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 RECIP. NAME: DENTON, H.R. RECIPIENT AFFILIATION: Office of Nuclear Reactor Regulation, Director

SUBJECT: Clarifies 810710 & 820407 submittals re NUREG-0737, Item II.F.1, Attachment 1, "Noble Gas Monitoring" & requests extension of time from implementation dates for Attachments 1 & 3, "High Range Containment Monitor."

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November 5, 1982

AEP:NRC:0705

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 II.F.1 - Attachments 1 and 3

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

Dear Mr. Denton:

This letter serves to clarify our submittals dated July 10, 1981 (AEP:NRC:0586) and April 7, 1982 (AEP:NRC:0578D) with regard to NUREG-0737, Item II.F.1-Attachment 1 ("Noble Gas Monitoring") and to request an extension of time from the implementation dates for Item II.F.1 - Attachments 1 and 3 ("High Range Containment Monitor") to which our earlier letters had committed us.

The first point of clarification concerns the function of the lower containment radiation monitors, tag numbers ERS-1300 and 1400 in Unit No. 1 and ERS-2300 and 2400 in Unit No. 2. Table 1 of the Attachment to AEP:NRC:0586 identified six sets of radiation monitors being provided in order to fulfill the requirements of NUREG-0737 Items II.F.1-Attachments 1 and 3. One of the sets of monitors corresponds to the lower containment radiation monitors. The first function of these devices is to monitor the containment lower compartment atmosphere during normal plant operation. The second function of the devices is to monitor post-accident lower compartment radiation levels following decay of the containment pressure. The ability of the monitors to perform their post-accident function is physically limited by the five (5) psig pressure limit of the gamma scintillator window on the iodine detector. At present, procedural control would limit use of the devices to periods of time when containment pressure was less than three (3) psig. Indiana & Michigan Electric Company (I&MECo.) believes that use of these monitors post-accident following the decay of containment pressure is acceptable and consistent with the requirements of NUREG-0737 because of the somewhat redundant functions performed by

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1. The first of these is the fact that the
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the Committee.

the devices and the unit vent monitor in evaluation of plant effluents and because of the limited period of time when the devices would not be available for post-accident service. A revised page 1 of Table 1 of the Attachment to AEP:NRC:0586 is attached for your convenience.

The second point of clarification is related to a change in the tag numbers given in Table 1 of the Attachment to AEP:NRC:0578D. The correct tag numbers for the post-accident high range containment area monitors are VRA-1310 and 1410 for Unit No. 1 and VRA-2310 and 2410 for Unit No. 2. A revised Table 1 of the Attachment to AEP:NRC:0578D is attached for your convenience.

In our letter dated December 12, 1981, AEP:NRC:0652, I&MECo. committed to an implementation date for Item II.F.1 - Attachments 1 and 3 of thirty days after startup from the 1982 refueling outage for each Unit. For Unit No. 1 this implementation date would be November 9, 1982. For reasons detailed below, I&MECo. requests further extension of time to implement the requirements of Item II.F.1 - Attachments 1 and 3.

Several problems have been experienced with Radiation Monitoring System (RMS) equipment installed to fulfill the requirements of Item II.F.1-Attachment 1. The specific problems are as follows:

- (1) Externally mounted RMS detectors have been provided to monitor noble gas activity at the main steam safety valves/power operated relief valve on each of the four secondary loops. The electronic interface boxes for the detectors on loops 2 and 3 in Unit No. 1, tag numbers MRA-1701 and MRA-1702, are experiencing failures due to high temperatures, even though the interface boxes were purchased with a high operating temperature specification. The equipment supplier, Eberline, has been contacted and both I&MECo and Eberline are presently investigating this matter. Should the temperatures in the vicinity of the two interface boxes be found to be unacceptably high, then the boxes will have to be relocated. The preliminary estimate for design and physical relocation of the boxes is three weeks.
- (2) The steam jet air ejectors' and gland steam condenser vent monitors are still encountering moisture problems, even after installation of moisture separators and heat tracing. A redesign or modification of the moisture removal system for these monitors is presently being investigated. The preliminary estimate for redesign and/or modification is at least six weeks.

With regard to Item II.F.1-Attachment 3, "High Range Containment Monitor", I&MECo. is aware of the interim 10 CFR 50.55(e)

report submitted by Consumers Power Co. concerning quality program and manufacturing deficiencies affecting radiation monitoring equipment supplied by Victoreen for use at the Midland Nuclear Generating Station. This matter is currently under investigation by American Electric Power Service Corporation (AEPSC) in accordance with company procedures related to 10 CFR 21 "Defect/Noncompliance" reporting.

