SCD/SCB

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Dresden Generating Station
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ComEd

PRIORITY ROUTING

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November 8, 1996

JSPLTR #96-0125

Mr. A. Bill Beach
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Dear Mr. Beach:

The purpose of this letter is to summarize our basis for confidence in the current design and operability of Dresden Station, and to summarize our plans for further verifying the design and ensuring the sufficiency of engineering activities.

Assessment of Current Conditions

ComEd has performed a series of reviews to reverify that current plant conditions are safe and support continued unit operation. These reviews include:

- A review was conducted of the ten systems of most safety significance based upon the Dresden Probabilistic Risk Assessment (PRA). This review included an evaluation of current system surveillance and acceptance criteria with respect to design functions as identified in the Updated Final Safety Analysis Report (UFSAR). The review also included evaluation of work backlogs, Engineering Requests, Licensee Event Reports, and Nuclear Tracking System commitments for each system, as well as applicable Motor Operated Valve and In Service Test programs for each system. In each case, it was determined that surveillance results demonstrate that the equipment operates as expected and that the system would perform its intended safety functions.

- To determine whether systems are performing properly when called upon to operate in and integrated fashion, a review of three significant plant transients between 1989 and 1996 was performed. In each case, the safety systems called upon to operate performed as required.

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- The ComEd corporate Nuclear Fuels Group performed a Loss of Coolant Accident parameter sensitivity evaluation for the most limiting event. This analysis showed that with as much as a 10% reduction in Emergency Core Cooling System flows, and assuming the Maximum Average Planer Linear Heat Generation Rate (MAPLHGR) operating margin is maintained, as expected, at greater than 5%, the peak temperature of reactor fuel cladding was determined to be significantly less than licensed limits.

- The listing of open operability evaluations has been periodically evaluated by the Plant Operations Review Committee to ensure that these evaluations, either individually or in the aggregate, do not adversely impact safety. In addition, the open operabilities were reviewed from a PRA perspective to determine whether these operabilities, either singly or in combination, increased core damage frequency. No adverse impact was identified.

Based upon all of these reviews, we have concluded that continued operation is warranted. However, we are implementing additional actions to provide further confidence in the design basis and engineering activities, as described below. These actions include substantial steps to validate and reconstitute Dresden Station's design basis.

Actions to Ensure Soundness of Current Engineering Activities

- An Engineering Assurance Group (EAG) consisting of senior ComEd engineering personnel and experienced outside experts is being established to provide oversight of key engineering activities. The EAG will review and evaluate:

  a. Design change packages for new modifications and associated calculations

  b. Operability evaluations

  c. 50.59 reviews

d. Engineering evaluations performed at the request of the plant

e. Evalutions for temporary alterations

f. Surveillance trending (In Service Inspection, In Service Testing, Motor Operated Valve Testing, etc.)

g. Special test procedures

h. Performance Improvement Form (PIF) process performance

i. Other items as requested by the Site Engineering Manager

The Engineering Assurance organization will be in place on November 11, 1996. Reviews described above will be governed by newly created or revised processes; these will be in place by November 18, 1996. The organization will continue these functions until normal egnineering activities have improved to the point where these reviews are no longer necessary.

- Nuclear Engineering Procedures will be revised to provide specific direction to engineers on steps to be followed whenever a potential design basis discrepancy is identified. These revisions will address sources of information to be consulted, types of review to be performed, and measures to ensure timely operability review (revisions issued and associated training completed by January 1997).

- The Nuclear Engineering Procedure on calculation control will be revised to provide: clearer guidance on review and update of calculations; clearer expectations on control, retrieval, and format of calculations; and direction on reconstitution/validation of calculations for equipment or portions of systems affected by new modifications (procedure issued and associated training completed by November 29, 1996).

Actions to Ensure Current Status of Key Safety Systems

- An immediate screening will be performed of key parameters on twelve systems most important from a risk perspective. This screening will include a review of key operating parameters against existing system calculations to verify that calculations support those parameters. This screening will be performed by a dedicated team of senior experienced engineering personnel brought in from outside of ComEd, supported by appropriate ComEd system and design engineering personnel. This screening will be completed by February, 1997.

- On an ongoing basis, as design modifications are made, validation or reconstitution of the design basis and/or calculations will be performed on the equipment and portions of systems specifically affected by the modification.

Actions to Ensure Vendor and Architect/Engineer Controls

- ComEd Chief Engineers and Site Quality Assurance will perform audits of the Nuclear Steam Supply System supplier and selected Architect/Engineers to determine quality of design control and calculation quality. The initial audit, of Sargent and Lundy, will commence during November 1996. An action plan will be developed to address findings of these audits and previous findings for other vendors (by the end of 1997).

Actions to Verify Adequacy and Retrievability of Design Basis

- Design basis and calculation validation and/or reconstitution will be performed for the twelve systems most important from a safety perspective per the Dresden Probabilistic Risk Assessment. This effort will ensure that design information and calculations support system functional and testing requirements. Reconstitution/revalidation for six of these systems will be completed by the end of 1997, and the remaining six by the end of 1998. The schedule for validation/reconstitution of these particular systems may be adjusted if substantial modifications or operability evaluations cause revalidation/reconstitution of other systems during this period.

- A review will be performed of Updated Final Safety Analysis (UFSAR) requirements against the assembled Design Basis Documents will be completed by the end of December 1997 as part of our efforts in response to the NRC's October 9, 1996 request for information regarding the adequacy and availability of design basis information.

- Design Basis Documents for the twelve important safety systems will be revised and/or updated in parallel with the validation/reconstitution efforts for those systems. The remaining Design Basis Documents will be revalidated and revised by December 1998.

We believe that these actions will provide continuing confidence that our design basis and engineering controls support safe operation of Dresden Station. Actions to be implemented in 1996 are being initiated immediately. Actions continuing into 1997 will be incorporated into and resourced through our 1997 Business Plan. There may be some changes in schedule dates and sequence of actions depending upon the results encountered as these plans are implemented. We will keep you informed of our progress in completing these actions. Please contact me or Raj Kundalkar, the Dresden Station Site Engineering Manager, should you require any further information.

Sincerely,

J. Stephen Perry
Site Vice President
Dresden Station

JSP/lad

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