Commonwealth Edison Company
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ComEd

RS-00-119

October 9, 2000

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Response to Request for Additional Information

References: (1) Letter from R. M. Krich (ComEd) to U. S. NRC Document Control Desk, "Request for Technical Specifications Changes for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, to Convert to Improved Standard Technical Specifications," dated March 3, 2000.

(2) Letter from S. N. Bailey (U. S. NRC) to O. D. Kingsley, "Dresden, LaSalle, Quad Cities - Request for Additional Information," dated September 12, 2000.

Commonwealth Edison (ComEd) Company in a letter dated March 3, 2000, Reference 1, proposed changes to the Technical Specifications (TS) of Facility Operating License Nos. DPR-19, DPR-25, NPF-11, NPF-18, DPR-29, and DPR-30 for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2. The NRC subsequently issued a Request for Additional Information (RAI) letter

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in Reference 2. The RAI letter requested that additional information be provided concerning Section 3.1, "Reactivity Controls Systems," Section 3.2, "Power Distribution Limits," and Section 3.9, "Refueling Operations," of Reference 1 within 60 days after receipt of the letter (i.e., by November 17, 2000). The RAI letter also requested that any necessary revisions to the Reference 1 submittal be made within 60 days after the receipt of the letter. The requested additional information is provided in the Attachment to this letter. The necessary changes to the Reference 1 submittal will be made after resolution of the issues in the RAI letter is achieved.

Should you have any questions concerning this letter, please contact Mr. J. V. Sipek at (630) 663-3741.

Respectfully,

R. M. Krich
Vice President - Regulatory Services

Attachment: Response to Request for Additional Information

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Dresden Nuclear Power Station
NRC Senior Resident Inspector - LaSalle County Station
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety

ATTACHMENT

Response to Request for Additional Information

DRESDEN, QUAD CITIES, LASALLE
IMPROVED TECHNICAL SPECIFICATIONS
REQUEST FOR ADDITIONAL INFORMATION
SECTION 3.1 - REACTIVITY CONTROL SYSTEMS

RAI 3.1.3-1
ITS 3.1.3 Control Rod Operability, for Dresden, Quad Cities, and LaSalle Plants
STS 3.1.3, Required Action E
JFD-4

STS 3.1.3 includes Required Action E which is for the Condition of "One or more groups with four or more inoperable control rods," and is applicable to ANF/SPC (Siemens) fuel. The ITS for the COMED plants do not include this Condition or the associated Required Action, even though they utilize SPC fuel, because "... COMED performs cycle-specific CRDA analyses that incorporate eight rods out of service with at least two cell separation ... Consequently, this ACTION is not applicable ...".
Comment: It is not clear why this Condition and associated Required Action are not applicable. Can the eight rod "limit" be any combination of control rods as long as the separation criteria are met? Should there be a different Condition E that expresses a different limit?

COMED Response: Commonwealth Edison (ComEd) Company does use Advanced Nuclear Fuels/Siemens Power Corporation fuel. However, ComEd performs cycle-specific CRDA analyses that utilize the base assumptions of NEDO-21231 regarding group assignments and number and separation of inoperable control rods. These analyses confirm that the fuel energy deposition is less than 280 calories per gram. These results are consistent with the generic GE analyses described in NEDO-21231. As described in LaSalle ITS 3.3.2.1 Discussion of Change L.3, the GE analyses concluded that as long as there are less than or equal to 8 inoperable
control rods and the inoperable control rods are separated by at least two Operable control rods, then the less than or equal to 3 control rods inoperable per group restriction is not necessary. The 8 inoperable control rod limit can be any combination of control rods as long as the separation criteria limit is met. These two limitations are covered by ITS 3.1.3 ACTIONS D and E. Therefore, with respect to the analyses performed for number and location of inoperable control rods, the ComEd results are consistent with not requiring ISTS 3.1.3 ACTION E.

RAI 3.1.3-2
ITS 3.1.3 Control Rod Operability, for Dresden, Quad Cities, and LaSalle Plants
ITS 3.1.3 Required Action D.1 and associated Bases
Dresden & Quad Cities DOC L.1(2) and JFD-2
LaSalle JFD-3

The ITS submittals change the STS 3.1.3 Required Action D.1 reference to "Banked Position Withdrawal Sequence (BPWS)" to "analyzed rod position sequence." Dresden & Quad Cities DOC L.1(2) discussion includes a statement, "... position is in conformance with the analyzed rod position sequence (e.g., BPWS) constraints, ...". In addition, Dresden & Quad Cities JFD-2

and LaSalle JFD-3 state that this change is made to "reflect plant specific ... licensing basis description."
Comment: There is inadequate justification and Bases discussion regarding the use of the term "analyzed rod position sequence," its relationship to BPWS, and how it is determined.

COMED Response: The control rod position sequence analyzed by ComEd does not always strictly conform to the GE BPWS. Therefore, in lieu of using the term BPWS and its connotations to a strictly defined sequence, the more generic words "analyzed rod position sequence" are proposed. The reference to BPWS in Discussion of Change (DOC) L.1(2) was an example of one type of analyzed rod position sequence used at the ComEd Boiling Water Reactors (BWRs). The Applicable Safety Analyses section of the Bases for Improved Technical Specifications (ITS) 3.1.6, Control Rod Pattern, provides adequate references to the analytical methods and assumptions used in determining the actual control rod position sequence.

