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Detroit Edison



October 16, 1998
NRC-98-0156

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

- References:
- 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
 - 2) Detroit Edison Letter to NRC, NRC-97-0006, "The Detroit Edison Company (Fermi 2) Response to Request for Information Pursuant to 10CFR50.54(f) Regarding Adequacy and Accuracy of Design Basis Information", dated February 7, 1997
 - 3) Detroit Edison Letter to NRC, NRC-97-039, "Updated Final Safety Analysis Report (UFSAR) Validation Initiative", dated August 19, 1997
 - 4) NRC Enforcement Guidance Memorandum, EGM 98-007, "Extension of Exercise of Discretion for FSAR Discrepancies Identified While the Licensee has a Defined Program for Identifying Such Discrepancies", dated September 15, 1998

Subject: Status of the Fermi 2 UFSAR Validation and other 50.54(f) Response Initiatives

Detroit Edison, in Reference 2, submitted a summary of ongoing programs and activities that provide assurance that Fermi 2 is configured, operated, and maintained within the plant design bases as defined by 10 CFR 50.2 and that discrepancies are identified and reconciled in a timely manner. In that letter, four voluntary initiatives were identified which were intended to maintain and enhance the foundation for this assurance. Specifically, these initiatives involved:

- 1) completion of an Updated Final Safety Analysis Report (UFSAR) review,

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- 2) strengthening implementation of the current 10CFR§50.59 process,
- 3) strengthening of existing Quality Assurance and Corrective Action programs, and
- 4) continuing an ongoing series of self-initiated Safety System Functional Inspections.

In Reference 3 Detroit Edison provided a description of its plans and schedule for completing the UFSAR review initiative. This description was required by the October 18, 1996 revision to the Enforcement Policy in order to qualify for enforcement discretion if needed. Recently, an Enforcement Guidance Memorandum (Reference 4) was issued to extend the enforcement discretion period. This extension allows time for the NRC Staff to complete its efforts with the Nuclear Energy Institute (NEI) to endorse a mutually agreeable guidance document on FSAR content.

The purpose of this letter is to revise the schedule for implementation of corrective actions resulting from the Fermi 2 UFSAR initiative consistent with Reference 4. This letter also provides an update on the status of the other initiatives listed above and reports the completion of the specific regulatory commitments included in Reference 2.

UFSAR Review

Detroit Edison has completed the focused review and validation of the Fermi 2 UFSAR. The primary objective of this review, to provide increased confidence in the accuracy and completeness of the UFSAR, has been accomplished. The commitment made in Reference 2 therefore is considered complete.

Specifically, the UFSAR Validation Project (UVP) evaluated the accuracy of approximately 12,000 discrete statements in the UFSAR. In addition to accuracy verification, a sample of 125 past plant modifications was selected and assessed to confirm that they were correctly incorporated into the UFSAR. These reviews provided added assurance that the UFSAR has been revised to reflect plant modifications as required by 10 CFR 50.71(e). The UVP also included a comprehensive comparison of the UFSAR with the original Fermi 2 FSAR, the NRC Safety Evaluation Report (NUREG-0798) and its Supplements, Technical Specifications, and selected plant procedures. The UVP and resulting corrective actions are described in more detail in the following paragraphs.

Those portions of the UFSAR that met one or more of the following criteria were selected for validation using design documents, procedures, and other means to confirm their accuracy. These criteria are based on guidance contained in NEI 96-05, Revision 0, "Guidelines For Assessing Programs For Maintaining the Licensing Basis".

- 1) Design Basis information as defined by 10CFR50.2
- 2) Descriptive phrases regarding frequencies of tests, calibrations, etc.
- 3) Structure, System, or Component (SSC) configuration descriptions
- 4) Descriptions of system operation in various modes (e.g., normal, abnormal, accident, and emergency)
- 5) Description or definition of an Operating Limit (OL)
- 6) Operational commitments, practices, procedures, or philosophy

Detroit Edison contracted with General Electric Co. (GE), the Fermi 2 Nuclear Steam Supply System supplier, to perform the majority of the detailed validation. This approach was chosen in order to take advantage of GE's extensive experience and familiarity with design and licensing basis information necessary for a comprehensive validation. Close coordination with Detroit Edison staff was maintained throughout the course of the project.

Application of the criteria as indicated above resulted in the identification of over 12,000 distinct factual statements in the UFSAR. Each statement was then validated by comparison against design documentation and/or procedures. For tracking purposes within the project, Potential Discrepancy Reports (PDR's) were used to document situations where a discrepancy in the UFSAR appeared to exist or where confirming documentation could not be found. PDR's involving discrepancies associated with risk significant systems (RSS) were given a higher review priority. Reviews of RSS issues and all PDR's involving apparent discrepancies were completed by August 15, 1998. Corrective actions for these discrepancies, and for a limited number of UFSAR statements for which validating documentation could not be identified, are currently being tracked to completion by the Fermi 2 corrective action program.

With completion of the review effort, or validation phase, the project focus is now on resolving the issues and discrepancies identified. As part of this process, corrections to the UFSAR and plant procedures are being implemented on a priority basis for issues related to risk significant systems as defined by the Fermi 2 Maintenance Rule Program. Consistent with expectations at the outset of this initiative, none of the issues identified were classified in the corrective action program as having more than a minor safety significance.

