



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-19,  
AMENDMENT NO. 138 TO FACILITY OPERATING LICENSE NO. DPR-25,  
AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE NO. DPR-29,  
AND AMENDMENT NO. 162 TO FACILITY OPERATING LICENSE NO. DPR-30

COMMONWEALTH EDISON COMPANY

AND

MIDAMERICAN ENERGY COMPANY

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-237, 50-249, 50-254 AND 50-265

## 1.0 INTRODUCTION

By letter dated September 10, 1993, as supplemented by letter dated June 16, 1995, Commonwealth Edison Company (ComEd, the licensee) submitted an amendment requesting to upgrade sections of the Dresden Nuclear Power Station, Units 2 and 3, and the Quad Cities Nuclear Power Station, Units 1 and 2, Technical Specifications (TS). The changes have been requested as part of its Technical Specification Upgrade Program (TSUP).

As a result of findings by a Diagnostic Evaluation Team inspection performed by the NRC staff at the Dresden Nuclear Power Station in 1987, ComEd made a decision that both the Dresden Nuclear Power Station and sister site Quad Cities Nuclear Power Station, needed attention focused on the existing custom TS used at the sites.

The licensee made the decision to initiate a TSUP for both Dresden and Quad Cities. The licensee evaluated the current Technical Specifications (CTS) for both stations against the Standard Technical Specifications (STS), contained in NUREG-0123, "Standard Technical Specifications General Electric Plants BWR/4, Revision 4." Both Dresden and Quad Cities are BWR-3 designs and are nearly identical plants. The licensee's evaluation identified numerous potential improvements such as clarifying requirements, changing the TS to make them more understandable and to eliminate the need for interpretation, and deleting requirements that are no longer considered current with industry practice. As a result of the evaluation, ComEd elected to upgrade both the Dresden and Quad Cities TS to the STS contained in NUREG-0123.

The TSUP for Dresden and Quad Cities is not a complete adoption of the STS. The TSUP focuses on (1) integrating additional information such as equipment operability requirements during shutdown conditions, (2) clarifying requirements such as limiting conditions for operations (LCO) and action statements utilizing STS terminology, (3) deleting superseded requirements and modifications to the TS based on the licensee's responses to generic letters (GLs), and (4) relocating specific items to more appropriate TS locations or to licensee controlled documents.

The application dated September 10, 1993, as supplemented June 16, 1995, proposed to upgrade only those sections of the TS to be included in TSUP Section 3/4.8 (Plant Systems) of the Dresden and Quad Cities TS.

The staff reviewed the proposed changes and evaluated all deviations and changes between the proposed TS, the STS, and the CTS. In no case did the licensee propose a change in the TS that would result in the relaxation of the current design requirements as stated in the Updated Final Safety Analysis Reports (UFSAR) for Dresden or Quad Cities.

The licensee submitted identical TS for Quad Cities and Dresden except for plant-specific equipment and design differences. Technical differences between the units are identified as appropriate in the proposed amendment.

## 2.0 EVALUATION

Review Guidelines - The licensee's purpose for the TSUP was to reformat the existing Dresden and Quad Cities TS into the easier to use STS format. Plant-specific data, values, parameters, and equipment-specific operational requirements contained in the CTS for Dresden and Quad Cities were retained by the licensee in the TSUP.

The STS contained in NUREG-0123 were developed by the NRC and industry because of the shortcomings associated with the custom TS which were issued to plants licensed in early 1970s (i.e., Dresden (1971) and Quad Cities (1972)). The STS developed by the NRC and industry provided an adequate level of protection for plant operation by assuring required systems are operable and have been proven to be able to perform their intended functions. The LCOs, the allowed out-of-service times, and the required surveillance frequencies were developed based on industry operating experience, equipment performance, and probabilistic risk assessment analysis during the 1970s. The STS were used as the licensing basis for plants licensed starting in the late 1970s.

For the most part, ComEd's adoption of the STS resulted in more restrictive LCOs and surveillance requirements (SR). In some cases, however, the STS provides relief from the Dresden and Quad Cities CTS requirements. In all these cases, the adoption of the STS requirements for LCOs or SR does not change the current design requirements of either plant as described in the each plant's UFSAR. In addition, the success criteria for the availability and operability of all required systems contained in the CTS are maintained by the adoption of the STS requirements in the proposed TSUP TS.

In addition to adopting the STS guidelines and requirements in the TSUP, ComEd has also evaluated GLs concerning line-item improvements for TS. These GLs were factored into TSUP to make the proposed TS reflect industry lessons learned in the 1980s and early 1990s.

Deviations between the proposed specifications, the STS, and the CTS were reviewed by the staff to determine if they were due to plant-specific features or if they posed a technical deviation from the STS guidelines. Plant-specific data, values, parameters, and equipment specific operational requirements contained in the CTS for Dresden and Quad Cities were retained by the licensee in the upgraded TS.

Administrative Changes - Non-technical, administrative changes were intended to incorporate human factor principles into the form and structure of the STS so that they would be easier for plant operation's personnel to use. These changes are editorial in nature or involve the reorganization or reformatting of requirements without affecting technical content of the CTS or operational requirements. Every section of the proposed TS reflects this type of change.

More Restrictive Requirements - The proposed TSUP TS include certain more restrictive requirements than are contained in the existing TS. Examples of more restrictive requirements include the following: placing an LCO on plant equipment which is not required by the present TS to be operable; adding more restrictive requirements to restore inoperable equipment; and adding more restrictive SR.

Less Restrictive Requirements - The licensee provided a justification for less restrictive requirements on a case-by-case basis as discussed in this safety evaluation (SE). When requirements have been shown to provide little or no safety benefit, their removal from the TS may be appropriate. In most cases, these relaxations had previously been granted to individual plants on a plant-specific basis as the result of (a) generic NRC actions, and (b) new NRC staff positions that have evolved from technological advancements and operating experience.

The Dresden and Quad Cities plant designs were reviewed to determine if the specific design basis was consistent with the STS contained in NUREG-0123. All changes to the CTS and deviations between the licensee's proposed TS and the STS were reviewed by the staff for acceptability to determine if adequate justification was provided (i.e., plant-specific features, retention of existing operating values, etc.).

Deviations the staff finds acceptable include: (1) adding clarifying statements, (2) incorporating changes based on GLs, (3) reformatting multiple steps included under STS action statements into single steps with unique identifiers, (4) retaining plant-specific steps, parameters, or values, (5) moving action statements within a TS, (6) moving action statements from an existing TS to form a new TS section, and (7) omitting the inclusion of STS steps that are not in existing TS.

Relocation of Technical Specifications - The proposed TS may include the relocation of some requirements from the TS to licensee-controlled documents. Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to state TS to be included as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

The Commission has provided guidance for the contents of TS in its "Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors" 58 FR 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies Section 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TS to licensee-controlled documents, consistent with the standard enunciated in *Portland General Electric Co. (Trojan Nuclear Plant)*, ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety."

