



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

September 21, 1988

MEMORANDUM FOR: Sholly Coordinator

FROM: Byron Siegel, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III,  
IV, V and Special Projects

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE - NOTICE  
OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO PROVISIONAL  
OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING  
(TAC 69235)

Commonwealth Edison Company, Docket No. 50-237, Dresden Nuclear Power  
Station, Unit No. 2, Grundy County, Illinois

Date of application for amendment request: August 25, 1988

Description of amendment request: Commonwealth Edison Company (CECo) has proposed changes to the Dresden Unit 2 Technical Specifications to facilitate future reload licensing reviews per 10 CFR Part 50.59. These proposed changes are as follows: 1) Deletion of the license condition requiring a safety evaluation for coastdown operation with off-normal feedwater temperature from Section 3.E of the license; 2) Revision of the Minimum Critical Power Ratio (MCPR) operating limit to a conservative value likely to bound cycle specific results for the near term; 3) Revision of the Single Loop Operation (SLO) MCPR adder to 0.01 (from 0.03) and a revision in the Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) reduction factor for SLO to 0.91 (from 0.70); 4) Incorporation of Transient Linear Heat Generation Rate (TLHGR) limits; 5) Revisions of reduced flow MCPR limits; 6) and Revision of the relief valve

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Technical Specification to require action only after two relief valves are found to be inoperable, provided MAPLHGR reduction factors are implemented.

In addition, proposed administrative Technical Specification changes have been provided which include: changing references to Exxon Nuclear Company (ENC) to advanced Nuclear Fuels Corporation (ANF), except in titles of earlier documents and definitions of nuclear limits, and defining Transient Linear Heat Generation Rate (TLHGR), Steady State LHGR (SLHGR), LHGR, Fuel Design Limiting Ratio for Centerline melt (FDLRC), and Fuel Design Limiting Ratio for Exxon Fuel (FDLRX).

The amendment application of August 25, 1988 is supported by the following analyses which were submitted: ANF Document, XN-NF-84-49, "Analysis of Dresden Units 2 and 3 Operation with One Relief Valve Out-of-Service", dated September 1984; ANF-87-111, "LOCA-ECCS Analysis for Dresden Units During Single Loop Operation with ANF Fuel", dated September 1987; ANF-88-79(P), "Dresden Report - Mechanical, Thermal, and Neutronic Design for ANF 9x9 Fuel Assemblies", dated May 1988; ANF-88-69, "Extended Operating Domain/Equipment Out-of-Service Analysis for Dresden Units 2 and 3", dated July 1988; and GE Letter, REP: 88-161, R. E. Parr to R. A. Roehl, "Correction to Dresden 2 Cycle 12 Alternate Water Chemistry LTA's MAPLHGR Curve", July 26, 1988.

These analyses are similar or identical to the analyses that were previously submitted by CECO for the Dresden 3 Cycle 11 reload and approved by the staff on June 20, 1988.

Basis for proposed no significant hazards consideration determination: The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not; (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The licensee addressed the above three standards in the amendment application as follows:

- a) Involve a significant increase in the probability or consequences of an accident previously evaluated because:

Relative to Item 1:

ANF has performed analyses with NRC approved methodologies to ensure that transients occurring under coastdown conditions with off-normal feedwater temperature are bounded by transients at rated conditions.

Relative to Item 2:

The incorporation of the proposed MCPR operating limits noted above is provided to establish limits on reactor operation which ensure that the core is operated within the assumptions and initial conditions of the transient analyses. Operation within these limits will ensure that the consequences of a transient or accident remain within the results of the analyses. The probability of an accident

is not affected by this change because no physical systems or equipment which could initiate an accident are affected and the MCPR safety limit continues to be protected.

Relative to Item 3:

The incorporation of the proposed MCPR and MAPLHGR limits during single loop operation establishes limits on reactor operation to ensure thermal-mechanical integrity of the fuel and cladding. Neither the consequences nor the probability of an accident is affected by this change because the design basis transients and accidents were considered when establishing these operating limits.

