

DESIGNATED ORIGINAL

REQUEST FOR ADDITIONAL INFORMATION

Certified By

EQUIPMENT ENVIRONMENTAL QUALIFICATION (EEQ)
REVIEW OF LICENSEES' RESOLUTION OF OUTSTANDING ISSUES
FROM NRC EQUIPMENT ENVIRONMENTAL QUALIFICATION SAFETY
EVALUATION REPORTS (SER) AND TMI ACTION PLAN INSTALLED EQUIPMENT

Indiana & Michigan Electric Company.

D. C. Cook Unit 2

NRC Docket No. 50-316

December 18, 1981

NRC TAC No. 42461

Rev. 1, January 28, 1982
Rev. 2, April 7, 1982



Franklin Research Center

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BACKGROUND

Franklin Research Center (FRC) of Philadelphia, Pa. is providing assistance to the U.S. Nuclear Regulatory Commission (NRC) for the equipment environmental qualification (EEQ) review of operating reactors. FRC will perform an EEQ review of the Licensee's 90-day response to outstanding issues from the NRC Equipment Environmental Qualification Safety Evaluation Report (SER) and the installed TMI Action Plan equipment. The review will be limited to safety-related equipment potentially exposed to a harsh environment. The results will be presented in the form of a technical evaluation report for each plant.

This request for additional information (RAI) is the result of an evaluation of the information provided by letters dated September 23, 1981 [1], May 28, 1981 [2], February 3, 1981 [3], and October 31, 1980 [4]*. FRC previously requested TMI Action Plan information by a telephone memorandum dated August 11, 1981 [5].

In response, American Electric Power (AEP) transmitted the following information on August 17, 1981 [6].

1. Several figures and tables which depict pressure, temperature, and radiation of the containment as a function of time for both LOCA and MSIB events.
2. Copies of the general notes referenced in the February 3, 1981 submittal.

By letter dated February 26, 1982 [9], the Licensee transmitted the requested documents except A.l.p, A.l.q, A.l.r, and A.l.u, which have not yet been established as qualification documents and therefore not incorporated into the central file, and item A.l.s, which will be supplanted by a new reference. The Licensee also stated that a new submittal including a revised master list would be submitted by March 31, 1982. (2)**

*Numbers in brackets refer to citations found in the list of references.

**Throughout the text, superscript numbers in parentheses indicate the revision in which the underlined material preceding the superscript was added.

A. FRC REVIEW OF THE LICENSEE'S 90-DAY RESPONSE TO THE NRC EEQ SER

INFORMATION REQUESTED

DATE RECEIVED BY FRC***

1. In reference to the Licensee's 90-day response [1] to the NRC SER [7], a legible single copy of each of the following qualification documents is requested in order that the FRC evaluation may proceed:

a. Conax Test Report IPS-234	<u>3/4/82 [9] (2)</u>
b. Conax Corp. Test Report IPS-137	<u>3/4/82 [9] (2)</u>
c. Conax Corp. Test Report IPS-348	<u>3/4/82 [9] (2)</u>
d. Cerro Wire and Cable Test Report of May 1976	<u>3/4/82 [9] (2)</u>
e. Westinghouse - Canada Test Report CWAPD-332	<u>3/4/82 [9] (2)</u>
f. Limitorque Test Report 600461	<u>3/4/82 [9] (2)</u>
g. Westinghouse Corp. communication NS-PLC-5023 dated 4/26/78 from T. M. Anderson, Westinghouse, to E. G. Case, NRC	<u>3/4/82 [9] (2)</u>
h. Westinghouse Electric Corp. Communications: NS-TMA-1950	<u>3/4/82 [9] (2)</u>
i. Conax Corp. Test Report IPS-326	<u>3/4/82 [9] (2)</u>
j. Conax Corp. Test Report IPS-327	<u>3/4/82 [9] (2)</u>
k. Rockbestos Qualification of Firewall III Class IE Electrical Cable, May 1976 <u>Same as d (2)</u>	
l. Conax Test Report IPS-339	<u>3/4/82 [9] (2)</u>
m. Conax Test Report IPS-349	<u>3/4/82 [9] (2)</u>

***This column will be completed by FRC as the requested information is received.

DATE RECEIVED BY FRC***

- n. Qual. by letter of 6-2-71 from:
W. F. Hergreuter - Customer Service Lab,
Brooklyn, NY to: A. H. Statton - Boston
Edison Co. 3/4/82 [9] (2)
- o. Letter of 4-17-80 from J. M. Allen (Mobil
Oil Corp.) to Allen Feibelman (AEP) 3/4/82 [9] (2)
- p. Floodup Tube Qual. Packet (on SCEW CII-1,
CI2-1, etc. of Reference 1)
Not yet in central file [9] (2)
- q. Instr. Cable Term. Packet (on SCEW TII-1
of Reference 1) Not yet in central file
[9] (2)
- r. Required Time Qual. Analysis (on SCEW
CII-1; CI2-1, etc. of Reference 1) Not
yet in central file [9] (2)
- s. Letter of 4/28/80 from P. K. Eapin to
AEP-NRC-003440 To be supplanted
[9] (2)
- t. Westinghouse Electric Corp.
Correspondence with as noted identity
NS-PLC-5023 (on SCEW I-14 of Reference 1)
Same as q (2)
- u. Electrical Penetration and Analysis (on
SCEW EP01-1 of Reference 1) Not yet in
central file [9] (2)
- v. Cyprus Report No. 3525 3/4/82 [9] (2)
- w. Cyprus Report No. 3658 3/4/82 [9] (2)
- x. A copy of the master list of
safety-related electrical equipment for
D.C. Cook Unit 2 as required by IE
Bulletin 79-01B⁽¹⁾ [2, 4] (2)
- y. Identification of plant ID numbers
applicable to the safety-related
electrical equipment for D. C. Cook Unit
2 if not contained in the master list
requested in x above⁽¹⁾ [2, 4] (2)

