

November 3, 1998

Mr. Oliver D. Kingsley, President  
Nuclear Generation Group  
Commonwealth Edison Company  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - QUAD CITIES NUCLEAR  
POWER STATION, UNITS 1 AND 2 (TAC NOS. MA3447 AND MA3448)

Dear Mr. Kingsley:

In a letter dated August 31, 1998, Commonwealth Edison Company (ComEd) submitted an application for an amendment to the Technical Specifications, Section 3/4.7.D, Primary Containment Isolation Valves. The staff has reviewed this submittal and has the need for additional information to complete the review. The staff's request for additional information (RAI) is enclosed. These questions were discussed with members of your staff on October 15, 1998, October 19, 1998, October 21, 1998 and November 2, 1998. It was agreed that the responses would be provided within 30 days of the date of this letter.

Sincerely,

ORIG. SIGNED BY  
Robert M. Pulsifer, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-254, 50-265

Enclosure: RAI

cc w/encl: See next page

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November 3, 1998

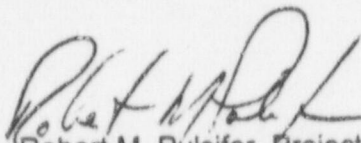
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Robert M. Pulsifer, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket Nos. 50-254, 50-265

Enclosure: RAI

cc w/encl: See next page

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O. Kingsley  
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- 2 -

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Units 1 and 2

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REQUEST FOR ADDITIONAL INFORMATION  
QUAD CITIES' (UNITS 1 & 2) APPLICATION FOR AMENDMENT  
TO TECHNICAL SPECIFICATIONS, SECTION 3/4.7.D,  
PRIMARY CONTAINMENT ISOLATION VALVES

1. Describe how the iodine deposition constant assumed in the August 31, 1998, request was derived from the deposition velocity assumed in the referenced (December 17, 1981) analysis. Provide length and diameter of main steam lines (MSL) at Quad Cities.
2. The iodine deposition velocity used is based on the models in NUREG/CR-0009 for determining deposition in the reactor containment, post-LOCA. However, as described in Section 6.1.9 of NUREG/CR-0009, these models rely on the turbulent mixing of the containment atmosphere. Since the 30 cfh leakage per MSL will most likely result in laminar flow (therefore increasing the importance of iodine transfer through the bulk gas phase), demonstrate that the assumed value is conservative and bounding.
3. The August 31, 1998, request states that a suppression pool time-integrated DF of five was assumed consistent with the Standard Review Plan (SRP) 6.5.5.III.1.
  - a. Consistent with SRP 6.5.5.II.1 verify that all releases from the reactor core pass into the suppression pool, except for small bypass.
  - b. Specify what pool bypass was used in the analysis and compare it to the minimum assumed bypass as discussed in SRP 6.5.5.II.2.
  - c. Provide calculation for determining the overall decontamination factor (DF adjusted for bypass) consistent with SRP 6.5.5.III.2. What fraction of the pool bypass also bypasses secondary containment?
4. The August 31, 1998, request includes a revised analysis of the MSL break accident. Since an increase in allowable MSIV leakage (the subject of the request) is not a parameter in the analysis, justify revising it as a basis for this request.
5. Justify changing the MSLB design basis to a "puff" release model that is not consistent with the guidance in Regulatory Guide 1.5, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Steam Line Break Accident for Boiling Water Reactors." Provide the technical basis for the cloud diameter assumed. Were the cloud diameters and wind speeds assumed for calculating the EAB and LPZ doses the same as that assumed at the control room intake?
6. In order to credit iodine plateout, the main steam line piping, the bypass/drain lines, the interconnected piping and the condenser will need to retain their structural integrity following a Safe Shutdown Earthquake (SSE). The licensee is requested to demonstrate the structural integrity of the entire leakage treatment path, including the above stated leakage path piping, the associated supports, the condenser structural members, and the associated anchorages, using seismic input data and analytical methodologies acceptable to the NRC.

ENCLOSURE

7. To address the seismic II/I issue, the licensee is requested to address the seismic capability of the turbine building.
8. The licensee is requested to address the reliability of the entire leakage treatment path, including all of its boundary valves. This may include descriptions and diagrams of the intended leakage treatment path and boundaries, and assurance that valves required to open the leakage treatment path to the condenser are provided with a highly reliable power source. In addition, confirm that valves which are required to open the leakage treatment path to the condenser will be included as part of the plant inservice testing (IST) program with appropriate testing interval.