RAI 3.1.6-1

Not Used

RAI 3.1.6-2
ITS 3.1.6 Rod Pattern Control, for Dresden, Quad Cities, and LaSalle Plants
ITS 3.1.6 LCO, Conditions, and SR
JFD-1

The ITS submittals utilizes the term "analyzed rod position sequence" rather than "Banked Position Withdrawal Sequence (BPWS)." JFD-3 states that this change is made to reflect "... proper plant specific information ...".
Comment: There is inadequate justification and Bases discussion regarding the use of the term "analyzed rod position sequence," its relationship to BPWS, and how it is determined.

COMED Response: The control rod position sequence analyzed by ComEd does not always strictly conform to the GE BPWS. Therefore, in lieu of using the term BPWS and its connotations to a strictly defined sequence, the more generic words "analyzed rod position sequence" are proposed. The Applicable Safety Analyses section of the Bases for ITS 3.1.6, Control Rod Pattern, provides adequate references to the analytical methods and assumptions used in determining the actual control rod position sequence.

DRESDEN, QUAD CITIES, LASALLE
IMPROVED TECHNICAL SPECIFICATIONS
REQUEST FOR ADDITIONAL INFORMATION
SECTION 3.2 - POWER DISTRIBUTION LIMITS

RAI 3.2.1-1
ITS 3.2.1 APLHGR, for Dresden
ITS 3.2.1 Bases
JFD-2

The last sentence of the B 3.2.1 Background section does not make sense (it is not a sentence); the words "are met" are missing after "10 CFR 50.46."
Comment: Rewrite.

COMED Response: This typographical error will be corrected.

RAI 3.2.1-2
ITS 3.2.1 APLHGR, for Dresden
ITS 3.2.1 Bases
JFD-1 and JFD-2

The Dresden Bases are different from the Quad Cities and LaSalle Bases in that the Dresden Bases do not address the use of GE fuel. Also, the Dresden Bases do not consider Anticipated Operational Occurrences (AOOs) while Quad Cities and LaSalle Bases do.
Comment: Why these differences; are they intentional?

COMED Response: Currently, Dresden Nuclear Power Station does not use GE fuel. The fuel used by Dresden Nuclear Power Station is provided by SPC. The SPC analyses do not consider AOOs in the development of the Average Planar Linear Heat Generation Rate (APLHGR) limit; only a design basis accident loss of coolant accident is considered. Therefore, no changes in the Dresden Bases, with respect to this issue, are needed. However, based on recent input from GE, the analyses, performed by GE, for the next core reloads at Quad Cities Station and LaSalle County Station also will not consider AOOs in the development of the APLHGR limit. Therefore, the Quad Cities Station and LaSalle County Station Bases will be modified to reflect this change in support of the next operating cycle (i.e., the Quad Cities and LaSalle Bases will be modified to be similar to the Dresden Bases).

DRESDEN, QUAD CITIES, LASALLE
IMPROVED TECHNICAL SPECIFICATIONS
REQUEST FOR ADDITIONAL INFORMATION
SECTION 3.9 - REFUELING OPERATIONS

RAI 3.9.1-1
ITS 3.9.1 Refueling Equipment Interlocks, for Dresden, Quad Cities, and LaSalle
STS 3.9.1 Refueling Equipment Interlocks
ITS 3.9.1 LCO and Applicability
JFD-1

The ITS includes TSTF-232, which is not approved.
Comment: It is not expected that TSTF-232 will be approved and therefore should be removed from the ITS.

COMED Response: The current wording of ISTS LCO 3.9.1 and associated Applicability could imply that all the refueling interlocks are required at all times during in-vessel fuel movement. The proposed wording, which is consistent with generic change Technical Specifications Task Force (TSTF)-232, is based on the wording in the current Technical Specification, which only requires the interlocks associated with the refuel position to be Operable, and only when the reactor mode switch is in the refuel position. This change is also consistent with a similar change to the ISTS approved by the NRC during the ITS conversion process for Nine Mile Point Unit 2 (NMP2), WNP-2 and Brunswick Nuclear Plant 1 and 2. Therefore, the change will be maintained in the ITS.

RAI 3.9.1-2
ITS 3.9.1 Refueling Equipment Interlocks, for Dresden, Quad Cities, and LaSalle
ITS 3.9.1 Required Actions A.2.1 & A.2.2
TSTF-225

The ITS has adopted TSTF-225.
Comment: TSTF-225, as adopted in the ITS, was mistakenly approved and therefore should be removed from the ITS. A revised plant specific version of TSTF-225, requiring ALL rods be inserted, has been approved for the Perry plant. A similar change would be acceptable for the Dresden, Quad Cities, and LaSalle plants.

COMED Response: Approved TSTF-225 will be withdrawn from the ITS submittal and a plant-specific change similar to that approved for the Perry plant will be incorporated.

RAI 3.9.9-1
ITS 3.9.9 RHR/SDC-Low Water Level, for Dresden, Quad Cities, and LaSalle
STS 3.9.9 RHR/SDC-Low Water Level
ITS 3.9.9 Condition A
JFD-3

The ITS 3.9.9 adds a note to allow separate condition entry, and rewords Required Action A.1 for verifying an alternate method of decay heat removal for "each" inoperable RHR/SDC subsystem, to verifying an alternate method of decay heat removal for "the" inoperable RHR/SDC subsystem.
Comment: Request COMED submit a TSTF change request to add the note on separate condition entry.

COMED Response: Since the Note allows separate condition entry for each inoperable subsystem, the Required Action must be on an individual subsystem basis. It cannot provide actions for both subsystems. The Bases continues to clarify that an alternate method is required for each inoperable subsystem. Therefore, the deletion of the word "each" is correct and consistent with the use of the separate condition entry note throughout the ITS. We will submit a TSTF change to the Boiling Water Reactor Owners' Group to add the separate condition entry note to the ISTS.