

August 23, 2012

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Docket No.: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant
NOTIFICATION OF IMPACT TO PHYSICS TESTING RESULTS FROM FUEL
VENDOR MODELING ERROR

Reference:

1. Letter from M. H. Carlson, Indiana Michigan Power Company (I&M), to U. S. Nuclear Regulatory Commission (NRC) Document Control Desk, "Unit 1 Cycle 23 End of Life Moderator Temperature Coefficient Limit Report," AEP-NRC-2011-37, dated September 14, 2011, NRC Agencywide Documents Access and Management System (ADAMS) Accession No. ML11270A095.

By Enclosure 3 of Reference 1, I&M, the licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, committed to update the NRC with the results of the fuel vendor analyses regarding the physics testing modeling error identified in the Unit 1 Cycle 23 End of Life Moderator Temperature Coefficient Limit Report.

The fuel vendor's analysis concluded that, for D. C. Cook Unit 1 Cycles 21, 22, 23, and 24 and Unit 2 Cycles 16, 17, 18, and 19, the results from each unit and cycle's specific Subcritical Physics Testing (SPT) are considered valid.

This was determined by the examination of additional (other than SPT) parameters that corroborate the measured Isothermal Temperature Coefficient (ITC). The measured vs. predicted Inverse Count Rate Ratio for every sub critical rod worth measurement application at CNP was examined to confirm the constructed core is accurately represented by the designed core. In addition, the actual All Rods Out (ARO) Boron Endpoint was compared to the predicted ARO Boron Endpoint; their consistency provides assurance that the ITC value is close to the predicted ITC.

ADD
NRR

This letter contains no new or revised regulatory commitments.

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

Sincerely,



Joel P. Gebbie
Site Vice President

KMH/jmr

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