B. FRC REVIEW OF INSTALLED TMI ACTION PLAN ITEMS

INFORMATION REQUESTED

DATE RECEIVED BY FRC***

1. References 1, 2, and 3 do not provide adequate detail with respect to identification of TMI Action Plan equipment installed after 1/1/81.

a. Identification of TMI Action Plan equipment installed with implementation dates after 1/1/81 is requested.

[2, 5, 6] (2)

b. The correlation of these equipment items with the specific sections of NUREG-0737 [8] (as applicable) is requested.

[2, 5, 6] (2)

[The correlation is needed to ensure that all items are included in the review, e.g., if a transmitter is identified as a TMI Action Plan item, are the cable and terminal blocks associated with the device also identified?]

c. For all installed TMI Action Plan equipment identified, a System Component Evaluation Worksheet (SCEW) (in accordance with 79-01B format) is requested.

[2, 5, 6] (2)

d. The approximate installation date for the TMI Action Plan equipment items is requested so that the appropriate qualification criteria (NUREG-0588 or DOR Guidelines) can be used in the EEQ evaluation.

[2, 5, 6] (2)

2. The qualification documents, e.g., the actual test reports and associated correspondence cited as evidence of qualification listed on the SCEW sheets, for all identified TMI Action Plan equipment are requested. [The identification of those reports considered to be proprietary is requested so that proper control of documents can be maintained.]

3/4/82 [9] (2)

3. Where the Licensee has a standard Owners' Group position with respect to a NUREG-0737 technical area or has requested extensions of implementation dates, this information is requested in order to incorporate it into the review.

C. INSTRUCTIONS FOR TRANSMITTING INFORMATION REQUESTED

1. The schedule for completion of the FRC assignment requires that the Licensee provide the requested information within 3 weeks of the date of the RAI.
2. The Licensee may transmit the requested information as follows:
 - o complete package directly to the NRC project manager
 - or
 - o copy of cover letter to NRC project manager and complete package to FRC.

FRC mailing address is as follows:

Mr. Cyril J. Crane
Franklin Research Center
The Parkway at Twentieth Street
Philadelphia, PA 19103

Telephone No. 215/448-1353
Telecopy No. 215/448-1296
Telecopy Confirmation No. 215/448-1215

REFERENCES

1. G. P. Maloney
Letter to H. R. Denton, NRC. Subject: Donald C. Cook Nuclear Plant
Unit Nos. 1 and 2; Response to SER on Environmental Qualification of
Safety-Related Electrical Equipment
Indiana & Michigan Electric, 23-Sep-81
AEP:NRC:00578
2. R. S. Hunter
Letter to J. G. Keppler, NRC. Subject: Transmittal of corrected and
additional pages to Attachments 2 and 5 of response to IE Bulletin
79-01B dated May 7, 1980
Indiana & Michigan Electric, 28-May-81
AEP:NRC:0356E
3. G. P. Maloney
Letter to J. G. Keppler, NRC. Subject: Response to IE Bulletin 79-01B
Indiana & Michigan Electric, 03-Feb-81
AEP:NRC:0356D
4. G. P. Maloney
Letter to J. G. Keppler, NRC. Subject: Revisions to Response to IE
Bulletin 79-01B.
Indiana & Michigan Electric, 31-Oct-80
AEP:NRC:00356C
5. Telephone Memorandum
C. J. Crane, J. Murphy (FRC), Conversation with S. Miner (NRC-PM),
J. I. Castresana, J. Delpersico, R. Shelberg, C. Shu (D. C. Cook
representatives), Subject: Request for TMI Information, D. C. Cook
Units 1 and 2, Dated 11-Aug-81.
6. J. I. Castresana
Letter to C. Crane, FRC. Subject: Transmittal of figures and tables
to facilitate TMI Action Plan item review
American Electric Power Service, 14-Aug-81
7. Office of Nuclear Reactor Regulation
Safety Evaluation Report for D. C. Cook Unit 2
Environmental Qualification of Safety-Related
Electrical Equipment
NRC, 29-Apr-81
8. NUREG-0737, "Clarification of TMI Action Plan Requirements"
NRC, November 1980

9. K. S. Hunter

Letter to S. A. Varga, NRC. Subject: Donald C. Cook Nuclear Plant
Unit Nos. 1 and 2: Request for Additional Information on
Environmental Qualification of Safety-Related Equipment
Indiana & Michigan Electric, 26-Feb-82
AEP: NRC0578C⁽²⁾