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U. S. Nuclear Regulatory Commission  
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Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Unit 2  
SPECIAL REPORT  
UNIT 2 REACTOR COOLANT INVENTORY TRACKING SYSTEM

The attached special report is submitted in accordance with Donald C. Cook Nuclear Plant Technical Specification 3.3.3, Post Accident Monitoring Instrumentation. The report is required due to the inoperability of Unit 2 Reactor Coolant Inventory Tracking System, Channel B, for a period in excess of 30 days.

There are no regulatory commitments included in this submittal.

Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Supervisor, at (269) 466-2649.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lawrence J. Weber".

Lawrence J. Weber  
Plant Manager

RAJ/jen

Attachment

c: J. L. Caldwell, NRC Region III  
K. D. Curry – AEP Ft. Wayne, w/o attachment  
J. T. King, MPSC – w/o attachment  
MDEQ – WHMD/RPMWS – w/o attachment  
NRC Resident Inspector  
D. W. Spaulding, NRC Washington DC

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## **REACTOR COOLANT INVENTORY TRACKING SYSTEM SPECIAL REPORT**

Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant, is submitting this special report concerning an inoperable period exceeding 30 days for a channel of the Unit 2 Reactor Coolant Inventory Tracking System (RCITS). This special report is required by Technical Specification (TS) 3.3.3, Post Accident Monitoring Instrumentation, Condition B, under required Action B.1.

### **ACTION TAKEN**

On October 3, 2005, at approximately 1525 hours, it was identified that 2-NLI-131, reactor vessel train B wide range water level indicating instrument, had failed and was declared inoperable.

TS 3.3.3, Condition B, Action B.1, requires action per TS 5.6.6, "Post Accident Monitoring Report," if TS 3.3.3, Condition A.1, restore channel to operable status, is not completed within 30 days of channel inoperability. The channel has not been returned to operability at this time, and has exceeded 30 days.

This information satisfies the requirement to submit a report within 14 days following 30 days of channel inoperability, per TS 5.6.6.

### **PRE-PLANNED ALTERNATE METHOD OF MONITORING**

The RCITS provides plant operators with the information needed to assess void formation in the reactor vessel head region and the trend of liquid level in the reactor vessel plenum.

The RCITS consists of two redundant channels, each consisting of upper plenum level, narrow range level, and wide range (dynamic range) level instrumentation. During the inoperability of RCITS Channel B wide range instrumentation, the redundant Channel A wide range, narrow range and upper plenum level instrumentation was operable, and available for indication.

The removal of Channel B from operable status eliminated a means of redundant indication for the wide range monitoring. The wide range indication is called upon to determine void content, and is used to support decision making within the emergency operating procedures while the reactor coolant pumps are operating.

The alternate method of monitoring is the redundant Channel A. For the purpose of determining degraded core cooling status, the reactor coolant system (RCS) subcooling and core exit thermocouple temperature indications are used to corroborate excessive voiding in the RCS. These diverse indications are used in conjunction with RCITS wide range level in plant emergency operating procedures to support plant recovery from emergency conditions.

### **CAUSE OF INOPERABILITY**

The cause of the Channel B, wide range instrument 2-NLI-131 low indication, is a failed instrument transmitter.

### **PLANS AND SCHEDULES FOR RESTORING THE SYSTEM TO OPERABLE STATUS**

RCITS channel B was declared inoperable on October 3, 2005. The instrument transmitter cannot be replaced with the unit on line. It will be replaced or repaired at the first planned outage of sufficient duration, but not later than restart from the Unit 2 Cycle 16 refueling outage scheduled for April 2006. This repair schedule is consistent with plans made and included within our recent 14 day report (AEP:NRC:5333), Unit 2 Reactor Coolant Inventory Tracking System, submitted October 5, 2005, for the same instrument.