The Final Policy Statement identified four criteria to be used in determining whether a particular matter is required to be included in the TS, as follows: (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary; (2) a process variable, design feature, or operating restriction that is an initial condition of a design-basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; (3) a structure, system, or component that is part of a primary success path and which functions or actuates to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; (4) a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety. As a result, existing TS requirements which fall within or satisfy any of the criteria in the Final Policy Statement must be retained in the TS, while those TS requirements which do not fall within or satisfy these criteria may be relocated to other, licensee-controlled documents. The Commission recently amended 10 CFR 50.36 to codify and incorporate these four criteria (60 FR 36953).

The following sections provide the staff's evaluations of the specific proposed TS changes.

### 3.0 EVALUATION OF TSUP PROPOSED TS SECTION 3/4.8 PLANT SYSTEMS

The following sections provide the staff's evaluation of the TS changes reflected in proposed TS Section 3.8 (Plant Systems). The current Dresden and Quad Cities TS Section 3/4.8 requirements for Plant Systems have been incorporated into proposed TS Section 3/4.8. Proposed TS 3/4.8 have been developed in accordance with the guidelines of the STS Section 3/4.7, Plant Systems. The proposed TS are evaluated below.

#### 3.1 TS 3/4.8.A: Containment Cooling Service Water (CCSW) System (Dresden) 3/4.8.A: RHR Service Water (RHRSW) System (Quad Cities)

Proposed TS Section 3/4.8.A for Dresden, "Containment Cooling Service Water System (CCSW)," has been formatted in accordance with the guidelines of STS Section 3/4.7.1. The CTS requirements for Dresden's CCSW system have been relocated from CTS Section 3/4.5.B and incorporated into proposed TS 3/4.8.A. Proposed TS 3/4.8.A for Quad Cities, "RHR Service Water System (RHRSW)," has been formatted in accordance with the guidelines of STS Section 3/4.7.1 and applicable guidance issued by NRC GLs. The CTS requirements for Quad Cities' RHRSW system have been relocated from CTS Section 3/4.5.B and incorporated into proposed TS 3/4.8.A. The system design descriptions for each system are described in each station's UFSAR Section 9.2.1.

##### 3.1.1 LCO

Proposed LCO 3.8.A has been formatted in accordance with the guidelines of the STS Section 3.7.1. Proposed TS LCO 3.8.A has retained the requirements from both the Dresden and Quad Cities CTS Section 3.5.B.1. The proposed TS provides enhanced requirements to site operations personnel by clearly defining all the subsystem components. In addition, mode specific requirements are provided to define the times for which the LCO applies. CTS requirements do not provide such explicit requirements. These enhanced requirements help ensure that the appropriate controls are in place to address potential degraded conditions.

The staff finds the proposed LCO has retained all CTS requirements and has been formatted in accordance with the STS guidelines. In addition, the proposed TS enhance the CTS by eliminating operation's need for interpretations of the TS. Therefore, the staff finds the proposed LCO for proposed TS Section 3/4.8.A to be acceptable.

##### 3.1.2 Applicability

Proposed TS 3.8.A, Applicability, has been formatted in accordance with the guidelines of the STS Section 3.7.1.1, Applicability, and requires operability in MODES 1, 2, 3, 4, 5, and \*, with '\*' requiring operability of CCSW when handling fuel in the secondary containment, CORE ALTERATIONS, and operations with a potential for draining the vessel. The CTS requirement for Dresden that specifies whenever fuel is in the vessel and the reactor coolant temperature is > 212 degrees Fahrenheit, has been retained in proposed

TS 3.8.A, Applicability. The CTS mode requirements for Dresden are equivalent to the proposed TS MODES 1, 2 and 3 requirements. The CTS for Quad Cities more specifically includes the requirements prior to reactor startup (i.e., entering into MODES 1, 2 and 3) from a "cold condition" (i.e., MODE 4) when discussing the applicability of the containment cooling mode of the RHR system. The Dresden and Quad Cities CTS TS requirements only specify MODES 1, 2 and 3 for the applicability of the CCSW and RHRSW systems. The proposed TS expand the CTS to include MODES 4, 5 and \*. The proposed applicability provides enhanced requirements.

The applicability requirements specified in Quad Cities CTS Section 3.5.B.1.b and paragraph 2 of Quad Cities CTS Section 3.5.B.3 have not been retained within the proposed TS 3/4.8.A for Quad Cities. The CTS requirements were associated with an emergency TS change from Amendments 119/115 for Quad Cities, Units 1 and 2. The need for the change to the CTS has since expired and are no longer applicable; therefore, the staff finds that the deletion of CTS Section 3.5.B.1.b and paragraph 2 of CTS Section 3.5.B.3 from the applicability statements for the proposed TS to be acceptable.

The staff finds the proposed TS applicability statement has retained all the CTS requirements and has enhanced the CTS by expanding the applicability requirements for the CCSW and RHRSW systems. Therefore, the staff finds the proposed applicability statements for the proposed TS Section 3/4.8.A to be acceptable.

### 3.1.3 Required Actions

The required actions for proposed TS 3.8.A have been formatted in accordance with the STS guidelines. The proposed TS have retained the requirements of the CTS required actions from Section 3.5.B for Dresden and Quad Cities in accordance with the STS guidelines. The proposed TS requirements specify that the plant is to be in HOT SHUTDOWN within 12 hours and COLD SHUTDOWN within the following 24 hours if the LCO can not be met. Although the requirement to bring the plant to COLD SHUTDOWN has been extended, the additional requirement to bring the plant to HOT SHUTDOWN within 12 hours ensures that a shutdown is initiated sooner and the vulnerability to events that rely upon these systems is reduced as the plant achieves a lower operating MODE in a more expeditious time frame.

Proposed TS Section 3.8.A, ACTION 1.a, has retained CTS 3.5.B.2 requirements and STS 3.7.1.1, ACTION a.1. The CTS requirements specify that with one CCSW or RHRSW pump inoperable, return the pump to operable within 30 days. This requirement has been retained in the proposed TS requirements. Therefore, the staff finds the proposed TS 3.8.A, ACTION 1.a, acceptable.

Proposed TS Section 3.8.A, ACTION 1.b, is a new specification based on STS 3.7.1.1, ACTION a.2, guidelines. Proposed TS 3.8.A, ACTION 1.b, specifies with one pump in each subsystem inoperable, return the pumps to OPERABLE within 7 days. The proposed actions insures an adequate level of protection is provided by maintaining enough pumps operable to achieve safe shutdown.

The proposed TS also prevent unnecessary reactor shutdowns, because there are no corresponding CTS TS actions when one pump in each subsystem is inoperable. Present TS requirements would refer operators to CTS Section 3.0.A which would require the plant be brought to cold shutdown conditions within 24 hours. The proposed requirements provide an adequate level of protection for limiting the plant's vulnerability with inoperable CCSW or RHRSW pumps. Therefore, the staff finds the proposed required TS 3.8.A, ACTION 1.b, to be acceptable.

