



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket File

July 3, 1990

Docket Nos. 50-237
and 50-249

Mr. Thomas J. Kovach
Nuclear Licensing Manager
Commonwealth Edison Company-Suite 300
OPUS West III
1400 OPUS Place
Downers Grove, Illinois 60515

Dear Mr. Kovach:

SUBJECT: RESOLUTION OF IE BULLETIN 80-11, MASONRY WALLS FOR DRESDEN STATION,
UNITS 2 AND 3 (TAC NOS. 63970 AND 63971)

- References:
- (a) IE Bulletin 80-11, dated May 8, 1980.
 - (b) J. Wojnarowski (CECo) letter to H. Denton (NRC), dated October 6, 1986.
 - (c) J. Zwolinski (NRC) letter to D. Farrar (CECo), dated December 4, 1986.
 - (d) B. Siegel (NRC) letter to T. Kovach (CECo), dated July 20, 1989.
 - (e) M. Richter (CECo) letter to T. Murley (NRC), dated September 26, 1989.
 - (f) M. Richter (CECo) letter to T. Murley (NRC), dated November 30, 1989.
 - (g) M. Richter (CECo) letter to T. Murley (NRC), dated June 1990.
 - (h) M. Richter (CECo) letter to T. Murley (NRC), dated March 5, 1990.

In Reference (a), the staff requested licensees to perform a re-evaluation of the design adequacy of safety-related masonry walls under postulated loads. In Reference (b), Commonwealth Edison Company (CECo) submitted documentation supporting the use of the leak-before-break concept for establishing the acceptability of the masonry walls associated with the Reactor Water Cleanup System (RWCS) for Dresden Station, Units 2 and 3. With Reference (c), the staff issued a safety evaluation for Dresden Station, Units 2 and 3. However, the safety evaluation indicated that the concept of leak-before-break was under review as a broad-scope rulemaking issue, and that the adequacy of its application to the RWCS piping would be addressed at a later date. The staff informed CECo, in Reference (d), that the leak-before-break approach was not acceptable for the RWCS piping at Dresden Station since the piping material was subject to an active degradation mechanism (intergranular stress corrosion cracking). Additionally, the staff requested CECo to submit proposed actions which would resolve the staff's concerns with the masonry wall design for Dresden Station. In Reference (e), CECo indicated a study was being performed to evaluate the feasibility of demonstrating that the masonry walls can

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withstand the consequences of a postulated RWCS full area break. In Reference (f), CECO apprised the staff on the results of the initial phase of the study.

In Reference (g) CECO provided the results of an evaluation performed to demonstrate that the safety-related masonry walls in the vicinity of high energy RWCS piping could either withstand the pressurization transient resulting from a RWCS pipe break, or that wall failure would not affect the ability to mitigate the consequences of the pipe break event or the ability to safely shut down the plant. The results of this evaluation determined that only one masonry wall (Wall 38 in Unit 3), which supports the electrical pull box and cabling associated with the Unit 3 RWCS outboard containment isolation valve, could not withstand the calculated peak pipe break pressure. If this wall failed, the operability of this valve could be impacted. In Reference (h) CECO stated that the preferred design solution, to ensure valve operability in the event of the wall failure, is to relocate the electrical pull box and cabling associated with the outboard isolation valve.

In Reference (g), Attachment B, CECO provided a limited risk assessment which utilized the Systematic Evaluation Program (SEP) methodology for Dresden 2 (NUREG-0823, Integrated Plant Safety Assessment, Dresden Unit 2) to justify continued operation until the proposed modification, which is scheduled for the spring 1991 Unit 3 refueling outage, is completed. In this assessment, CECO evaluated the safety significance of a coincident RWCS pipe break and a failure of the RWCS outboard containment isolation valve due to an overpressure failure of Wall 38. This evaluation was based on the probabilistic methodology of the SEP evaluation for Dresden 2 contained in Appendix D to NUREG-0823 which addressed the probability of a pipe break outside containment (SEP Topic III-5.B). The evaluation was adjusted to account for the differences between Dresden 2 and 3 (number of pipe segments outside containment involved). The SEP evaluation assumed a pipe break between the inboard and outboard isolation valves (outside containment) with an assumed single active failure of the inboard isolation valve which results in an unisolated LOCA. The frequency of this combination of events was determined to be 1.8×10^{-7} /reactor year. The staff in NUREG-0823, SEP Topic III-5.B, Pipe Break Outside Containment, stated that the importance to risk of pipe breaks between the containment penetration and the isolation valve outside containment is low. The analysis performed by CECO for the Dresden 3 issue does not change this conclusion.

The staff has evaluated the submittals (References g and h) provided by CECO to resolve the concerns identified in IE Bulletin 80-11, related to masonry walls and determined the relocation of the electrical pull box and cabling to the RWCS outboard isolation valve is acceptable. In addition, based on the risk assessment performed by CECO, the staff has determined that continued operation of Dresden 3 until this modification is completed during the next refueling outage which is scheduled for spring 1991, is also acceptable.

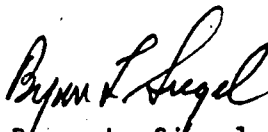
Mr. Thomas J. Kovach

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Please inform the staff when this modification is implemented or if any significant schedule slippage in implementation should occur.

Sincerely,



Byron L. Stegel, Project Manager
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

cc: See next page

Mr. Thomas J. Kovach
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Mr. Thomas J. Kovach

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July 3, 1990

Please inform the staff when this modification is implemented or if any significant schedule slippage in implementation should occur.

Sincerely,

Original signed by

Byron L. Siegel, Project Manager
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

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