

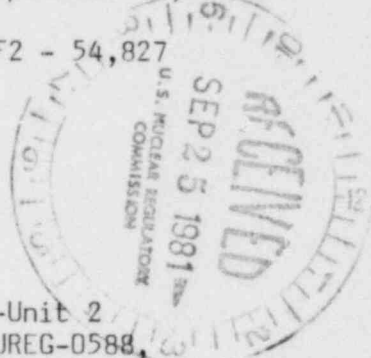
**Detroit  
Edison**

2000 Second Avenue  
Detroit, Michigan 48226  
(313) 237-8000

September 23, 1981

EF2 - 54,827

Mr. L. L. Kintner  
Division of Project Management  
U.S. Nuclear Regulatory Commission  
Washington DC 20555



Reference: Enrico Fermi Atomic Power Plant-Unit 2  
Letter EF2-53887, Response to NUREG-0588,  
dated 6/26/81

Subject: Fermi 2 Equipment Environmental Qualification

Dear Mr. Kintner:

During the July 13-17, 1981 audit performed by the U. S. Nuclear Regulatory Commission (NRC) on the Fermi-2 equipment qualification program, Detroit Edison Co. (DECo) indicated it was developing specific action plans to bring all Fermi-2 Class 1E equipment subjected to harsh environment into compliance with the Category 2 requirements of NUREG-0588. This letter describes the DECo program established to meet this commitment and discusses the basis for the program.

Subsequent to the audit, DECo established an Equipment Qualification Group dedicated to developing the necessary documentation to demonstrate that Fermi-2 equipment meets the applicable NRC requirements. The leader of this team can call upon resources from many different organizations within DECo. These organizations include, but are not limited to: Mechanical/Nuclear, Electrical/I & C, Operations/Maintenance, Research, Quality Assurance and Licensing. This team is composed of experienced DECo systems/design engineers who will be working closely with our consultant, NUTECH, to resolve the equipment qualification issues.

DECo has previously undertaken a significant effort to demonstrate compliance with the current NRC equipment qualification requirement. In June 1981, DECo submitted Reference 1 to the NRC in order to provide information concerning the status of environmental qualification of the Fermi 2 Class 1E equipment subjected to harsh environment. This submittal consisted of a Volume 1 which described the technical basis for the performance of the review as well as the methodology of selecting the equipment and developing the environmental requirements.

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Volume 2 provided the results of the assessment with a summary of the qualification data for each Class 1E equipment item.

In an effort to continue to provide up to date evidence of the qualification of the equipment, Reference 1 will be revised and submitted to the Staff for review on December 1, 1981. As agreed upon between the NRC and DECo, the Staff will perform an audit of the qualification records at the site on December 15, 1981.

The revised Reference 1 will be comprised of three (3) volumes. The format and content of Volumes 1 and 2 will be the same as that which was previously submitted. However, these volumes will be revised to incorporate the comments which were received from the Staff during the previous audit as well as our own detailed review subsequent to the audit. Volume 3 will describe the specific action plans which will bring the equipment into compliance with NUREG 0588, Category 2. Volume 3 will list the specific action plans by vendor and model number and will also include schedules for completing the activities for each item.

We anticipate that the specific action plans will fall into five (5) categories or combinations thereof. These categories are:

- 1) Analysis - Technical justification or vendor clarification may be required to supplement existing qualification reports and data.
- 2) Replace - The item will be replaced with qualified equipment or, in the event that the qualification is in progress, with equipment that will be qualified.
- 3) Test - The item will be tested or retested to current envelopes to provide the necessary qualification data. The testing may be a complete or partial sequence, or an individual test, to supplement existing reports and data, in accordance with NUREG-0588, Category 2 requirements. Test specimens will have documented traceability to the installed item.
- 4) Relocate - The item will be removed from the harsh environment and installed in a mild environment.
- 5) Protect - The item will be protected from the harsh environment such that the environment will become mild.

Letter to:  
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A flow chart describing the methodology being used to select one of the five (5) options is shown in the Attachment. A worksheet based on the flow chart, has been developed and will be completed for each Manufacturer/Model Number with a selected option. The selection of an option is based on the deficiency, and environmental zone vs. quantity distribution as well as the input received from the test labs, equipment vendor, and site construction personnel. DECo and NUTECH are currently reviewing the deficient items and surveying the various organizations to gather the necessary information for the implementation of the option selection plan.

DECo and NUTECH have decided to select nine (9) items and proceed with the option selection process early in this program. The purpose in the early selection of these 9 items is to initiate the requalification process early to support the licensing of the Fermi-2 plant and to identify specific plans as a basis for discussion with the Staff on the approach taken. This will ensure when the balance of the items are completed in Volume 3 of the December submittal, that the recommended approaches are entirely consistent with the Staff's qualification requirements. We would like to arrange a meeting with the Staff to discuss the basis of our option selections for these nine (9) equipment items on Tuesday, September 29, 1981, in the NRC offices in Bethesda. All QSRs, QERs and summary sheets of these 9 items will be sent directly to your Mr. James Kennedy for information, by NUTECH Inc. Implementation of the selected options will occur shortly thereafter. The option selection process will continue for the remaining items in order to meet the December 1, 1981, submittal date.