Proposed TS Section 3.8.A, ACTION 1.c, has retained the CTS requirements of Section 3.5.B.3 and has been formatted in accordance with the guidelines of the STS 3.7.1.1, ACTION a.3. The CTS requirements specify that with one subsystem inoperable, return the subsystem to OPERABLE within 7 days. CTS 3.8.A, ACTION 1.c, specifies with one subsystem inoperable, return the subsystem to OPERABLE within 72 hours for Dresden and 7 days for Quad Cities. The proposed requirements conservatively restrict the allowed outage time (AOT) for the CCSW subsystem from 7 days to 72 hours to assure that Dresden's vulnerability in this configuration is limited. The proposed TS AOT for Quad Cities of 7 days is sufficient due to the inherent system design redundancy of the RHRSW. At Dresden, two CCSW pumps are required to achieve post accident cooling while a Quad Cities only 1 pump is required to achieve post accident cooling ; thus, the reduction in the AOT from 7 days to 72 hours for the Dresden proposed TS is warranted. The proposed action requirements are applicable to the Dresden or Quad Cities plant design and provide an adequate level of protection for limiting the plant's vulnerability with inoperable CCSW or RHRSW pumps. Therefore, the staff finds the proposed required TS 3.8.A, ACTION 1.c, to be acceptable.

Proposed TS 3.8.A, ACTION 1.d, is a new TS for Dresden and Quad Cities and has been formatted in accordance with the STS guidelines. The proposed TS action provides a period of 8 hours to restore one subsystem to OPERABLE in the event both subsystems are inoperable. The proposed requirements specify a reasonable period of time to restore the subsystems to an OPERABLE status, and prevents a potential unnecessary reactor mode change which is currently required by CTS. Therefore, the staff finds the proposed TS 3.8.A, ACTION 1.d, to be acceptable.

CTS 3.5.B.4 for Quad Cities regarding containment cooling spray loops has been relocated to Proposed TS 3.7.L, Suppression Chamber and Drywell Spray. Proposed TS Section 3/4.7.L was approved by the staff in Amendment 143/137 for Dresden and 165/161 for Quad Cities.

CTS Section 3.5.B.3 requirements regarding the contingency that both core sprays (CS) and both emergency diesel generators (EDGs) be operable with one CCSW or RHRSW subsystem inoperable have been relocated to proposed TS 3.9.A (Electrical Power Systems), actions. Proposed TS 3.9.A requirements specify that with one EDG inoperable, one of the required two subsystems is required to be OPERABLE including its emergency power supply. For the CCSW or RHRSW subsystems, the emergency power supply is the EDG. Therefore, for the remaining CCSW or RHRSW subsystem, its operability, per the TS definition, is partially based upon the operability of its emergency power source (the

remaining EDG). Therefore, the CTS requirements for operability of the other EDG is redundant to those specified in TS 3/4.9. Because these requirements are redundant, the staff finds the relocation of the CTS requirements acceptable. TSUP TS Section 3/4.9. was approved by the staff in Amendments 138/132 for Dresden and 160/156 for Quad Cities.

CTS Section 3.5.B.3 requirements regarding the operability of both CS subsystems with one CCSW or RHRSW subsystem inoperable has not been retained within proposed TS Section 3/4.8.A. The design bases of the CCSW or RHRSW are to provide the containment cooling function to meet containment capability requirements. Each CS subsystem is designed to operate in conjunction with the low-pressure coolant injection (LPCI) subsystem and either the automatic depressurization system (ADS) or high-pressure coolant injection (HPCI) subsystems to provide adequate core cooling. The requirements for the CS system are dictated by the availability of the LPCI system. Therefore, more appropriate actions are incorporated in the actions specified for LPCI operability within proposed TSUP TS Section 3.5.A. Proposed TS Section 3.5.A, ACTIONS, specify that for the LPCI subsystem inoperable, both CS subsystems are required to be OPERABLE. Otherwise, the plant is required to be brought to HOT SHUTDOWN conditions within 12 hours. Proposed TS 3.5.A, ACTIONS, specify that for the CS subsystem, with one CS subsystem inoperable, the LPCI subsystem (four LPCI pumps and corresponding OPERABLE flow path) is required to be OPERABLE. Otherwise, the plant is required to be brought to HOT SHUTDOWN conditions within 12 hours. Proposed TS 3.5.A, ACTIONS, specify that for the ADS system, with one valve inoperable, the HPCI system, both CS subsystems and the LPCI subsystem are required to be OPERABLE. Otherwise, the plant is required to be brought to HOT SHUTDOWN conditions within 12 hours. Similar controls are in place for HPCI. Because sufficient redundancy of equipment remains available, the staff finds the deletion of CTS 3.5.B.3 requirements to be acceptable.

Based on the above evaluation, the staff finds the required actions for TS 3.8.A have retained the requirements of the CTS and have been formatted in accordance with the STS guidelines. Differences between the CTS requirements and the proposed TS have been evaluated above and found acceptable. Therefore, the staff finds the proposed required actions for TS 3.8.A to be acceptable.

#### 3.1.4 Surveillance Requirements

Proposed TS 4.8.A has retained the SR of CTS Section 4.5.B.1.c for Dresden. Proposed TS 4.8.A are new requirements for Quad Cities. The proposed requirements are equivalent to existing Dresden requirements and add additional requirements for Quad Cities. The proposed SR require that once every 31 days, the proper system valve alignment be performed. The proposed SR are formatted in accordance with the STS guidelines.

CTS 4.5.B.1.a that requires pump/valve checks every 3 months has been relocated to the Dresden and Quad Cities Inservice Testing (IST) programs. The CTS requirements and IST testing requirements are equivalent. Revisions



to the IST program are controlled by the requirements of 10 CFR 50.55a. This regulation provides sufficient controls to ensure the pumps and valves are adequately tested. The proposed requirements are applicable to the Dresden and Quad Cities plant design and provide an adequate level of surveillance requirements for the CCSW or RHRSW system. The staff has determined that the requirements for the CCSW and the RHRSW pump testing frequency, flow parameters and post-maintenance testing requirements are not required to be in the TS under 10 CFR 50.36 or Section 182a of the Atomic Energy Act. Further, they do not fall within any of the four criteria discussed in Section 2.0, above. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.55a, which requires licensee's to implement an IST program, to assure continued protection of public health and safety. Given these considerations, the staff finds relocating CTS 4.5.B.1.a to the IST program is acceptable and provides a reasonable methodology for the control of CCSW/RHRSW pump/valve surveillance.

