

December 22, 1989
LD-89-145

Project No. 675

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555Subject: Combustion Engineering Standard Safety Analysis Report
- Design Certification, Amendment FReference: Letter LD-89-035, A. E. Scherer (C-E) to
T. E. Murley (NRC), dated March 30, 1989

Dear Sirs:

This letter transmits the next in Combustion Engineering's series of modifications to the Combustion Engineering Standard Safety Analysis Report - Design Certification (CESSAR-DC), in accordance with our draft Licensing Review Basis Document. Our application for design certification was submitted via the reference letter.

For your convenience, we have summarized the contents of Amendment F in Enclosure I. Consistent with our past practice, we are enclosing, herewith, a copy of Amendment F in order to initiate staff review Enclosure II. The number of copies required by 10 CFR 50.30(b), together with the requisite affidavit, will be submitted under separate cover.

If you have any questions, please feel free to call me or Mr. S. E. Ritterbusch of my staff at (203) 285-5206.

Very truly yours,

COMBUSTION ENGINEERING, INC.

A. E. Scherer
Director
Nuclear Licensing

AES:jeb

Enclosures: As Stated

cc: C. L. Miller (NRC) - w/o Enclosure II
T. E. Murley (NRC) - w/o Enclosure II
F. W. Ross (DOE - Germantown) - w/o Enclosure II
R. N. Singh (NRC)Do32
11

Summary of CESSAR-DC, Amendment F

Chapter 4 (Reactor)

1. The hafnium absorber in the 4-element, full-strength CEAs was replaced with Ag-In-Cd absorber. The worth of the CEAs is not affected by this change.
2. The part-strength CEAs are changed from solid Inconel to Inconel cladding filled with Inconel slugs to reduce the total weight of the CEA. The worth of these CEAs is not affected.
3. The fuel assembly lower spacer grid was changed to the Guardian™ debris resistant (entrapment) grid and the fuel rod mechanical design was changed accordingly (extended solid Zircaloy tip, reduced gas plenum volume, and modified plenum spring). The fuel rod behavior was predicted with an updated, NRC-approved version of the FATES fuel performance code which accounts for the "no cladding liftoff" methodology.
4. The description of the fuel surveillance program was revised to provide more specific results.
5. The refueling cycle was increased from 12 to approximately 18 months. The initial core is not affected by this change. Fuel rod power peaking is slightly higher, but values remain within the design limits.
6. Minor technical and editorial corrections have been made.

Appendix A (USIs and GSIs)

This appendix includes (1) a description of the process for resolving USIs and medium- and high-priority GSIs (per 10 CFR Part 52.47) and (2) specific resolutions to sixty-four (64) of those USIs and GSIs which have been determined to be applicable to the System 80+™ Standard Design.

Appendix B (PRA)

This appendix includes a description of the methodology for the System 80+ Probabilistic Risk Assessment. Also included are the Level 1 core damage frequencies for internal events.