposed Technical Specifications for the operability and surveillance of the RVLIS and SIM System are for ensuring proper and accurate performance of these systems. The proposed Technical Specifications do not relax any existing limits, instead additional requirements are proposed on newly installed equipment.

The proposed amendments would not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- 3) Involve a significant reduction in a margin of safety.

Based upon the preceding analysis, Duke Power Company concludes that the proposed amendments do not involve a significant hazard consideration.