INDIANA & MICHIGAN ELECTRIC COMPANY

P. O. BOX 18
BOWLING GREEN STATION
NEW YORK, N. Y. 10004

September 22, 1982
AEP:NRC:0586A

Donald C. Cook Nuclear Plant Unit Nos. 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
NOBLE GAS RADIATION MONITORS -
STEAM DUMP TO ATMOSPHERE MONITORS

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

Dear Mr. Denton:

This letter and Attachment 1 transmits our response to Mr. Varga's letter of November 20, 1981 requesting information on the Radiation Monitoring System at the Donald C. Cook Nuclear Plant. Attachment 1 contains the additional information requested concerning the range of the steam dump to atmosphere monitor as required by NUREG 0737, Item II.F.1 Attachment 1.

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. F. Hering
Vice President

/sag
Attachment

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

ATTACHMENT 1

TO

AEP:NRC:0586A

The Model SA-11 detector, used to monitor steam releases through the Steam Generator's Power Operated Relief Valve (PORV), has a vendor supplied value for the maximum range equivalent to approximately 110 uCi/cc noble gas which is based on a particular vendor geometry calibration that is not representative of the proposed plant installation.

As Mr. Varga's letter points out, NUREG-0737, Item II.F.1 requires an upper range of 1000 uCi/cc. We have completed a mock-up and field geometry calibration for the SA-11 detector. Based upon linearity and mock up measurements, the Xe-133 range for this monitor meets the requirements of NUREG-0737. This monitor can accurately detect concentrations in the Steam Generator PORV line to 2×10^5 uCi/cc. The data and calculations to justify the use of the Eberline SA-11 detector system at the Donald C. Cook Plant have been documented in a report prepared by Research Concepts, Inc., our consultant for the calibration of this monitor.

A typographical omission on Table 1 entitled "Equipment Description" which was attached to our letter AEP:NRC:00586 dated July 10, 1981, has resulted in a question in Mr. Varga's letter as to whether atmospheric steam dump valve discharges are being monitored. This table should indicate that the monitoring of the effluent is on the Steam Generator Safety/Relief Valves which means Safety Valves and Atmospheric Steam Dump Valves on Main Steam Leads #1, 2, 3, and 4. The detector will monitor the effluents in the PORV line to the atmosphere.