Relative to Item 4:

The incorporation of the proposed TLHGR limits establishes limits on reactor operation to ensure thermal-mechanical integrity of the fuel under transient overpower conditions, consistent with the fuel vendor's design criteria and the surveillance method already performed in the onsite core monitoring computer software. Consequences of previously evaluated events are therefore not affected. The probability of an accident is not affected by this change because no physical systems or equipment which could initiate an accident are affected and the cladding integrity will be maintained during overpower events.

Relative to Item 5:

The incorporation of the proposed reduced flow MCPR limits establishes limits on reactor operation to ensure that thermal limits will not be violated during transients initiated during off-rated

core flows. Therefore, consequences of postulated events are unaffected. The probability of an accident is not affected by this change because no physical systems or equipment which could initiate an accident are affected and the MCPR safety limit will be protected during overpower events initiated at off-rated core flows.

Relative to Item 6:

ANF has performed analyses with NRC approved methodologies to ensure that reactor thermal limits are not violated during limiting transients with one relief valve out-of-service. Event consequences are therefore not affected by this change. The probability of an accident is not affected by this change because no physical systems or equipment which could initiate an accident are significantly affected.

Relative to Items 7 and 8:

These changes are administrative in nature and have no impact on any systems or limits on reactor operation.

- b) Create the possibility of a new or different kind of accident from any accident previously evaluated because:

Relative to Item 1:

ANF has determined that transients occurring at off-rated feedwater heating during coastdown are bounded by those initiated at rated, full power conditions. Furthermore, there is no impact or physical modifications to systems or components whose failure could initiate a new or different kind of accident.

Relative to Items 2, 3, 4, and 5:

The proposed MCPR, MAPLHGR, and LHGR limits represent limits on core power distribution which do not directly affect the operation or function of any system or component. As a result, there is no impact on or addition of any systems or equipment whose failure could initiate a new or different kind of accident.

Relative to Item 6:

Operation is allowed with one relief valve out-of-service (RVOOS) provided appropriate MAPLHGR reductions are implemented. This change in no way impacts the function of the remaining operable valves or other equipment and since the appropriate requirements to test HPCI are included, this change does not create a new or different kind of accident.

Relative to Items 7 and 8:

These changes are administrative in nature and have no impact on or modification to any system or equipment whose failure could initiate an accident.

(c) Involve a significant reduction in the margin of safety because:

Relative to Item 1:

The analysis supporting this change shows that transients during coastdown with off-normal feedwater temperature are bounded by transients at rated conditions, therefore no reduction in the margin of safety occurs.

Relative to Items 2, 3, 4, and 5:

These changes have been analyzed to demonstrate that the consequences of transients or accidents are not increased, using the specified restrictions, beyond those previously evaluated and accepted at Dresden. The analyses show that the MCPR safety limit, fuel thermal-mechanical limits, and reactor pressure limits are not violated during postulated transients.

Relative to Item 6:

Previous analysis supporting this change has shown that the point of minimum MCPR occurs before any relief valves open, indicating the assumption of one relief valve out-of-service will not reduce the margin to safety for anticipated abnormal operating transients. For LOCA, analysis has shown that with the specific MAPLHGR restrictions, all criteria of 10 CFR 50.46 are satisfied for the limiting small break. Large breaks are unaffected.

Relative to Items 7 and 8:

These changes are administrative in nature, either deleting information that is no longer applicable or providing clarification to current specifications.

The staff has reviewed the licensee's no significant hazards analyses given above. Based on this review, the staff proposes to determine that the proposed amendments meet the three 10 CFR 50.92(c) standards and do not involve a significant hazards consideration.

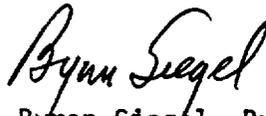
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Local Public Document Room location: Morris Public Library, 604 Liberty Street, Morris, Illinois 60450.

Attorney for licensee: Michael I. Miller, Esquire; Sidley and Austin, One First National Plaza, Chicago, Illinois 60603.

NRC Project Director: Daniel R. Muller



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