



Florida Power

CORPORATION
Crystal River Unit 3
Docket No. 50-302

March 31, 1994
3F0394-14

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

Subject: Generic Letter 88-20, Supplement 4
IPEEE Fire Probabilistic Safety Assessment (PSA)

Reference: FPC to NRC letter, 3F1291-01, dated December 19, 1991

Dear Sir:

The purpose of this letter is to inform the NRC that the Crystal River Unit 3 (CR-3) Individual Plant Examination for External Events (IPEEE) will not be submitted on June 30, 1994, as originally planned. Florida Power Corporation (FPC) currently anticipates submittal of the IPEEE by June 30, 1995. The reasons for this postponement are unanticipated resource requirements associated with the preparation of a quality fire safety assessment for CR-3, and are described further below.

The Electric Power Research Institute (EPRI), FPC, and five other nuclear utilities joined together in December 1991 to establish the EPRI Tailored Collaboration (TC) Fire PSA project. FPC's agreement with EPRI required the CR-3 Fire PSA to be among the last of the six to be performed since FPC's PSA staff resources were needed to finish the CR-3 Individual Plant Examination (IPE) which was submitted in March 1993. Following the IPE submittal, FPC work began on the Fire PSA.

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As the EPRI TC project has progressed in the last 12 months, FPC and the EPRI project team have learned some important lessons from other TC project participants who were further along in their Fire PSAs. The most important lesson learned is that the resources needed for the scope of a Fire PSA were vastly underestimated in the original program proposal. This realization is largely based on EPRI's experience with the Texas Utilities Fire PSA for the Comanche Peak Nuclear Plant, the first of the TC participants to start work on their fire PSA. The primary reasons for the resource increase were the unanticipated complexities associated with the creation of the equipment/cable location databases, and the inefficiency of the screening methods used in the fire modeling. Both of these issues were applicable to CR-3. FPC has spent considerable resources compiling information for use in the CR-3 portion of the TC project.

The equipment/cable location database from the original Appendix R work in 1985 has been updated to reflect the present CR-3 configuration; however, the scope of the Appendix R database encompassed only a fraction of the equipment modeled in the CR-3 PSA. Where Appendix R stopped at one protected safe shutdown train, the PSA models all redundancies. FPC is in the process of gathering the additional information necessary to determine the effect of a fire in any fire zone on every piece of equipment modeled in the CR-3 PSA/IPE. In the meantime, fire modeling is being performed for fire zones which are known to contain key safe shutdown equipment and/or cables in order to determine fire ignition frequencies, hot gas layer temperatures, potential targets, suppression capability, etc. This information will be used to determine the probability of fire destroying the individual equipment and cables in the fire zone.

FPC also plans to use the Fire PSA to obtain a risk perspective of the Thermo-Lag issue in support of a performance based approach to the resolution of these degraded fire barriers. Thermo-Lag configuration information for every fire zone/tray (or conduit) combination is presently being gathered in order to use the results of the NUMARC Thermo-Lag testing to determine the duration of protection the Thermo-Lag provides for each piece of equipment it protects at CR-3. This has also consumed considerable resources within the PSA staff at FPC.

These unexpected resource demands for the Fire PSA TC project and Thermo-Lag issue make it necessary for FPC to revise the Fire PSA submittal date to June 30, 1995. We believe the delay is in the best interest of producing a quality assessment of the fire risk at CR-3. The revised completion date is consistent with the scheduled IPEEE completion dates for the rest of the industry.

Sincerely,



P. M. Beard, Jr.
Senior Vice President
Nuclear Operations

PMB/JWT/MWA

xc: Regional Administrator, Region II
 Senior Resident Inspector
 NRR Project Manager

Nuclear Energy Institute