CTS Section 4.5.B.1.b requirements related to the CCSW/RHRSW pump flow parameters and pump post-maintenance testing has been relocated to the Dresden and Quad Cities IST programs. The specific parameters listed are acceptance criteria that are redundant to the administrative controls established in the IST program. These parameters are more appropriate for control within the IST program as stated above. The details relating to system design, function and OPERABILITY are not necessary for inclusion within the TS. The definition of OPERABILITY for the system suffices. If maintenance on a pump may have impacted its OPERABILITY, the IST program ensures that appropriate testing is performed to demonstrate the OPERABILITY of the pump. Given these considerations, the staff finds relocating CTS 4.5.B.1.b requirements to the IST program is acceptable and provides a reasonable methodology for the control of CCSW/RHRSW pump/valve surveillance. The staff has determined that the requirements for the CCSW and the RHRSW pump testing frequency, flow parameters and post-maintenance testing requirements are not required to be in the TS under 10 CFR 50.36 or Section 182a of the Atomic Energy Act. Further, they do not fall within any of the four criteria discussed in Section 2.0, above. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.55a, which requires licensee's to implement an IST program, to assure continued protection of public health and safety. Therefore, these changes are acceptable.

CTS 4.5.B.1.c for Quad Cities regarding the performance of a logic system functional test each refueling outage has been relocated and incorporated within the proposed TSUP TS Section 3/4.2, Instrumentation, requirements for the (LPCI system). TSUP TS Section 3/4.2 was approved by the staff in Amendments 142/136 for Dresden and 164/160 for Quad Cities.

CTS 4.5.B.2 requirements for Quad Cities (5-year smoke tests) has been relocated to proposed TSUP TS Section 4.7.L, "Suppression Chamber and Drywell Spray." TSUP TS Section 3/4.7 was approved by the staff in Amendments 143/137 for Dresden and 165/161 for Quad Cities.

The current requirements for flood protection of the Dresden CCSW and Quad Cities RHRSW have been relocated from the CTS to the UFSAR. Changes to the UFSAR are controlled per the provisions of 10 CFR 50.59. The CTS requirements specified for the flood protection vaults are design details. The details relating to system design, function and OPERABILITY are not necessary for inclusion within the TS. The definition of OPERABILITY for the system suffices. The staff has determined that the requirements for flood protection of the CCSW system for Dresden and the RHRSW system for Quad Cities are not required to be in the TS under 10 CFR 50.36 or Section 182a of the Atomic Energy Act. Further, they do not fall within any of the four criteria discussed in Section 2.0, above. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.59. Because the requirements provide design details or function, more appropriately controlled outside of the TS, the NRC staff finds the relocation of the flood protection requirements acceptable.

Based on the above, the staff finds the proposed TS SR has been formatted in accordance with the STS guidelines. The proposed TS SR have retained the CTS requirements from Dresden and add new SR for Quad Cities. Specific pump and valve testing, as indicated above, has been relocated to the Station's IST programs and found acceptable. Therefore, the staff finds proposed SR 4.8 to be acceptable.

### 3.1.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.A has been formatted in accordance with the guidelines of the STS and has retained the CTS requirements. Deviations from the CTS requirements have been reviewed and found that they do not reduce the margin of safety for Dresden or Quad Cities. Therefore, the staff finds proposed TS Section 3/4.8.A to be acceptable.

### 3.2 TS 3/4.8.B: Diesel Generator Cooling Water System

There are no CTS requirements for the Diesel Generator Cooling Water (DGCW) system for Dresden or Quad Cities Station. Proposed TS Section 3/4.8.B is a new section that is based on STS Section 3/4.7.1.2 guidelines. The STS requirements are not directly applicable to the Dresden or Quad Cities plant designs. Therefore, the LaSalle TSs were also used as a model for Dresden and Quad Cities.

#### 3.2.1 LCO

The proposed LCO for TS 3/4.8.B has been formatted in accordance with the STS guidelines and the LaSalle County Station TS, since the system design is similar to LaSalle's. The LCO defines a DGCW subsystem as one operable DGCW pump and operable flow path. The proposed requirements are applicable to the Dresden and Quad Cities plant design and provide an adequate level of protection for ensuring the availability of the EDG system is maintained. Because the proposed TS provide additional requirements to the CTS and are

consistent to the current plant designs, the staff finds the proposed LCO for proposed TS 3/4.8.B to be acceptable.

### 3.2.2 Applicability

The proposed Applicability for TS 3/4.8.B is consistent to the format of the current requirements in the LaSalle County Station TS. The proposed applicability statement requires the DGCW system to be operable whenever diesel generators are required to be operable. The current requirements for the DGCW at Dresden and Quad Cities are administratively controlled. The proposed changes add additional restrictions and are consistent with Dresden and Quad Cities plant designs. Therefore, the staff finds the proposed applicability requirements for Section 3/4.8.B of the proposed TS to be acceptable.

### 3.2.3 Required Actions

The proposed required actions have been formatted in accordance with the LaSalle TS since the system design is similar to LaSalle's. For one or more inoperable DGCW subsystems the proposed required action renders the associated diesel generator inoperable and those TS required actions must be taken. Because the proposed TS provide additional requirements consistent to the current plant designs, the staff finds the proposed required action for TS 3/4.8.B acceptable.

### 3.2.4 Surveillance Requirements

The proposed SRs for TS Section 3/4.8.B require verification every 31 days that the valves in the flow path are in the correct position and every 18 months that the pumps start automatically. The proposed SR have been formatted in accordance with the STS guidelines. The proposed requirements are applicable to the Dresden and Quad Cities plant design and provide additional requirements not included in the CTS. Because the proposed TS provide additional requirements consistent to the current plant designs, the staff finds the proposed SR acceptable.

### 3.2.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.B "Diesel Generator Cooling Water System" is an enhancement of CTS and has adopted the guidelines of the STS. Therefore, the staff finds proposed TS Section 3/4.8.B to be acceptable.

### 3.3 TS 3/4.8.C: Ultimate Heat Sink

There are no CTS requirements for the ultimate heat sink for either Dresden or Quad Cities Station. Proposed TS 3/4.8.C is a new section that is based on STS Section 3/4.7.1.3. The system design description for the ultimate heat sink is described in UFSAR, Section 9.2.5, for both stations.

### 3.3.1 LCO

The proposed new LCO has been formatted in accordance with the STS guidelines. The proposed TS require the ultimate heat sink be operable with a minimum water level at 500 feet mean sea level for Dresden, at 561 feet for Quad Cities and an average water temperature less than or equal to 95 degrees Fahrenheit. The proposed requirements are applicable to the Dresden and Quad Cities plant system design and provide an adequate level of protection for ensuring this system is adequately maintained in accordance with the STS guidelines. Because the proposed TS provide additional requirements consistent with the current plant designs, the proposed LCO for TS 3.8.C is acceptable.

### 3.3.2 Applicability

The proposed new requirements are based on the STS 3.7.1.3, Applicability statement. The proposed TS require the ultimate heat sink be operable in all modes of operation for both stations. The proposed requirements are applicable to the Dresden and Quad Cities plant system design and provide an adequate level of protection for ensuring that this system is adequately maintained. Because the proposed TS provide additional requirements consistent to the current plant designs, the staff finds the proposed applicability statement for TS 3.8.C acceptable.

