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January 14, 1993

Dr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3  
Quad Cities Nuclear Power Station Units 1 and 2  
Additional Information Regarding the Technical Specification  
Upgrade Program (TSUP)  
NRC Docket Nos. 50-237/249 and 50-254/265

- References: (a) P. Piet memo to T. Murley, dated July 29, 1992  
(b) Teleconference between P. Piet (CECo) and B. Siegel (NRC), dated December 23, 1992.

Dr. Murley:

In the time interval since the Reference (a) submittal, several additional questions have been raised by your staff concerning the Technical Specification Upgrade Program submittal. In response, Commonwealth Edison is providing our answers as indicated in the attachment to this letter.

In addition, as discussed during the Reference (b) teleconference, CECo was requested to respond to the inquiry as to whether the Actions proposed by the recent submittal by LaSalle County Station would be pursued by Dresden and Quad Cities within TSUP if found acceptable by NRR. In proposed TSUP Section 3.3.K, "SDV Vent and Drain Valves," Actions 1 and 2, CECo is interested in pursuing similar Action Statements to that proposed by LaSalle Station and may update our initial July 29, 1992 submittal concerning this issue. Such an update would follow normal CECo procedures for Technical Specification submittals (On-Site and Off-Site Review). However, CECo requests that pursuing these changes be left as optional to be implemented at our discretion during the final clean-up portion of the TSUP project.

To the best of my knowledge and belief, the statements contained are true and correct. In some respects, these statements are not based on my personal knowledge but obtained information furnished by other Commonwealth Edison employees and consultants. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

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Please contact this office should further information be required.

Sincerely,



Peter L. Piet  
Nuclear Licensing Administrator

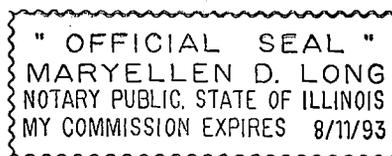
Attachment: Responses to Questions Concerning the Technical Specification Upgrade Program at Dresden and Quad Cities Stations

cc: A. B. Davis, Regional Administrator - RIII  
B. L. Siegel, NRR Project Manager - Dresden  
C. P. Patel, NRR Project Manager - Quad Cities  
W. G. Rogers, Senior Resident Inspector - Dresden  
T. E. Taylor, Senior Resident Inspector - Quad Cities

Signed before me on this 14 day

of January, 1993,

by Maryellen D Long  
Notary Public



**TECHNICAL SPECIFICATION UPGRADE PROGRAM  
DRESDEN & QUAD CITIES**

1. *3/4.0 BASES, explain the changes from the STS.*

Several modifications were proposed for the 3/4.0 Bases as provided in Generic Letter 87-09. The first of these involves a change to Technical Specification (TS) 3.0.D. As proposed in Generic Letter 87-09, TS 3.0.D would provide applicable requirements to allow entry into the applicable operational modes under the provisions of an action statement if the action does not "require a shutdown." However, Enclosure 1 of Generic Letter 87-09 (attached) clarified that the "shutdown" referred to in the Generic Letter for STS 3.0.4 meant placing the plant in "a mode or condition of operation in which the LCO does not apply." Dresden and Quad Cities have proposed to incorporate this clarification directly into the TS, and its Bases, to avoid any confusion. Shutdown, as used in the Generic Letter proposed STS 3.0.4, could be interpreted in many ways, e.g. reduced power, leave power operation, enter Mode 4 (Cold Shutdown), exit Mode 1-3 (since these are normally the operating modes), or exit the applicable modes for that TS. To exit the applicable mode for that TS is consistent to the Generic Letter discussion which states "If these actions are not completed within the allowable outage time limits, action must be taken to shut down the facility by placing it in a mode or condition of operation in which the LCO does not apply." If the Actions allowed by the LCO do not require a Mode change, then entry into that Mode are acceptable. If there is a definite time clock associated with an LCO that requires a Mode change at the expiration of the LCO Allowed-Outage-Time (AOT), then entry into that Mode is not acceptable.

Another change to the 3/4.0 Bases involves incorporation of Generic Letter 89-14 which allows removal of the 3.25 limit on consecutive surveillance intervals extensions. This change was in accordance with the Generic Letter and the Bases were changed only as necessary to reflect those changes.

2. *3.3.C.1, Action 1.a.2 why is shutdown not necessary?*

When a control rod is found to be inoperable, several surveillances are performed to assure adequate reactivity remains to shutdown the reactor. With a single control stuck, the remaining operable control rods are capable of providing the required scram and shutdown reactivity provided the Shutdown Margin (SDM) surveillance is performed successfully. This SDM surveillance is required by Action 3.3.A.1.c.

3. *3.3.A.1, Why is the limit 0.35 and not 0.38?*

The STS Shutdown Margin (SDM) limitations are  $0.28\Delta k/k$  and  $0.38\Delta k/k$  depending if the rod worths are measured or determined analytically. The current Dresden and Quad Cities Technical Specifications have a Shutdown Margin (SDM) limit of  $0.25\Delta k/k$ . Therefore, the proposed limits were developed using the current analyzed SDM assumed in the safety analysis. The limit of  $0.35\Delta k/k$  is found by adding  $0.10\Delta k/k$  to the current analyzed limit for Dresden and Quad Cities in accordance with the Standard

Technical Specifications.

