



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

November 8, 1988

Docket Nos.: 50-237, 50-249,
50-254, and 50-265

Mr. Henry E. Bliss
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Bliss:

SUBJECT: COMPLIANCE WITH ATWS RULE 10 CFR 50.62 RELATING TO ALTERNATE ROD INJECTION (ARI) AND REACTOR COOLANT RECIRCULATION PUMP TRIP (RPT) SYSTEMS FOR DRESDEN UNITS 2 AND 3 AND QUAD CITIES UNITS 1 AND 2 (TAC NOS. 59089, 59090, 59132, AND 59133)

The ATWS Rule (10 CFR 50.62, "Requirements for Reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plant") requires improvements in the design and operation of commercial nuclear power facilities to reduce the likelihood of failure to shutdown the reactor following anticipated transients, and to mitigate the consequences of an ATWS event. The requirements for a boiling water reactor are to install an alternate rod injection (ARI) system, a standby liquid control system (SLCS), and a reactor coolant recirculation pump trip (RPT) system to be actuated for conditions indicative of an ATWS.

By letters dated September 30, 1987, and May 9, 1988 you provided information concerning implementation of the ATWS Rule for the Dresden and Quad Cities Stations. The staff and Science Applications International Corporation, our consultant, have reviewed this information and the updated FSAR information on the docket related to ARI and RPT systems (SLCS has been previously evaluated by the staff). Based on this review, we have concluded that the ARI and RPT designs for the Dresden and Quad Cities units satisfy the requirements of the ATWS Rule except for diversity. A Safety Evaluation Report (SER), which contains the results of our review, is provided as an enclosure.

The staff has determined that the Rosemount analog transmitters and trip units used for ARI/RPT and the reactor protection trip system, although different models, have insufficient differences to satisfy the diversity requirements of the ATWS Rule (SER, Section 4.4). As a result, we have concluded that CECO should install an ARI/RPT system with instrument components that are diverse from the reactor protection system (RPS), for both the Dresden and Quad Cities Stations, before restart following the next refueling outage for each unit. This diversity requirement was the subject of a letter dated August 8, 1988 from T. E. Murley, Director, Office of Nuclear Reactor Regulation to Mr. L. W. Eury, Senior Vice President, Carolina Power and Light. In that letter the staff's position on the diversity requirement to satisfy the ATWS rule with regard to the Rosemount ARI and RPT analog transmitter trip unit (ATTU) circuit boards was provided. The letter further stated that compatible and fully

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qualified ATTU circuit boards are available from an alternate vendor and that these boards, if installed, would provide sufficient diversity between the ARI/RPT system and RPS.

In addition, the SER states that a preoperational test to verify the ARI functional time should be performed for Dresden (Section 4.1), and procedures should be provided for both Dresden and Quad Cities to assure proper verification that all related components are returned to normal status when the ARI system is reset (Section 4.14).

It is requested that within 30 days of receipt of this letter you provide a response with your proposed resolution of these remaining open items (i.e. lack of diversity, preoperational testing, and additional procedures).

Sincerely,

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

Enclosure:
As stated

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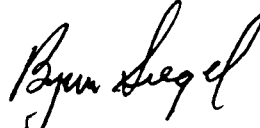
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Sincerely,



Byron Siegel, Project Manager
Project Directorate III-2
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Enclosure:
As stated

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Units 1 and 2

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