UFSAR corrections are currently being processed, and to the maximum extent possible, will be included in the next scheduled UFSAR update. This revision is currently

scheduled for April 15, 1999. Detroit Edison will continue to work on resolving the remaining UFSAR accuracy and completeness issues consistent with the FSAR content guidance agreed upon between NRC and NEI as discussed in Reference 4. The schedule for completion of the entire UFSAR initiative including the correction of all identified discrepancies will also be consistent with Reference 4.

Strengthening the Fermi 2 10CFR§50.59 Process

Since January 1998, Fermi 2 has redesigned the 10CFR§50.59 training program and completely retrained approximately 270 individuals who prepare or review 10CFR§50.59 Preliminary Evaluations (PEs) and Safety Evaluations (SEs). This new training was accomplished in nine one-week courses. The new course is five days in duration and the scope includes review of the Fermi 2 original licensing basis as well as guidance in NEI 96-07 as it relates to the Fermi process.

The current number of certified personnel has also been significantly reduced in size from the number who were certified in 1996. In the future, only people that routinely perform or review PEs or SEs will remain on the list. This should help ensure that an experienced core group of evaluators will be maintained so that PE and SE quality will continue to increase.

The Fermi 2 procedure which governs the preparation of Preliminary Evaluations and Safety Evaluations has also been significantly improved. Two enclosures have been added to the procedure containing guidance on preparing PEs and SEs. This additional guidance incorporates some elements of NEI 96-07 as well as industry and Fermi specific good practices.

The 10CFR§50.59 improvement initiative as committed by Reference 2 is considered complete. Further improvements regarding the implementation of Detroit Edison's 10CFR§50.59 program are under consideration. These improvements will continue to focus on increasing the expertise of personnel who perform Preliminary Evaluations and Safety Evaluations and enhancing the Preliminary Evaluation and Safety Evaluation processes.

Strengthening of Existing Quality Assurance and Corrective Action Programs

In September 1997, a new corrective action process was "rolled out" to over 1,000 personnel at Fermi 2. The components of the new process focused on ownership and accountability which included a revised corrective action procedure (Condition Assessment Resolution Document or CARD), a procedure for conducting root cause investigations, and a revised methodology for performing trend analysis. The intent of the new corrective action process was to lower the threshold for identification of

conditions, improve probable and root cause determinations, and provide better trend analysis and reporting capabilities.

After one year of implementation the initiation rate of CARDS is 8% to 10% higher than the previous process. During the UFSAR validation project the CARD process has been used for identifying and resolving potential discrepancies. The development of an electronic CARD process is underway and should be available in 1999. It is anticipated that this will further improve the identification and resolution of conditions requiring attention.

Approximately 90 site personnel have been trained in the newly developed cause analysis procedure. These "core evaluators" are responsible for performing the root cause analysis for significant conditions adverse to quality. Also, for significant conditions adverse to quality, the new CARD process requires an effectiveness review to be performed to ensure the corrective actions implemented appropriately resolved the condition.

The Quality Assurance process for trending and reporting has been revised. The new process employs the use of statistical process controls to identify trends, and is still evolving to include analysis of data from sources other than CARDS.

The Quality Assurance and Corrective Action Program improvement initiative as committed by Reference 2 is therefore considered complete. Additional program improvements, similar to those described above, will continue to receive consideration in the future as appropriate.

Continuing An Ongoing Series Of Self-Initiated Safety System Functional Inspections.

A Safety System Functional Inspection (SSFI) was performed on the Main Steam-Safety Relief Valves (MS-SRV) system. The Inspection was performed by a Sargent and Lundy seven-man team. The Inspection approach was based on NRC Inspection Module 93801 and Electric Power Research Institute (EPRI) NSAC-121 guideline.

The objective of this SSFI was to assess the operational readiness of the MS-SRV system through an in-depth, multi-disciplinary, engineering and quality review to establish that the system is capable of performing all safety functions. The following functional areas were examined:

- 1) System Design, Design Bases and Licensing Bases
- 2) Design Change Control
- 3) Operations
- 4) Surveillance Testing
- 5) Maintenance

- 6) Training
- 7) Quality Assurance

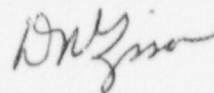
Based on this review the team found that the system was capable of performing its safety related functions. The team identified five findings in the areas of System Design, Design Bases and Licensing Bases, and Design Change Control. These findings were insignificant in terms of Nuclear Safety and system operability, and were in the areas of improvements to certain design calculations and the design change control process.

In Reference 2 Detroit Edison's SSFI commitment was characterized as an ongoing initiative that would provide another means of assessing the effectiveness of processes that control conformance with the design bases. Also, as stated in Reference 2, it was anticipated that the results of additional SSFI's would confirm that any system inspected would be determined to be capable of performing its design bases functions. The results of the SRV SSFI reported above were consistent with these expectations.

In view of the improvements in implementation of the 10CFR§50.59 process, enhancements made to the corrective action program, and considering the results of the SRV SSFI described above, Detroit Edison no longer considers performance of future SSFI-type evaluations as a necessary element of the initiatives undertaken as committed in Reference 2. Detroit Edison recognizes that additional benefits may be derived from future evaluations of this type, and plans to continue to evaluate performing similar self assessments in the future, consistent with resource allocation and prioritization of other Fermi 2 major projects.

If you have any questions or require further information regarding any of the initiatives, discussed in this letter, please contact Mr. Norman K. Peterson, Director-Nuclear Licensing, at (734) 586-4258.

Sincerely,



cc: B. L. Burgess
A. J. Kugler
NRC Resident Office
Regional Administrator, Region III