4. *4.1.1.b, SDM demonstration at 500 MWD/T, why did we not adopt this surveillance?*

The current Dresden and Quad Cities Technical Specifications do not require a Shutdown Margin (SDM) surveillance of this type. In addition, the surveillance performed adequately accounts for the uncertainties and biases in the process. Therefore, as long as the margin is met there should be no additional surveillance requirements. The requirement to perform an additional demonstration should the predicted SDM equal the limit is unnecessary and would require a shutdown of the plant. No basis for the added surveillance test exists other than imposing additional conservatism on a previously accepted limit. Finally, the advances in core design routinely allow the cores to be developed with 2% to 3% margins. As a result, Dresden and Quad Cities would never expect to perform this surveillance.

5. *4.3.A.1 proposed measurement versus demonstration, why?*

An actual "measurement" of the Shutdown Margin (SDM) is not conducted to meet this surveillance. Demonstration was chosen because the Shutdown Margin (SDM) is demonstrated, by the withdrawal of control rods, to comply with the analytically determined required value. However, the actual value of SDM is not measured (i.e., Dresden and Quad Cities do not pull a criticality to show SDM. Dresden and Quad Cities pull control rods to an analyzed limit and verify the reactor has not become critical and, hence, adequate SDM is demonstrated.

6. *Why does Dresden use 20% and Quad use 10% for the RWM applicability?*

The current low power setpoint for the RWM at Dresden and Quad Cities is 20% of rated thermal power. On December 27, 1987 the NRC issued a Safety Evaluation approving amendment 17 to NEDE-24011-P in response to a topical report submitted by the BWR Owners Group. The topical report proposed changes to the Rod Sequence Control System (neither Dresden nor Quad Cities have this system) and lower the low power setpoint for the RWM from 20% to 10% of rated thermal power. The NRC stated in the safety evaluation report (SER) that it was acceptable for a licensee to reference the topical report in their request for the change. Currently Quad Cities is licensed under the nuclear design methods contained in NEDE-24011-P and therefore, it is acceptable to apply the conclusions in the NRC safety evaluation report. Dresden utilizes fuel and reload designs developed by Siemens Nuclear and therefore, does not currently have the analysis in place that support the lower of the low power setpoint.

7. *What are the STS cross references for proposed 3.10.D and 3.10.E?*

Proposed 3.10.D is equivalent to STS 3.9.4 and proposed 3.10.E is equivalent to STS 3.9.5. STS Section 3.9.10.1, "Single Control Rod Removal," is equivalent to proposed 3.10.I. STS Section 3.9.10.2, "Multiple Control Rod Removal," is equivalent to proposed 3.10.J. The change should be reflected as an open item and corrected in the final clean-up package.

8. *STS Surveillance Requirement 4.1.3.5.b is not adopted.*

Testing of the leak detectors is not currently performed at either station nor is it required by the current Technical Specifications. Testing of the leak detectors does not provide information that would indicate an inoperable accumulator.

STS Surveillance Requirement 4.1.3.5.b.1 was not adopted in the proposed specifications because it is not contained within the current technical specifications. The current industry direction for this requirement is to remove the requirements from the technical specifications and incorporate the testing in maintenance procedures. Therefore, the STS surveillance is not adopted.

STS Surveillance Requirement 4.1.3.5.b.2 was not adopted based on industry precedent for deleting the requirement. Hope Creek and Perry have deleted the requirement to verify the integrity of the check valves. There are no requirements that the accumulator check valves maintain accumulator pressure for a specified time period should no control rod drive pump be operating (no credit taken in the Safety Analysis). With no control rod drive pump in operation, the reactor is required to be scrammed and therefore, this surveillance was not adopted.

9. *Cross reference for STS Surveillance Requirement 4.1.3.4?*

4.1.3.4 = 4.3.F.

10. *Cross reference for proposed Dresden and Quad Cities Surveillance Requirement 4.3.H.2?*

4.3.H.2 = STS 4.1.3.6.b.

11. *3.1.3.1.d and 3.1.3.1.e, SDV Vent and Drain Valves, why are not all of the valves required to be returned to operable status?*

The proposed action was adopted from the Perry Technical Specifications who have a similar design. The proposed action would be entered if the Vent and Drain valves were determined to be inoperable and closed. Only one set of the Vent and Drain valves are required to be made operable because with the valves in the inoperable and closed position, primary containment is assured. Therefore, the requirement to return all of the valves to operable status is overly restrictive.

12. *STS surveillance 4.1.3.1.3 requires control rods meet surveillance requirement 4.1.3.4. The reference is missing in the proposed specification.*

The reference to proposed surveillance 4.3.F was omitted. The error should be reflected as an open item to be corrected in the final clean-up package.