

INSTRUMENTATION

TRAVERSING IN-CORE PROBE SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.7.7. The traversing in-core probe system shall be OPERABLE with:

- a. Five movable detectors, drives and readout equipment to map the core, and
- b. Indexing equipment to allow all five detectors to be calibrated in a common location.

APPLICABILITY: When the traversing in-core probe is used for:

- a. Recalibration of the LPRM detectors, and
- *b. Monitoring the APLHGR, LHGR, MCPR, or MFLPD.

ACTION:

With the traversing in-core probe system inoperable, suspend use of the system for the above applicable monitoring or calibration functions. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.7 The traversing in-core probe system shall be demonstrated OPERABLE by normalizing each of the above required detector outputs within 72 hours prior to use for the above applicable monitoring or calibration functions.

*Only the detector(s) in the required measurement location(s) are required to be OPERABLE.

Otherwise; with four traversing in-core probe machines, an inaccessible LPRM string may be calibrated using a traversing in-core probe scan from a symmetric string provided that an 'A' type control rod pattern is in use and that the total core TIP asymmetry is less than 6% (standard deviation).

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INSTRUMENTATION

BASES

MONITORING INSTRUMENTATION (Continued)

3/4.3.7.5 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring system ensures that sufficient information is available to detect and assess important variables and to provide information consistent with the recommendations for Light Water Cooled Nuclear Reactors and Following an Accident. The Learned Task Force

3/4.3.7.6

The specification allows use of substituted TIP data from symmetric channels if the control rod pattern is symmetric since the TIP data is adjusted by the plant computer to remove machine dependent and power level dependent bias. If an inoperable TIP channel does not have a symmetric counterpart, the source of data for the substitution may be a computer calculated data set which is normalized to available real data. This ensures that the operator is able to monitor the reactor core at very low power levels during startup and power levels, reactivity additions should not be made until sufficient information is available to the operator. When the intermediate level information is available without the SRMs they can be retracted.

3/4.3.7.7 TRAVERSING IN-CORE PROBE SYSTEM

The OPERABILITY of the traversing in-core probe system with the specified minimum complement of equipment ensures that the measurements obtained from use of this equipment accurately represent the spatial neutron flux distribution of the reactor core.

3/4.3.7.8 CHLORINE AND AMMONIA DETECTION SYSTEM

The OPERABILITY of the chlorine and ammonia detection system ensures that an accidental chlorine and/or ammonia release will be detected promptly and the necessary protective actions will be automatically initiated to provide protection for control room personnel. Upon detection of a high concentration of chlorine and/or ammonia, the control room emergency ventilation system will automatically be placed in the recirculation mode of operation to provide the required protection. The detection systems required by this specification are consistent with the recommendations of Regulatory Guide 1.95 "Protection of Nuclear Power Plant Control Room Operators against an Accidental Chlorine Release", February 1975.

3/4.3.7.9 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility fire protection program.