### 3.3.3 Required Actions

The proposed new required actions have been formatted in accordance with the guidelines of STS Section 3.7.1.3, ACTIONS. The proposed required action in operational MODES 1, 2 and 3 requires immediate shutdown if the LCO can not be met. In operational MODES 4, 5 and "\*" the proposed TS require that if the LCO can not be satisfied, the DGCW system be declared inoperable and those TS required actions be taken to declare the associated diesel generator inoperable, in accordance with the STS guidelines. The proposed requirements are applicable to the Dresden and Quad Cities plant system design and provide an adequate level of protection for ensuring that the ultimate heat sink is adequately maintained. Because the proposed changes provide additional restrictions not currently included in the TS, the proposed required actions for TS 3.8.C are acceptable.

### 3.3.4 Surveillance Requirements

Proposed new TS 4.8.C SRs are formatted in accordance with the STS guidelines. The proposed TS require surveillances be performed on the ultimate heat sink once every 24 hours to justify their operability. Because the proposed SRs provide additional requirements not currently included in the CTS, the staff finds the proposed SRs for TS 3/4.8.C acceptable.

### 3.3.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.C "Ultimate Heat Sink" has adopted the guidelines of the STS. The proposed TS provides new requirements for the ultimate sink at both the Dresden and Quad Cities Stations that are enhancements of the CTS. Therefore, the staff finds proposed TS Section 3/4.8.C to be acceptable.

### 3.4 TS 3/4.8.D: Control Room Emergency Filtration System (CREFS)

Proposed Specification 3/4.8.D, "Control Room Emergency Filtration System," is a new TS for Dresden and incorporates CTS requirements from Quad Cities. There are no CTS requirements for the CREFS at Dresden. CREFS is presently administratively controlled at Dresden Station. The proposed TS had been formatted in accordance with STS guidelines.

#### 3.4.1 LCO

Proposed LCO 3.8.D has been formatted in accordance with the guidelines of STS Section 3/4.7.2. Current Quad Cities CTS Section 3.8.H requires the control room emergency filtration system to be operable. There is no current LCO requirement in the Dresden CTS. The staff finds the proposed LCO has been formatted in accordance with the STS guidelines and has retained the current Quad Cities CTS requirements and added new TS requirements for Dresden. Therefore, the proposed LCO for TSUP Section 3.8.D is acceptable.

#### 3.4.2 Applicability

The proposed applicability statement has been formatted in accordance with the STS guidelines. The proposed applicability requirements have retained the CTS requirements from the Quad Cities TS and added applicability requirements for Dresden. The footnote defining "\*" has been added to both Dresden and Quad Cities CTS based on the STS guidelines to maintain uniformity with TS 3/4.8.A. Because proposed applicability statement has retained the CTS requirements of Quad Cities and new requirements are added for Dresden Station, the staff finds the proposed Applicability Statement for proposed TS 3.8.D is acceptable.

#### 3.4.3 Required Actions

The proposed required actions for TS 3/4.8.D have been formatted in accordance with the guidelines of STS Section 3/4.7.2. The proposed TS required actions have retained the required action from the Quad Cities CTS Section 3/4.8.H and provide new TS requirements for Dresden. CTS requirements of Quad Cities have an AOT of 14 days.

In the originally proposed TS required action, the licensee proposed maintaining the 14 day AOT from Quad Cities CTS requirements for the CREFS. The staff reviewed the 14 day AOT for the Dresden Station and found it unacceptable. By letter dated June 16, 1995, ComEd proposed to revise the AOT

for CREFS from 14 days to 7 days and add TS requirements for the Control Room Filtration and Air Conditioning System. The revision will maintain the Control Room environment suitable for plant personnel habitability and for equipment functional reliability under all plant conditions. The above issues will remain as an open item, contingent upon the licensee providing the specific details of the TS and the staff's review and approval in the TSUP clean-up package.

#### 3.4.4 Surveillance Requirements

Proposed TS 4.8.D has been formatted in accordance with the STS guidelines Section 4.7.2. The proposed TS is also based upon the recommendations in GL 93-05, "Line-Item Technical Specification Improvements to Reduce Surveillance Requirements for Testing During Power Operation," and NUREG 1366, "Improvements to Technical Specifications Surveillance Requirements."

Proposed TS 4.8.D.1 adds a new requirement for both the Dresden and Quad Cities TS. Proposed TS 4.8.D.1 requires that once per 12-hours the control room temperature is verified to be  $\leq 95$  degrees Fahrenheit. This value provides for equipment functional reliability, with sufficient margin to ensure reliable human performance. The staff finds the proposed TS SR acceptable.

Proposed TS 4.8.D.2 revises the CTS acceptance criteria for the monthly CREFS initiation of air flow through the HEPA filters and charcoal adsorbers to require 10 hours of operation with the heaters operating. The current Quad Cities TS only requires that the heaters be operable. There are no CTS requirements for Dresden. The proposed TS revises Quad Cities CTS requirements by clarifying the purpose of heater operation during the required monthly surveillance. The purpose of heater operation during the surveillance is to reduce the build-up of moisture on the HEPA filters and charcoal adsorbers. The proposed requirements will continue to ensure heater availability by reducing moisture build-up; therefore, the staff finds the proposed SR acceptable.

Proposed TS 4.8.D.3 requires that once per 18 months or after maintenance or operational events that could affect the reliability of charcoal adsorber and HEPA filter, that surveillance be performed to verify the adsorber and filter operation. Proposed TS 4.8.D.3 retains the Quad Cities CTS 4.8.H.2 requirements that specify leak tight verifications and carbon test canister analysis be performed. The proposed TS also add new additional surveillances which require that if maintenance is performed on the HEPA filter or the charcoal adsorber housing operability testing is performed. The proposed TS is consistent with STS guidelines. Because the proposed requirements are consistent with STS guidelines and provide additional requirements not included within the current Quad Cities TS and add new TS requirements for Dresden, the staff finds the proposed SR acceptable.

Proposed SR 4.8.D.4 requires that after 1440 hours of charcoal adsorber operation that certain laboratory test be performed to verify the CREFS operability. The proposed SR is consistent with the STS guidelines with the exception that the proposed SR utilizes a 1440 hour service usage testing requirement (STS = 720) based on historical test results. The proposed 1440 hour service usage interval maintains the current requirements contained within the current Quad Cities TS Section 3/4.7. The licensee has not provided sufficient justification for the use of the 1440 value in the proposed Dresden TSUP SR. This will remain as an open item for both Dresden and Quad Cities until the licensee provides sufficient information in the TSUP clean-up amendment package to justify the 1440 value proposed in the SR.

Proposed SR 4.8.D.5.a requires that once per 18 months that the CREFS system be shown operable by verifying that the pressure drop across the filters and adsorbers is within a specified range. The proposed TS retains the Quad Cities CTS requirements and adds new requirements for Dresden and is, therefore, acceptable.

Proposed TS 4.8.D.5.b is a new requirement for Dresden and Quad Cities which requires verification that isolation dampers close on initiation. For Quad Cities, the proposed surveillance contains the requirement for verification of isolation on manual initiation and upon simulated automatic isolation signal. The proposed TS for Dresden does not include automatic isolation mode actuation requirements. The Dresden design does not incorporate an automatic isolation function. Because the proposed requirements are consistent with the plant system design and provide additional requirements not incorporated within the CTS for Dresden and Quad Cities, the staff finds the proposed SR acceptable.