The scheduling uncertainties which we now face and which are, largely, outside our control, prevent us from providing you with a date for completion of the system. We anticipate providing you with a new completion date by December 31, 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

/os

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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REVISED TABLE 1 EQUIPMENT DESCRIPTION (AEP:NRC:0586)

Item No.	Description	No. Per Unit #1 #2		Safety Class	Control Action Trip/Alarm	Detector Type	Instr. Range	RE: Isotope	Notes and/or
1	Post Accident High Range Containment Area Monitor	2	2	IE	Alarm	Ion Chamber	1 to 10 ⁷ R/HR	Photons above 60 KeV (Gross Radiation)	Mfg: VICTOREEN Model: 877-1 Detector 876A-1 Readout 879-1 Opt. Isol. Display: Continuous, Display on Demand & CRT Power: CLASS IE, Train Oriente
2	Lower Containment Radiation Monitor (Airborne) (Off Line) Note (1)	2	2	NON-IE	Trip & Alarm	B Scint + G.M. B Scint B Scint	10 ⁻⁷ to 10 ⁵ uc/cc 4% (4-pi) eff. @364keV 6% (4-pi eff SrY ⁹⁰)	Noble Gas Iodine Particulate	Mfg: EBERLINE Model: SPING-4 Display: Display on Demand & CRT Power: Supplied by U.P.S.
3	Unit Vent Effluent Radiation Monitor (Airborne) (Off Line)	1	1	NON-IE	Trip & Alarm	-----same as #2 above-----			

[Note (1) Monitoring of Post Accident Conditions inside containment can be initiated only when the containment pressure decays below 3 psig and the supply and return sample lines are unisolated.]

REVISED ENCLOSURE TO AEP:NRC:0578D

TABLE 1

<u>NUREG-0737</u>	<u>SYS. EQPT. NAME</u>	<u>PLT. ID</u>	<u>EQ. REQ</u>	<u>SYS. COMP. EVAL. WORKSHEET REF. FROM AEP NRC:00578B (NOTE 1)</u>
I.D.2	Plt. Sfty Parameter Diaplay	QR-131	No	Not Required
II.B.1	RCS Vents	NSO-21 to 24 NSO-61 to 64	Yes	Later
II.B.3	Post Accident Sampling	None Assigned	No	Not required
II.D.3	Valve Position Indication	QR-107 Lmt. Swtchs. On NRV-151, 152, 153	Yes Yes	Later LS-1 for Limit Switches
II.E.1.2	AEW Flow Ind.	FFI-210,220, 230,240	Yes	Later
II.E.4.2.2	Cont. Isol. Dependability	QCR-301 (Note 2)	Yes	Later
II.F.1.1	Noble Gas Monit.	ERS-1300,1400 2300 & 2400 [(Note 3)] VRS-1500 & 2500 SRA-1800, 1900, 2800, 2900 MRA-1601, 1602, 1701, 1702, MRA-2601, 2602, 2701, 2702	No	Not required
II.F.1.2	Iodine Monitor	QR-108	No	Not Required
II.F.1.3	Post Accident CT High Range Area Monitor	VRA-1310,1410 2310 & 2410	Yes	Later
	Upper CT Area Monitor	VRS-1101,1201 2101,2201	Yes	Later
II.F.1.4	CT Pressure	PPP-300 to 303 PPA-310 to 313	Yes No	I29&I30 (NOTE 4) Not Required
II.F.1.5	CT Wtr. Level	NLA-310 NLI-311,320 321	Yes	Late
II.F.1.6	CT Hydrogen	None Assigned	No	Not Applicable

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REVISED TABLE 1 (Continued) (AEP:NRC:0578D)

<u>NUREG-0737</u>	<u>SYS. EQPT. NAME</u>	<u>PLT. ID</u>	<u>EQ. REQ</u>	<u>SYS. COMP. EVAL. WORKSHEET REF. FROM AEP NRC:00578B (NOTE 1)</u>
II.F.2.1	Subcooling Mtr. (Pressure & Temp. Inputs)	NTR-110 to 140 NTR-210 to 240 NPS-121,122	Yes	128 (NTR's) 122 & 123 (NPS Unit 1) 123 & 124 (NPS Unit 2) (NOTE 4)
II.F.2.3	Level Inst.	NLI-110 to 130 111 to 131	Yes	Later
II.G.1	Power Supplies to PZR Relief Valves Block Valves, and	NRV-151 to 153 NMO-151 to 153 NLP-151 to 153	Yes	S11-1 (NRV's) V9-1 (NMO's and 118 (Unit 1) NLP's 119 (Unit 2 NLP's) (NOTE 4).
II.K.3.1	Auto PORV Isol.	NMO-151,152,153	Yes	V9-1 (NOTE 4)
II.K.3.5	Auto Trip of RCS Pumps	Not Applicable	To be Established	Later
II.K.3.12	Anticipated Trip on Turbine Trip	P-7	No	Not Required

Note 1 Only the primary device System component Evaluation Worksheet is listed since the cross-reference listing included in AEP:NRC:0578B provides the correlation of associated items such as cable and termination.

Note 2 Containment Isolation Valves for:

- a) Item II.B.3: ECR-416, 417, 496, 497, 535 & 536, NCR-105, 106, 109 & 110
- b) Item II.F.1.1: ECR-31, 32, 33, 35 & 36
- c) Item II.F.1.6: ECR-10 through-29 inclusive

Note 3 Monitoring of Post Accident Conditions inside containment can be initiated only when the containment pressure decays below 3 psig and the supply and return sample lines are unisolated.

Note 4 Page numbers corresponding to our forthcoming submittal No. AEP:NRC:0578B

[] Revised

