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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Donald C. Cook Nuclear Plant Units 1 and 2
Response to Request for Additional Information Regarding Commitment
for Implementation of Multi-Unit/Multi-Source Dose Capability

References:

1. U.S. Nuclear Regulatory Commission (NRC) Fukushima Near-Term Task Force Report, "Recommendations for Enhancing Reactor Safety in the 21st Century: the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident", dated July 12, 2011, (ADAMS Accession No. ML112510271).
2. Letter from Joseph E. Pollock, Nuclear Energy Institute (NEI), to James T. Wiggins, Director of the NRC Office of Nuclear Security Incident and Response, "Industry Implementation of Multi-unit Dose Capability", dated January 28, 2013, (ADAMS Accession No. ML13028A200).
3. Letter from James T. Wiggins, NRC, to Joseph E. Pollock, NEI, requesting additional information on licensees' multi-unit dose capability, dated February 27, 2013, (ADAMS Accession No. ML13029A632).
4. Letter from Joseph E. Pollock, NEI, to James T. Wiggins, NRC, "Commitment for Implementation of Multi-Unit Dose Capability", dated March 14, 2013, (ADAMS Accession No. ML13073A522).

This letter provides Indiana Michigan Power Company's (I&M), licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, response to the Request for Additional Information (RAI) from the NRC regarding the current and anticipated capability of I&M to perform multi-unit/multi-source dose assessment in connection with radiological release events at CNP.

In Reference 1, the NRC's Near-Term Task Force highlighted a gap in the capability of United States commercial nuclear power plant licensees to perform multi-unit/multi-source dose assessments. In Reference 2, NEI reported to the NRC the results of a survey of licensees' current ability to perform multi-unit/multi-source dose assessments, those licensees' anticipated time

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frames for obtaining multi-unit/multi-source dose assessment capability, and the compensatory measures to be employed by licensees in the interim period before obtaining multi-unit/multi-source dose assessment capability. In Reference 3, the NRC requested more detailed information regarding the current and anticipated capabilities of licensees to perform multi-unit/multi-source dose assessments. In Reference 4, NEI informed the NRC that the licensees would provide the NRC with the information requested in Reference 2.

In accordance with Reference 4, I&M hereby provides the following information regarding the ability to perform offsite dose assessment during an event involving radiological releases from multiple units or sources at CNP:

RAI 1

Summarize I&M's current capability to perform multi-unit/multi-source dose assessment during an event involving releases from multiple units or sources at CNP.

I&M RESPONSE TO RAI 1

I&M's existing software for assessing the radiological impact of accidents at CNP does not have integrated, simultaneous multi-unit/multi-source dose assessment capability. Currently, I&M uses a PC-based software program, Meteorological Information Dose Assessment Software (MIDAS) from ABS Consulting, Inc., for dose assessment in connection with radiological release events at CNP. MIDAS calculates total effective dose equivalent and thyroid doses at any affected location within 50 miles of CNP. MIDAS derives source term information from CNP effluent monitors, reactor coolant system or containment samples, field monitoring teams, or a default design basis accident scenario.

The version of MIDAS currently in use at CNP can; however, be used to perform dose calculations for individual accidents at CNP; summing those individual dose calculations can approximate the dose received from radiological release events involving multiple units or sources. Further, the version of MIDAS in use at CNP has the capability to perform dose projections from multiple release points at a single unit. MIDAS can also perform dose projections by calculating dispersion of the released radiological material as it travels downwind and estimating the resulting concentrations of that material using event trees based on NUREG-1228, "Source Estimation During Incident Response to Severe Nuclear Power Plant Accidents", and NRC Response Technical Manual (RTM) 96.

RAI 2

Describe I&M's anticipated schedule to establish multi-unit/multi-source dose assessment capability on an interim or permanent basis, providing due dates for key actions or milestones.

I&M RESPONSE TO RAI 2

I&M has purchased from ABS Consulting Inc., a newly-available upgrade (MIDAS-NU version: 1.5.16.022113) to CNP's existing MIDAS software that will provide integrated multi-unit/multi-source dose assessment capability. This MIDAS software upgrade will provide simultaneous dose

assessment capability for radiological release events involving multiple units at CNP, or up to five individual radiological releases at different locations (such as spent fuel pools and dry cask storage locations) at CNP.

I&M has developed the following projected time line for ensuring full implementation of simultaneous multi-unit/multi-source dose assessment capability at CNP by December 31, 2014:

Review Emergency Response procedures for potential changes due to the new MIDAS software.	09/01/2013
Develop testing criteria and complete acceptance testing for the new MIDAS software.	10/01/2013
Develop training material for the Emergency Response Organization (ERO) team members on the new MIDAS software.	10/01/2013
Perform 50.54q Review for transition to the new MIDAS software.	11/01/2013
Complete familiarization training for MIDAS users in the Emergency Operations Facility (EOF) and Technical Support Center (TSC) on the new MIDAS software.	12/31/2013
Complete familiarization training on the new MIDAS software to Emergency Response team members that fill oversight positions.	12/31/2013
Complete familiarization training on the new MIDAS software for MIDAS users in the Control Rooms.	04/30/2014
Complete training of all MIDAS users on the new MIDAS software.	05/31/2014
Install MIDAS-NU version 1.5.16 on all dose assessment computers.	05/31/2014

Please note that the dates within the projected timeline above are not intended to serve as hard deadlines or firm commitments for completion of the corresponding milestones; rather, they are intended to demonstrate I&M's compliance with the NRC's requirement of full implementation of multi-unit/multi-source dose assessment capability by December 31, 2014.

RAI 3

Describe how the multi-unit/multi-source dose assessment capability implementation schedule described above will be tracked by I&M.

I&M RESPONSE TO RAI 3

The milestones and dates within the projected timeline above have been entered into I&M's Action Tracking ActionWay Program and will be tracked under GT 2013-8929.

This letter contains no new or revised commitments. If you have any questions, please contact Mr. Michael K. Scarpello at (269) 466-2649.

Sincerely,



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Site Vice President

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