Proposed TS 4.8.D.5.c is a new requirement for Dresden and Quad Cities which verifies that positive pressure be maintained in the control room. The proposed surveillance does not include the STS guidelines of automatic pressurization mode requirements. The Dresden and Quad Cities design does not incorporate an automatic pressurization mode initiation function. The system is manually initiated. Because current design requirements are maintained, the staff finds the proposed SR acceptable.

Proposed TS 4.8.D.5.d verifies that the heaters dissipate an adequate amount of heat. The current Quad Cities TS requires that a specific differential temperature be demonstrated. The proposed TS requires a range of kW values. Requiring a range of kW values will prevent misinterpretation of the TS required testing. The STS guidelines for this surveillance have been supplemented to retain current plant specific provisions for voltage variations at the power source. Variation in supply voltage from 480 volts is expected; therefore, heater power consumption will be affected by the supply voltage changes. The proposed changes will ensure that the heaters will continue to provide the rated capacity necessary to ensure appropriate humidity limits are maintained at the charcoal adsorber inlet. Allowing for a voltage correction and rated kW value with an acceptance range will prevent potential TS misinterpretation in the future. Because the proposed

requirements are consistent with the plant system design for the CREFS heater and provide additional requirements not located within the CTS for Dresden and Quad Cities, the staff finds the proposed SR acceptable.

Proposed SR 4.8.D.6 and 4.8.D.7 requires that after complete or partial replacement of the HEPA filter bank or charcoal adsorber bank the filter bank and/or the charcoal adsorber bank has to satisfy a specified in-place penetration and leakage test. The proposed SRs retain the Quad Cities CTS requirements and add additional requirements to the Dresden TS.

The staff found the proposed SRs for the CREFS have incorporated the CTS requirements from Quad Cities and added new SRs for the Dresden Station. The proposed SR have been formatted in accordance with the STS guidelines and modified as indicated above to match the design configuration of CREFS at both Dresden and Quad Cities. Based on the above, the staff finds the proposed SR acceptable with the exception of the above open item.

### 3.4.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.D, "Control Room Emergency Filtration System (CREFS)," has adopted the guidelines of the STS. The deviations from the CTS provide enhancements to the TS and do not reduce the margin of safety for Dresden or Quad Cities. The proposed TS add new requirements for Dresden. Therefore, the staff finds proposed TS Section 3/4.8.D to be acceptable with the exception of the above-mentioned open items.

### 3.5 TS 3/4.8.E: Flood Protection

Proposed Specification 3/4.8.E, "Flood Protection," is a new specification for both Dresden and Quad Cities. TS 3/4.8.E is based on STS 3/4.7.3. Proposed actions and surveillance are added to the specifications in accordance with STS guidelines and current flood protection procedures. The proposed TS section is consistent with the current plant design requirements and maintains the current safety margin for Dresden and Quad Cities.

#### 3.5.1 LCO

Proposed new TS 3.8.E, LCO, has been formatted in accordance with STS Section 3.7.3, LCO. The proposed LCO requires flood protection be provided at all times. The proposed Dresden and Quad Cities TS will ensure the appropriate LCOs are in place for plant flood protection. The proposed requirements are applicable to the Dresden and Quad Cities plant design and provide an adequate level of protection for plant flood protection. Because the proposed requirements are new restrictions imposed upon Dresden and Quad Cities applicable to the plant design that ensure that flood protection provisions are adequately maintained, the staff finds the proposed LCO for proposed TS Section 3/4.8.E acceptable.



### 3.5.2 Applicability

Proposed new TS 3.8.E, Applicability, is based on STS Section 3.7.3, Applicability. The proposed TS require that flood protection be provided at all times. The proposed requirements are applicable to the Dresden and Quad Cities plant system design and provide an adequate level of protection for plant flood protection. Because the proposed requirements are new restrictions imposed upon Dresden and Quad Cities applicable to the plant design that ensure that flood protection provisions are adequately maintained, the staff finds the Applicability Statement for proposed TS 3/4.8.E is acceptable.

### 3.5.3 Required Actions

Proposed new TS 3.8.E, ACTIONS, have been formatted in accordance with the guidelines of STS Section 3.7.3, ACTIONS. The proposed required actions deviate from STS action guidelines by maintaining administrative control over the plant-specific flood protection measures. STS guidelines specify that the flood protection measures are to be identified and listed within the action statement. The staff finds the use of administrative controls to maintain specific flood protection requirements acceptable.

The proposed TS deviates from STS guidelines by including additional actions to be taken in the event that flood levels are predicted to be exceeded rather than when the actual flood levels are exceeded. Because the proposed requirements are new restrictions imposed upon Dresden and Quad Cities applicable to the plant design that ensure that flood protection provisions are adequately maintained, the staff finds the required actions for proposed TS Section 3/4.8.E acceptable.

### 3.5.4 Surveillance Requirements

Proposed new TS 4.8.E has been formatted in accordance with the guidelines of STS Section 4.7.3. Plant specific parameters consistent with the Dresden or Quad Cities plant design have been included. The proposed Dresden and Quad Cities TS will ensure the appropriate surveillances are performed at a minimum of once every 24 hours to periodically demonstrate plant flood protection requirements. The proposed requirements are applicable to the Dresden and Quad Cities plant design and provide an adequate level of protection for plant flood protection. Because the proposed requirements are new restrictions imposed upon Dresden and Quad Cities applicable to the plant system design that ensure that flood protection provisions are adequately maintained, the staff finds the SRs for proposed TS 3/4.8.E acceptable.

### 3.5.5 Conclusion

Based on the above evaluation, the staff finds that proposed new TS 3/4.8.E, "Flood Protection," has adopted the guidelines of the STS and the deviations from the STS requirements do not reduce the margin of safety for Dresden or

Quad Cities. The staff finds proposed TS Section 3/4.8.E adds new requirements to the CTS and is therefore acceptable.

### 3.6 TS 3/4.8.F: Snubbers

The proposed TS 3/4.8.F, "Snubbers," has been formatted in accordance with the STS guidelines as modified by GL 84-13 and GL 90-09. GL 84-13 provided guidance for deletion of the snubber tables from the TSs. GL 90-09 modified the BWR STS by recommending changes to the text of the SRs for visual inspections and visual inspection acceptance criteria. The proposed TS retains the CTS requirements Section 3/4.6.I. The CTS 3.6.I requirements for Quad Cities had previously have been modified and approved by the staff on July 13, 1994, in Amendments 149/145, to be consistent with the STS guidelines and GL 90-09 and GL 84-13. Proposed TS LCO 3.8.F specifies that all required snubbers shall be operable - the only snubbers excluded from this requirement are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed would not have adverse impact on any safety related systems.

