



March 25, 1996

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Document Control Desk

Subject: Byron Nuclear Power Station, Units 1 and 2
Response to NRC Requests for Additional
Information Regarding the Individual Plant Examination (IPE)
Facility Operating Licenses NPF-37 and NPF-66
NRC Docket Nos. 50-454 and 50-455

Braidwood Nuclear Power Stations Units 1 and 2
Response to NRC Requests for Additional
Information Regarding the Individual Plant Examination (IPE)
Facility Operating Licenses NPF-72 and NPF-77
NRC Docket Nos. 50-456 and 50-457

- References: (a) G.F. Dick Letter to D.L. Farrar, dated February 1, 1996
(b) R.R. Assa Letter to D.L. Farrar, dated January 26, 1996
(c) M.J. Vonk Letter to W. Russell, dated April 28, 1994
(d) M.J. Vonk Letter to W. Russell, dated June 30, 1994
(e) T.W. Simpkin Letter to NRR, dated September 1, 1995

References (a) and (b) provide the NRC Requests for Additional Information (RAI) regarding the Individual Plant Examinations (IPEs) for Byron and Braidwood, submitted to the NRC in References (c) and (d). The questions contained in these RAIs are similar in scope to those received by ComEd in 1994 on the Dresden and Quad Cities IPEs. After reviewing the ComEd responses to those RAIs, the NRC's Safety Evaluation Reports (SERs) for Dresden and Quad Cities, received in November, 1995, concluded that it could not determine that ComEd had met the intent of Generic Letter 88-20.

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In response to similar concerns expressed by the NRC on the Zion Station IPE, ComEd defined a resolution process that would allow ComEd and the NRC to come to closure on the identified issues. In accordance with that process, ComEd developed a "modified IPE" for Zion by making changes to the base IPE. This modified IPE, along with additional analyses on other issues raised in the SER for Zion, were submitted to the NRC in Reference (e).

In order to expedite the IPE resolution process, ComEd will modify the Byron and Braidwood IPEs to address the various concerns raised by the NRC on the Zion, Dresden, and Quad Cities IPEs. Specifically, the following changes will be made to the base IPEs:

- Modify the human error probabilities (HEPs) by employing the alternative Human Reliability Analysis (HRA) methodology described in Reference (e), including pre-initiator human events. An outside expert, Dr. Gareth Parry of NUS, will perform a Peer Review of the revised HEPs.
- Modify the common cause failure (CCF) factors
- Refine the treatment of "Success with Accident Management" (SAM) Sequences
- Modify the LOCA success criteria to be more consistent with other four-loop Westinghouse plants
- Explicitly address pipe rupture in the initiating event frequencies for loss of Service Water and loss of Component Cooling Water

ComEd will also perform detailed internal evaluations to determine if additional IPE modifications are required to address the following issues raised by the NRC:

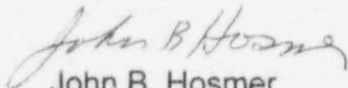
- Fault tree construction related to the inclusion of check valves
- Special initiators including the loss of a single AC bus and the loss of HVAC
- Treatment of SG TR sequences
- Internal flooding concerns related to the impact of spray sources on equipment.

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Finally, the scope of the IPE modifications for Byron and Braidwood will include consideration of the results, when received, of the NRC's review of the Modified Zion IPE submitted in Reference (e).

Upon completion of the internal evaluations and of the NRC review of the Modified Zion IPE, the final scope of IPE modifications for Byron and Braidwood will be determined and transmitted to the NRC. Based on the ComEd internal evaluation schedule and our understanding of the NRC's review schedule for Zion, this final scope of modifications to the Byron and Braidwood IPEs will be determined and transmitted to the NRC no later than June 30, 1996. That transmittal will also include the schedule for submittal of the modified IPEs, including information on the changes made, revised pages to the base IPE Submittal Reports, and answers to the NRC RAI questions documented in References (a) and (b) that are not addressed by the IPE modifications.

Sincerely,



John B. Hosmer

Vice President Engineering

cc: H. Miller, Regional Administrator, Region III
G.F. Dick, Jr., Byron Project Manager, NRR
R.R. Assa, Braidwood Project Manager, NRR
H. Peterson, Senior Resident Inspector, Byron
C.J. Phillips, Senior Resident Inspector, Braidwood
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