



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

June 7, 1989

Docket Nos. 50-254 and 50-265

Mr. Thomas J. Kovach  
Nuclear Licensing Manager  
Commonwealth Edison Company  
Post Office Box 767  
Chicago, IL 60690

Dear Mr. Kovach:

SUBJECT: REVIEW OF THE QUAD CITIES UPDATED FINAL SAFETY ANALYSIS REPORT,  
REVISIONS 5 & 6 (TAC NOS. 67017, 67018, 69004, AND 69005)

REFERENCES: (a) November 20, 1987 letter from I.M. Johnson  
(CECo) to H.R. Denton (NRC) - UFSAR Rev. 5  
(b) July 27, 1988 letter from I.M. Johnson  
(CECo) to U.S.NRC - UFSAR Rev. 6

In accordance with the requirements of 10 CFR 50.71(e), Commonwealth Edison Company (CECo) submitted references (a) and (b), Revisions 5 and 6 of the Quad Cities Updated Final Safety Analysis Report (UFSAR), to us. We reviewed a sampling of the UFSAR sections affected by these revisions for accuracy, consistency, and appropriateness. Enclosed is a list detailing our specific findings.

From the results of our review, we have concluded the following:

- (1) CECo failed to comply with the annual filing requirement of 10 CFR 50.71(e)(4) - Rev. 5 was issued 5 months late.
- (2) Since no summarized outline or description detailing the scope and context of UFSAR changes was provided, it could not be determined that the UFSAR revisions represented all facility changes completed no later than a maximum of 6 months prior to filing.
- (3) Changes made under the provisions of 10 CFR 50.59, but not previously submitted to the NRC, were not identified as required by 10 CFR 50.71(e)(2)(ii). If no such changes were made, this was indeterminate from the submitted UFSAR revisions.
- (4) Some applicable facility changes reported to the NRC in accordance with 10 CFR 50.59 were not incorporated in the UFSAR as required by 10 CFR 50.71(e).
- (5) Some changes incorporated in the UFSAR were not evaluated and/or reported in compliance with 10 CFR 50.59.
- (6) Certain UFSAR changes require further clarification to achieve adequate consistency.


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- (7) Lists of all current pages, after replacement, were not provided to NRC for UFSAR Figures and Appendices as required by 10 CFR 50.71(e)(1).
- (8) Some analyses performed by or on behalf of CECO, at the NRC's request, for new safety issues were not included as part of revisions to the UFSAR, as required by 10 CFR 50.71(e).

In general, except for the above, CECO has followed the requirements of 10 CFR 50.71(e). However, the significance of our findings and determinations indicates prompt and comprehensive corrective actions are warranted by CECO to assure future UFSARs for the Quad Cities Station are submitted in compliance with regulatory requirements. Upon receipt of this letter, CECO is requested to provide us within the next ninety (90) days a response that addresses our conclusions (listed above) and specific findings (enclosed). This response should also detail the scope and schedule of proposed corrective actions. Any and all UFSAR discrepancies or deficiencies identified in the enclosure should be reconciled in the next UFSAR revision. Furthermore, we recommend that CECO review the applicability of our findings and conclusions as "lessons learned" to ensure other station's UFSARs comply with regulatory requirements.

Potential enforcement actions regarding failure to comply with portions of 10 CFR 50.71(e) are being discussed with Region III. You will be notified in the near future concerning our consensus decision. Should you need any detailed clarification or additional information related to this review of references (a) and (b), do not hesitate to ask.

  
Thierry M. Ross, Project Manager  
Project Directorate III-2  
Division of Reactor Projects III,  
IV, V, and Special Projects

Enclosure:  
As stated

cc w/enclosure:  
See next page

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Commonwealth Edison Company

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FINDINGS FROM REVIEW OF REVISIONS 5 AND 6 TO  
QUAD CITIES UPDATED FINAL SAFETY ANALYSIS REPORT

We have completed our review of CECO's update to the Quad Cities Final Safety Analysis Report (FSAR), Revisions 5 and 6, dated November 20, 1987 and July 27, 1988 (respectively). A sampling of FSAR sections affected by these updates were reviewed and several deficiencies and/or discrepancies were identified. Examples of our findings from Revision 5 are described below.

- (1) Figure 3.2.11 was replaced with a new power-flow map. The discussion of the operating characteristics remained unchanged. The new figure used a 20% pump speed line, whereas, the discussion references a 30% pump speed line. This discrepancy could lead to confusion and misunderstanding, and should be clarified in a subsequent FSAR revision.
- (2) Section 7.9 describes the Rod Worth Minimizer (RWM). It appears that the RWM was replaced with a new system. The new RWM uses terms like sequence step, sequence array, and latched step. Although, the new terms are defined, some previous descriptions remained unchanged and reference terms from the old RWM, such as, rod group. The definition for group was deleted in the revision and it is unclear as to whether this term can be used in describing the new RWM. The description appears to be inconsistent with the new RWM and should be clarified in a subsequent FSAR revision.
- (3) Comparison of FSAR Table 7.7.3 and Technical Specification (TS) Table 3.7-1 (primary containment isolation groupings) identified discrepancies in the group descriptions. This was not due to an FSAR update. It appears that the TS should be revised to reflect the current description.  
  
FSAR Table 7.7.2 was revised to change terms (e.g., steamline high rad changed to Hi-Hi) and setpoints (e.g., DW hi rad changed from 2000 R/hr to 100R/hr). No basis (i.e. 50.59 safety evaluation) could be found for these changes.
- (4) Section 2.8.e was changed to reflect a modification to the Sodium Hypochlorite storage tank. This tank is used for water chlorination of the circulating water and service water systems. The modification changed the underground 30,000 gallon tank to an above ground 6,000 gallon tank. Documents reviewed for information regarding this modification included the monthly operating reports, correspondence, annual reports, and performance reports for 1986 and 1987. A 10 CFR 50.59 evaluation or reference to the existence of one was not found.
- (5) A 10 CFR 50.59 evaluation or reference to the existence of one was not found for the modification to the RWM discussed above in item two.

- (6) Modification M-4-2-81-24 (Suppression Pool Temperature Monitoring System) reported in compliance with 10 CFR 50.59 by letter dated December 1, 1988, from R. Robey (CECo) to E. Case (NRC), was not described within the UFSAR.
- (7) UFSAR Table 6.7.1 "Design Low Level Solution Volume" of 3470 gallons does not correspond with the minimum required Technical Specifications tank volume of 3733 gallons.

Examples of findings from our review of Revision 6 are described below.

- (1) Operating modes of the Reactor Water Cleanup System (UFSAR Section 10.3.3.1) were revised without any apparent 10 CFR 50.59 evaluation.
- (2) Analysis of boraflex degradation of storage racks in the Spent Fuel Pool that constituted configuration changes and reductions in the sub-criticality margin were not addressed in the UFSAR.
- (3) An additional off-site 345 KV power line (UFSAR Section 8) was connected to the switchyard ring bus without any apparent 10 CFR 50.59 evaluation.
- (4) Analysis conducted to resolve safety issues associated with Embedment Plates and Piping Configuration Control were not addressed in the UFSAR.

Principal Contributors: T. Ross  
P. Rescheske

Dated: June 7, 1989

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Thomas J. Kovach

- 2 -

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151

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