#### 3.6.1 LCO

Proposed LCO 3.8.F has been formatted in accordance with the guidelines of STS and GL 84-13 and GL 90-09. Proposed TS LCO 3.8.F retains the requirements from CTS Section 3.6.I. Snubbers are provided to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic event or other event initiating dynamic loads. The proposed LCO requirements will continue to assure the operability of the snubbers, therefore, the staff finds the proposed LCO for TS 3.8.F acceptable.

#### 3.6.2 Applicability

The proposed Applicability for TS 3/4.8.F has been formatted in accordance with the guidelines of the STS. The proposed applicability retains the requirements from CTS 3/4.6.I. The CTS requires snubbers to be operable during all modes of operation except cold shutdown (TS MODE 4) and refueling (TS MODE 5). The proposed TS requirements expand the applicability to include snubbers on systems that are required OPERABLE during MODES 4 and 5. The staff finds the proposed Applicability for TS 3.8.F is an enhancement and is, therefore, acceptable.

#### 3.6.3 Required Actions

The proposed TS 3/4.8.F, required actions have been formatted in accordance with STS guidelines as modified by GL 90-09 and GL 84-13. CTS Section 3.6.1.2 requirements states "From and after the time a snubber is determined to be inoperable, continued reactor operation is permissible only during the succeeding 72 hours unless the snubber is sooner made operable or replaced." In addition, CTS Section requirements 3.6.I.3 states "If the requirements of 3.6.I.1 and 3.6.I.2 can not be met, an orderly shutdown shall be initiated and

reactor shall be in cold shutdown or refuel condition within 36 hours." The proposed TS 3.8.F relaxes the current requirements of shutting down the plant if a snubber is declared inoperable. The proposed TS are formatted in accordance with the guidance contained in GLs 84-13 and 90-09, which provide that if a snubber is declared inoperable you shall declare the system to which the snubber is attached and supports, inoperable and subsequently follow the action requirements for the affected system. This potentially extends the CTS AOT for snubbers. However, the more specific requirements outlined within the proposed TS 4.8.F SRs in conjunction with the proposed AOT compensate for this relaxation. In addition, the proposed TS action requirements maintain adequate levels of plant safety such that, the proposed TS requirements, taken as a whole, do not reduce existing plant safety margins; therefore, the staff finds the proposed required actions for TS 3.8.F acceptable.

#### 3.6.4 Surveillance Requirements

The proposed SR for TS 4.8.F have been formatted in accordance with the STS guidelines as modified by GL 84-13 and GL 90-09. The proposed SR have retained CTS Section 4.6.I requirements. Because the proposed requirements have retained the CTS requirements and have been formatted in accordance with the STS guidelines as modified by GLs 84-14 and 90-09 requirements, the NRC staff finds the SR for TS 4.8.F acceptable.

#### 3.6.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.F "Snubbers" has adopted the guidelines of the STS as modified by GL 84-13 and GL 90-09. Deviations from the CTS requirements do not reduce the margin of safety. Therefore, the staff finds proposed TS Section 3/4.8.F to be acceptable.

#### 3.7 TS 3/4.8.G: Sealed Sources

Proposed TS Section 3/4.8.G, "Sealed Sources," has been formatted in accordance with the guidelines of STS Section 3/4.7.6. CTS requirements for Dresden Section 3/4.G and 3/4.F for Quad Cities have been incorporated into proposed TS 3/4.8.G.

##### 3.7.1 LCO

Proposed TS 3.8.G, LCO, has retained the requirements from current Dresden TS 3.8.G and current Quad Cities TS 3.8.F and is consistent with STS 3.7.6, LCO. The proposed LCO specifies the limit for the amount of removable contamination on a sealed source. The proposed limits retain the CTS limits. Therefore, the proposed TS requirements provide an adequate level of protection regarding sealed source controls. Therefore, the staff finds the proposed LCO for TS 3.8.G to be acceptable.

The CTS also contain a requirement that an inventory of radioactive materials be maintained. This has been deleted in the proposed TS consistent with STS

3/4.7.6. The current requirement provides information that is inappropriate for inclusion within the TS. As such, the requirements to maintain a complete inventory of radioactive material will be administratively controlled as well as controlled by 10 CFR Parts 30, 40 and 70. These procedural details that have been removed from the TS are not required by the Commission's regulations to be included in the TS. They have been relocated to administrative controls. The staff has concluded that relocation of the inventory control requirements is acceptable because (1) their inclusion in TS is not specifically required by 10 CFR 50.36 or other regulations, and (2) inventory control is not required to avert an immediate threat to the public health and safety. The staff has determined that the requirements for these systems are not required to be in the TS under 10 CFR 50.36 or Section 182a of the Atomic Energy Act. Further, they do not fall within any of the four criteria discussed in Section 2.0, above. Because the requirements provide design details or function, more appropriately controlled outside of the TS, the NRC staff finds the relocation of these details acceptable.

The proposed change provides an equivalent level of protection for the plant. Because the requirements will continue to be controlled, the staff finds the proposed changes acceptable. Based on the above, the staff finds the proposed LCO for TS 3.8.G acceptable.

### 3.7.2 Applicability

Proposed TS 3.8.G, Applicability, has incorporated the requirements of current Dresden TS 3.8.G and current Quad Cities TS 3.8.F, and is based on STS 3.7.6, Applicability. The proposed TS maintain the CTS applicability of "at all times." Because the proposed TS Applicability maintains the CTS requirements the proposed Applicability statement is acceptable.

### 3.7.3 Required Actions

TS 3.8.G, required actions have been formatted in accordance with the guidelines of STS Section 3.7.6. The proposed TS required actions have retained all the CTS TS requirements from Dresden and Quad Cities. The proposed required actions specify that if a sealed source exceeds the specified limit, the sealed source is either decontaminated or be properly disposed of. In addition reporting requirements are also required. Therefore, the staff finds the proposed required actions for TS 3.8.G acceptable.

### 3.7.4 Surveillance Requirements

Proposed TS SRs 4.8.G have been formatted in accordance with the guidelines of STS Section 4.7.6. The proposed SR have incorporated the CTS requirements from Dresden and Quad Cities. The STS terminology of "sealed sources and fission detectors" has been shortened to "sealed sources" since fission detectors are considered to be sealed sources by the LCO. This deviation from STS language is administrative in nature, consistent with the current licensing basis and does not adversely affect existing plant safety margins.

The proposed TS provides an adequate level of testing regarding sealed sources. Therefore, the staff finds the proposed SR for TS 4.8.G acceptable.

### 3.7.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.G "Sealed Sources" has adopted the guidelines of the STS and incorporated the existing CTS requirements. Therefore, the staff finds proposed TS Section 3/4.8.G to be acceptable.

