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 HUNTER, R.S. Indiana & Michigan Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards update to util activities re NUREG-0737, Item III, A.2.2, "Emergency Preparedness Meteorological Data."

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 TITLE: Response to NUREG -0737/NUREG-0660 TMI Action Plan Rgmts (OL's)

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NRR/DSI DIR	24	1	1	NRR/DSI/ADCP	25	1	1
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NRR/DSI/AEB		1	1	NRR/DSI/ETSB		1	1
NRR/DSI/RAB		1	1	NRR/DST DIR	30	1	1
NRR/DST/ADGP	31	1	1	NRR/DST/ADT	32	1	1
REG FILE	04	1	1	RGN3		1	1
EXTERNAL: ACRS	34	10	10	FEMA-REP DIV		1	1
INPO, J. STARNES		1	1	LPDR	03	2	2
NRC PDR	02	1	1	NSIC	05	1	1
NTIS		1	1				

INDIANA & MICHIGAN ELECTRIC COMPANY

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August 31, 1982
AEP:NRC:0678B

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
NUREG-0737, ITEM III.A.2.2 EMERGENCY
PREPAREDNESS METEOROLOGICAL DATA

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

The attachment to this letter provides you with an update on our activities relating to Item III.A.2.2 of NUREG-0737, "Emergency Preparedness-Meteorological Data" as committed to in our letter No. AEP:NRC:0678A dated June 28, 1982.

This document has been prepared following Corporate Procedures which incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Very truly yours,



R. S. Hunter
Vice President

RSH/sag
Attachment

cc: John E. Dolan - Columbus
M. P. Alexich
R. W. Jurgensen
W. G. Smith, Jr - Bridgman
R. C. Callen
G. Charnoff
Joe Williams, Jr.
NRC Resident Inspector at Cook Plant - Bridgman

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THE UNITED STATES OF AMERICA
DO hereby certify that
[illegible]
[illegible]
[illegible]

WITNESSETH
[illegible]

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the said State, at the City of [illegible], this [illegible] day of [illegible], 19[illegible].

GOVERNOR
[illegible]

NOTARY PUBLIC

My commission expires on the [illegible] day of [illegible], 19[illegible].

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the said State, at the City of [illegible], this [illegible] day of [illegible], 19[illegible].

NOTARY PUBLIC

My commission expires on the [illegible] day of [illegible], 19[illegible].

NOTARY PUBLIC

My commission expires on the [illegible] day of [illegible], 19[illegible].

ATTACHMENT TO AEP:NRC:0678B

ITEM III.A.2.2. (EMERGENCY PREPAREDNESS-METEOROLOGICAL DATA)

This item is concerned with three subjects: (1) Meteorological Measurements Program, (2) Class A Dose Assessment Capability, and (3) Class B Dose Assessment Capability.

METEOROLOGICAL MEASUREMENTS PROGRAM

We have been informed that the NRC has recently conducted a series of tests along Lake Michigan at the Kewaunee Nuclear Plant between May 28 and June 8, 1982. It is our understanding that the purpose of these studies was to evaluate different meteorological dispersion models and to determine the optimum number of meteorological stations that would provide usable data for these models. Currently, the NRC requirements for supplementary meteorological information are not clearly defined. NUREG-0654 and Regulatory Guide 1.23 discuss the subject but do not give direct guidelines to be followed. We plan to review the report on the NRC Kewaunee study when we receive it. We plan to await further clarification and NRC guidance on this matter prior to considering the desirability of system modifications for the Cook Plant.

CLASS A DOSE ASSESSMENT CAPABILITY

Class A dose assessment capability exists through the use of Pickard, Lowe and Garrick's (PL&G) ACRISO program to the extent described in AEP:NRC:0678A. The application of the Class A model to the Cook Plant is limited in that it does not account for complex flow patterns that may occur during a lake breeze situation and it does not account for Plant-specific radiation monitor and accident default information.

In order to model complex flow patterns, PL&G is proposing a modified Gaussian plume segment model called MIDRAC which they classify as an enhanced Class A model. We have this proposal under evaluation. The MIDRAC subroutine would utilize a real-time site-specific algorithm for use in turbulent internal boundary layer and lake breeze calculations (see discussion under Class B Dose Assessment Capability).

We are also evaluating PL&G's proposal to augment our Class A capability by updating the ACRISO program file to contain in-Plant radiation monitor and accident default information. When we have completed the upgrading of our model, we will provide you with a description of our Class A dose assessment capability.

CLASS B DOSE ASSESSMENT CAPABILITY

We are presently evaluating proposals from two consultants to provide us with Class B emergency diffusion and dose calculations. Both consultants have indicated that they do not have a Class B model that fully meets the NRC requirements as defined in Revision 1 of NUREG-0654; however, an enhanced Class A model is available which will consider site specific phenomena that affect plume transport. We expect that operational implementation of this dose assessment capability at the Cook Plant will take place by the June 1983 date given in NUREG-0737, and prior to this date we will provide you with a description of our plans for a Class B dose assessment capability.

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