It is our intent to implement the action plans once they have been determined, with the end result insuring that installed equipment is qualified to NUREG-0588, Category 2 requirements.

Should you have any questions, or need additional information, please let us know at your earliest convenience.

Sincerely yours,



W. F. Colbert  
Technical Director, Fermi 2

WFC/QHD/  
/mb  
Attachment

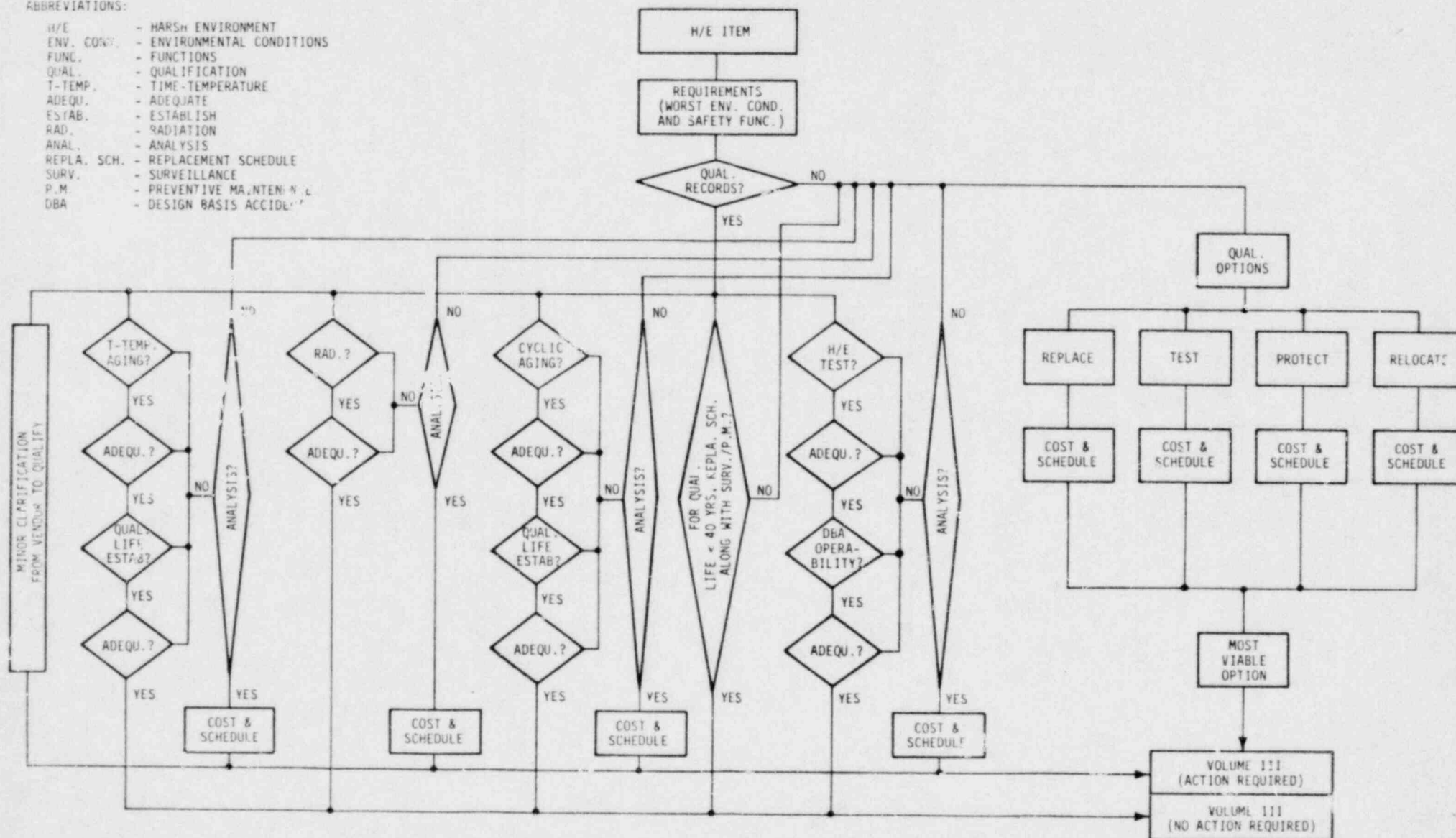
**ENRICO FERMI - 2**  
**EQUIPMENT QUALIFICATION ACTION PLAN**  
**OPTION SELECTION FLOWCHART**

**NOTE:**

FORM EQ-EF2-01 REV.9/21/81

**ABBREVIATIONS:**

H/E - HARSH ENVIRONMENT  
 ENV. COND. - ENVIRONMENTAL CONDITIONS  
 FUNC. - FUNCTIONS  
 QUAL. - QUALIFICATION  
 T-TEMP. - TIME-TEMPERATURE  
 ADEQU. - ADEQUATE  
 ESTAB. - ESTABLISH  
 RAD. - RADIATION  
 ANAL. - ANALYSIS  
 REPLA. SCH. - REPLACEMENT SCHEDULE  
 SURV. - SURVEILLANCE  
 P.M. - PREVENTIVE MAINTENANCE  
 DBA - DESIGN BASIS ACCIDENT



**ENRICO FERMI - 2**  
**EQUIPMENT QUALIFICATION ACTION PLAN**  
**OPTION SELECTION FLOWCHART**

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