### 3.8 Relocation of TS

The radiological effluent TS (RETS) from CTS Section 3/4.5 have been relocated to owner-controlled documents based on the guidelines of GL 89-01, "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of Technical Specifications and Relocation of Procedural Details of RETS to the Offsite Dose Calculational Manual or the Process Control Program." RETS provide the offsite release limits and radiation dose limits and monitoring and reporting criteria for gaseous and liquid radioactive effluents. RETS are not related to the detection of abnormal degradation of the reactor coolant pressure boundary, boundary conditions for design basis accidents and transients, or functions determined to be important to risk or operating experience. Therefore, the staff had determined that programmatic controls could be implemented in the Administrative Controls section of the TS to satisfy the existing regulatory requirements for RETS. The staff also determined that the procedural details of the TS on radioactive effluents and radiological environmental monitoring could be relocated to the Offsite Dose Calculational Manual (ODCM), while the procedural details for processing wet solid wastes could be relocated to the Process Control Program (PCP).

In accordance with the guidance of GL 89-01, the proposed TS will relocate the following CTS to the ODCM or the PCP.

<u>Specification</u>	<u>Title</u>
3/4.8.A	Gaseous Effluents (this TS has been partially relocated to the ODCM and the remaining portions relocated to TS 3/4.2, 3/4.8.H, and 3/4.8.I)
3/4.8.B	Liquid Effluents
3/4.8.E (Dresden) 3/4.8.D (Quad Cities)	Radiological Environmental Monitoring Program
3/4.8.F (Dresden) 3/4.8.E (Quad Cities)	Solid Radioactive Waste

These procedural details that have been removed from the TS are not required by the Commission's regulations to be included in the TS. They have been

prepared for incorporation in the ODCM or PCP upon issuance of this license amendment and may be subsequently changed by the licensee in accordance with 10 CFR 50.59. The staff has concluded that relocation of RETS is acceptable because (1) their inclusion in TS is not specifically required by 10 CFR 50.36 or other regulations, (2) RETS are not required to avert an immediate threat to the public health and safety, and (3) changes that are deemed to involve an unreviewed safety question will require prior NRC approval in accordance with 10 CFR 50.59(c). The staff has determined that the requirements for these systems are not required to be in the TS under 10 CFR 50.36 or Section 182a of the Atomic Energy Act. Further, they do not fall within any of the four criteria discussed in Section 2.0, above. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.59. Because the requirements provide design details or function more appropriately controlled outside of the TS, the NRC staff finds the relocation of these details acceptable.

The following TS have been retained in the TS in accordance with the guidance of GL 89-01. CTS 3/4.8.A.5 has been relocated to proposed TS 3/4.8.H, "Offgas Explosive Mixture," and 3/4.2.H, "Explosive Gas Monitoring." CTS 3/4.8.A.7 has been relocated to proposed TS 3/4.8.I, "Offgas Activity." Current 3/4.8.D for Dresden has been relocated to proposed TS 3/4.8.J, "Liquid Holdup Tanks." The retained TS Sections have been formatted in accordance with the STS guidelines as modified by GL 89-01. The retained TS have incorporated the CTS requirements for each of the Sections and are, therefore, acceptable.

### 3.9 TS 3/4.8.J: Safe Shutdown Make-up Pumps (SSMP) (Quad Cities)

The proposed TS 3/4.8.J, "Safe Shutdown Make-up Pumps," is a new TS for Quad Cities. The TS will assure the operability and testing of the Safe Shutdown Make-up Pump. The pumps are necessary to meet the requirements of 10 CFR Part 50, Appendix R, for Fire Protection. The TS have been formatted in accordance with GL 81-12 requirements and the STS guidelines.

#### 3.9.1 LCO

The proposed LCO ensures that appropriate controls are included within the TSs for the SSMP system. The SSMP system provides a common backup to the Unit 1 and 2 reactor core isolation cooling (RCIC) systems to satisfy the requirements of 10 CFR 50, Appendix R, Section III.G, "Fire Protection of Safe Shutdown Capability." The proposed LCO requires that the SSMP be maintained operable. Because the proposed new LCO ensures that appropriate controls are maintained for the SSMP at Quad Cities, and enhances the CTS, the staff finds the proposed LCO for TS 3.8.J acceptable.

#### 3.9.2 Applicability

The SSMP system is required to be OPERABLE when either Unit 1 or Unit 2 is in OPERATIONAL MODE(s) 1, 2 or 3 with reactor steam dome pressure greater than 150 psig. The SSMP fulfills the same makeup function as the RCIC performs. The SSMP is required if the RCIC becomes disabled during a fire. As such, the

proposed TS requirements are comparable, where applicable, to the TSs for the RCIC system. The proposed applicability for the SSMP system is consistent with the Applicability for RCIC as discussed in TS 3/4.5.D. Because the proposed requirements ensures that appropriate controls are maintained for the SSMP at Quad Cities, the staff finds the proposed Applicability Statements for TS 3.8.J acceptable.

### 3.9.3 Required Actions

With the SSMP system inoperable, a 67-day allowable out-of-service is provided to restore the inoperable system to OPERABLE status before the Unit(s) must be shut down. The proposed AOT is consistent with Fire Protection Plan Documentation Package (FPPDP), "Fire Protection Reports," Volume 2, Tab 4, Safe Shutdown Analysis for Quad Cities and the guidelines of GL 81-12; therefore, the staff finds the proposed required action for TS 3.8.J acceptable.

### 3.9.4 Surveillance Requirements

The proposed SRs are new requirements and provide adequate assurance that the SSMP system will be OPERABLE when required. The SSMP fulfills the same safety function as the RCIC system in the event of a fire. As such the proposed TS requirements are comparable, where applicable, to the TS for the RCIC system. The proposed monthly verification of valve line-ups provides increased assurance that the SSMP system will be operationally ready and is consistent with similar SRs for RCIC as discussed in TS 3/4.5.D. The proposed quarterly verification of pump flow is consistent with the plant IST program. A design flow test can be performed during plant operation using a full flow test return line to the CCSW. Therefore, the staff finds the proposed SR for TS 4.8.J acceptable.

### 3.9.5 Conclusion

Based on the above evaluation, the staff finds that proposed TS 3/4.8.J, "Safe Shutdown Make-up Pumps," for Quad Cities has adopted the guidelines of the STS. The proposed TS add new requirements for Quad Cities. Therefore, the staff finds proposed TS Section 3/4.8.J acceptable.

### 3.10 Open Items

The following issues will remain open pending their resolution in the clean-up amendment.

1. TS 3.8.D, ACTION 1 - the AOT should be revised from 14 days to 7 days.
2. Add TS requirements for the Control Room Filtration and Air Conditioning System.
3. TS 4.8.D.4 - the service usage testing requirements must be justified or revised.

#### 4.0 SUMMARY

The proposed TS for Section 3/4.8, "Plant Systems," will be clearer and easier to use as a result of the adaptation of the STS format. The changes result in additional limitations, restrictions, or changes based on generic guidance. It is the staff's assessment that the changes proposed in this amendment do not pose any decrease in safety, or an increase in the probability of an analyzed or unanalyzed accident. The revised TS changes do not reduce the existing margin of safety set forth by the CTS. Therefore, the staff finds the proposed TS changes acceptable.

#### 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change SRs. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 37086). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

#### 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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