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FERMI 2 TECHNICAL REQUIREMENTS MANUAL – VOL I
Revision 126 dated 07/29/2021

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**Note: The changes above reflect those justified and described in
LCR# 21-006-TRM.**

END

Fermi 2

Technical Requirements Manual

Volume I

**DTE
Electric**

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TR B3.3 INSTRUMENTATION

TR B3.3.4.2 Traversing In-Core Probe (TIP) System

BASES

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.

The requirements for the OPERABILITY of the TIP System are as follows for the different applicabilities:

For recalibration of the LPRM detectors, OPERABILITY requires:

- a. Movable detectors, drives and readout equipment to map the core, and
- b. Indexing equipment to allow all OPERABLE detectors to be calibrated in a common location.
- c. Valid data from at least 22 of 43 radial locations from OPERABLE detectors.

For monitoring the APLHGR, LHGR, or MCPR, OPERABILITY only requires OPERABLE detector(s) in the required measurement location(s).

The TIP system OPERABILITY is demonstrated by normalizing all OPERABLE probes (i.e., detectors) prior to performing an LPRM calibration function. Monitoring core thermal limits may involve utilizing individual detectors to monitor selected areas of the reactor core, thus all detectors may not be required to be OPERABLE. The OPERABILITY of individual detectors to be used for monitoring is demonstrated by comparing the detectors(s) output with data obtained during the previous LPRM calibration.
