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 50-369 William B. McGuire Nuclear Station, Unit 1, Duke Powe 05000369  
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 50-413 Catawba Nuclear Station, Unit 1, Duke Power Co. 05000413  
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SUBJECT: Responds to Generic Ltr 88-20, Suppl 4, "Individual Plant Exam of External Events for Severe Accident Vulnerabilities." Util has completed Level 3 PRAs w/analyses of external events for all util plants. A

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**DUKE POWER**

Dec. 18, 1991

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

Subject: IPEEE 180-DAY RESPONSE  
Oconee Nuclear Station (Docket Nos: 50-269,-270,  
-287)  
McGuire Nuclear Station (Docket Nos: 50-369 and -370)  
Catawba Nuclear Station (Docket Nos: 50-413 and -414)  
NRC Generic Letter 88-20, Supplement 4, IPEEE

Dear Sir:

In response to GL 88-20, Supplement 4, Duke Power Company is providing herein the 180-day response for Oconee, McGuire, and Catawba Nuclear Stations.

As described in our November 1, 1989 response to the IPE program, Duke has completed Level 3 PRAs with analyses of external events for all three of the Duke plants. The Oconee and McGuire IPE submittals have been completed with updated PRAs. The Catawba PRA is now being updated, and the IPE submittal is scheduled for December 1992. The methodology utilized in these Duke PRAs is consistent with the PRA Procedure Guide, NUREG-2300. The external events analyzed in these PRAs include all the events of interest for the IPEEE. Duke Power Company intends to utilize a combination of these PRAs and the EPRI seismic margin methodology to meet the intent and objectives of GL 88-20, Supplement 4.

For Catawba, in addition to the external event PRA, a seismic margin study (SMS) was conducted from 1986 to 1988 as part of the EPRI seismic margin methodology verification effort. The Catawba SMS was actually carried out on Unit 2, and it involved the participation of several Duke engineers, an extensive walkdown of the plant equipment and an analysis of relay chatter. The results of the Catawba SMS have been published in EPRI NP-6359. A 0.3g site specific ground response (for a site with similar seismic activity) was used for the Catawba seismic margin study. Justification for its use is provided in EPRI NP-6359. This spectrum is considered adequate and no further evaluation will be undertaken regarding ground response

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spectrum. To complete the IPEEE for Catawba, a limited seismic walkdown of Unit 1 and a fire walkdown of both units will be conducted. Systems and component lists for the Unit 1 seismic walkdown may be modified by the use of the PRA. The PRA and the FIVE methodology may also be used in outlier resolution. An assessment of the shallow soil condition issue, an evaluation of any additional relay chatter concerns (focused scope approach) and a sensitivity study of the seismic PRA results with the LLNL hazard curve will be conducted. Following submittal of IPE results in December 1992, a report summarizing (1) the walkdown results, (2) shallow soil condition assessment, (3) relay chatter assessment, (4) sensitivity study with the LLNL hazard curve, and (5) internal fire investigation will be submitted.

The McGuire IPE submittal of November 4, 1991 includes the PRA analysis of seismic, fire, tornado, and other external events. To address seismic IPEEE issues a combined PRA/seismic margin methodology approach will be used. The PRA will be used to select systems and components. The systems and components list may be modified by reference to EPRI seismic margin methodology system selection guidance. The EPRI seismic margin approach will be used for seismic input and walkdown. The ground motion input previously used for the Catawba seismic margin study will be used for McGuire. A combination of the seismic margin and PRA methodologies will be used to resolve outliers. A plant walkdown focused on the seismic and fire initiators will be conducted on one unit. A limited walkdown of the other unit will also be conducted to confirm that the conclusions are applicable to both units. An evaluation of the relay chatter issue (focused scope) and a sensitivity study of the seismic PRA results with the LLNL hazard curve will be conducted. A report summarizing the walkdown results, relay chatter assessment, LLNL hazard curve sensitivity study, and internal fire investigation will be submitted.

In the case of Oconee, the IPE submittal already completed includes the analysis of external events. A combined PRA/seismic margin methodology as described above for McGuire will be used to address Oconee seismic IPEEE issues. A NUREG/CR-0098 median ground response spectrum anchored at 0.3g will be used for walkdown purposes. A fire walkdown will be conducted on each unit. Oconee is also an A-46 plant. Therefore, the additional plant walkdown, relay chatter analysis, and the shallow soil condition assessment from the IPEEE seismic standpoint could be most appropriately addressed in conjunction with the A-46 effort. The effort on the Oconee A-46 is awaiting NRC issuance of the Supplemental Safety Evaluation Report (SSER) for the A-46 methodology. A report containing the results of the plant walkdown, shallow soil condition assessment, relay chatter evaluation, sensitivity study of the seismic PRA results with the LLNL hazard curve,

and internal fire investigation will be submitted.

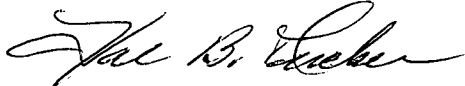
Generic Letter 88-20, Supplement 4, requests licensees to describe their proposed programs for completing the IPEEEs by December 26, 1991. As stated in NRC SECY-91-102, the procedures, for the seismic walkdown portion of this program are "one of the most important ingredients in the seismic IPEEE, and are similar to those that will be use in the implementation of Unresolved Safety Issue (USI) A-46...". Duke Power Company agrees with NRC staff that procedures developed for resolution of A-46 be used as much as possible for the seismic IPEEE, which would include the necessary training in these procedures.

Because of similarities between the A-46 and seismic IPEEE programs, Duke Power Company intends to train seismic IPEEE walkdown personnel at training courses currently being developed by the Seismic Qualification Utility Group ("SQUG"). However, the anticipated Supplemental Safety Evaluation Report ("SSER") on the SQUG's Generic Implementation Procedure (GIP) for resolution of USI A-46 has not been made available in sufficient time to permit finalization and scheduling of the SQUG training courses. Therefore, Duke Power Company is not able to provide a finalized plan and schedule for the seismic portion of IPEEE in this response.

Duke Power Company will conduct the seismic IPEEE program as described above. However, because of the delay in issuance of the SSER, Duke Power Company is not able to submit a firm schedule to complete the seismic portion of the IPEEE until after receipt and review of the SSER and in no case later than 120 days following receipt of the SSER. Following this review, Duke Power Company may modify its program for conducting the seismic IPEEE depending on the content of the SSER and resolution of open issues.

I declare under penalty of perjury that these statements are true and correct to the best of my knowledge.

Very truly yours,



H. B. Tucker

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