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Harry Tauber
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February 26, 1981
EF2 - 51,714

Mr. Robert L. Tedesco
Assistant Director for Licensing
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Dear Mr. Tedesco:

- References:
1. Enrico Fermi Atomic Power Plant, Unit 2
NRC Docket No. 50-341
 2. NRC letter, "Acceptance for the Mark I
Containment Long Term Program", October 31,
1979
 3. NUREG-0661, "Safety Evaluation Report -
Mark I Containment Long Term Program",
published July, 1980
 4. General Electric Company letter, "Mark I
Long Term Program", November 30, 1979
 5. Detroit Edison Company letter, "Require-
ments for Additional Full-Scale Test
Facility Testing and Schedule for Sub-
mittal of the Plant Unique Analysis -
Mark I Containment Long Term Program",
EF2 - 47,174, November 30, 1979
 6. NRC letter, "Summary of Meeting with NRC
on February 6 and February 7, 1979",
February 28, 1979
 7. NRC Meeting Notes, "Summary of Meeting
Held on December 19 and 20, 1979, with the
Mark I Owners Group", January 17, 1980
 8. NRC letter from M. S. Plessent to J. F.
Ahearne, "NRC Acceptance Criteria for the
Mark I Containment Long Term Program",
February 13, 1980

Subject: Mark I Containment Long Term Program - Schedule
for Submittal of the Plant Unique Analysis

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In your letter dated October 31, 1979 (Reference 2) you requested Detroit Edison's schedule for the submittal of the Fermi 2 Containment Long Term Program (LTP) plant unique analysis. Attached to the Reference 2 letter was the Nuclear Regulatory Commission's (NRC) acceptance criteria for the Mark I Containment Long Term Program.

At that time it was the Mark I Containment Owners Group position (Reference 4) that the application of the NRC acceptance criteria was inconsistent with the information presented by the Mark I Program and could result in substantial impacts to the structural evaluations and the plant unique LTP implementation plans. Therefore, Edison's response (Reference 5) to your October 31, 1979 letter stated that the schedule for submittal of the Fermi 2 final plant unique analysis would be provided following final resolution, between the NRC and the Mark I Owners Group, of the specific NRC criteria that were of major concern to the Mark I Owners.

Subsequent to the October 31, 1979 letter (Reference 2), the Mark I Owners met several times with the NRC to discuss potential resolutions for each of the concerns identified by the Mark I Owners. The resolutions that were agreed upon by the Staff were incorporated in Revision 1 of the NRC acceptance criteria document. In a meeting on December 20, 1979 with several Mark I Owner executives (Reference 7) and then subsequently during the 238th meeting of the Advisory Committee on Reactor Safeguards (ACRS) on February 8, 1980 (see Reference 8), the NRC staff indicated that they intended to quickly complete the generic review of the Mark I program and resolve any remaining problems that the utilities may have in complying with NRC acceptance criteria on a plant unique basis.

Although Fermi 2 is a plant under construction, Detroit Edison has actively participated in the Owners Group, and thereby has coordinated the plant unique analysis and implementation efforts with the Mark I Program activities. An interim LTP plant unique analysis was submitted in Amendment 12 (June, 1978) to the Final Safety Analysis Report (FSAR). Reference 17 to Article 3.8 of the FSAR describes the interim program which was conducted to promptly assess the suppression pool hydrodynamic loads. Modifications to the Fermi 2 suppression chamber, vent system and suppression

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chamber internal piping and structures to accommodate the effects of the safety relief valve discharge and postulated loss of coolant accident loads defined in the interim PUA were designed. For the specified loads, all items, as modified, were determined to meet the stress limits established for the LTP with selected consideration for expected load reductions due to trends indicated in more recent Mark I Program test data. As part of this interim LTP plant unique analysis submittal, Edison had also committed to perform a confirmatory review, after the NRC had accepted the Mark I Containment Load Definition Report (LDR).

The interim LTP plant analysis and the extent of required modifications were presented in detail to the NRC Staff in a February 7, 1979 meeting (Reference 6). Edison informed the Staff that the modified structure greatly exceeded the requirements of the Mark I Short Term Program (STP) structural acceptance criteria. That is, the scope of the Fermi 2 containment program was defined to re-establish the original code design margins. It was Edison's intention that the interim PUA would provide the Staff with the necessary input to allow an acceptable evaluation of the Fermi 2 containment program in the Safety Evaluation Report (SER).

Most of the modifications required by the interim PUA have already been installed. The installation of selected modifications had been on hold until the specific concerns of the Owners Group about the NRC acceptance criteria could be resolved. These designs have been re-evaluated in light of the resulting NRC positions, and in some cases the proposed modification has been re-designed. The installation of the remaining modifications required by the interim PUA has been scheduled to be completed before fuel load.

With the publication of NUREG-0661, Edison has initiated the confirmatory review to evaluate the modified Fermi 2 containment structure in terms of the acceptance criteria in Appendix A of NUREG-0661. Edison intends to use the alternate criteria allowed in NUREG-0661, Appendix A, Article 2.13.9 for assessment of the safety relief loads. As such, a series of in-plant tests will be performed to develop a plant unique data base for calibration of the structure analytical models. The results of the confirmatory review and the methods of structural assessment will be documented as part of the Fermi 2 final LTP plant unique analysis and will be available for review at the plant site after the engineering evaluation of the in-plant test data has been completed.

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Detroit Edison would be pleased to meet with the Staff to discuss any questions the Staff may have about the status of the Fermi 2 Torus Modification Program or the completion schedule for the PUA.

Sincerely,