UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
April 26, 1989

Docket File

MEMORANDUM FOR: Sholly Coordinator

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

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE - NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO PROVISIONAL OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING (TAC NOS. 71610 AND 71611)

Commonwealth Edison Company, Docket Nos. 50-237 and 50-249, Dresden Nuclear Power Station, Unit Nos. 2 and 3, Grundy County, Illinois

Date of application for amendment request: December 21, 1988

Description of amendment request: Commonwealth Edison Company (CECo) has proposed changes to the Dresden Units 2 and 3 Technical Specifications (TS) that would remove excessive testing requirements for other systems or subsystems of the Emergency Core Cooling Systems (ECCS) or Standby Gas Treatment Systems (SBGT) when one system or subsystem is inoperable. Present TS surveillance requirements for ECCS and SGTS provide for demonstrating the operability of other systems or subsystems when one of the following systems, subsystems, or components is inoperable: Core Spray subsystem; Low Pressure Coolant Injection (LPCI) pump; LPCI subsystem; Containment Cooling subsystem service water pump, Containment Cooling subsystem; High Pressure Coolant Injection (HPCI) subsystem; relief valves of the Automatic Depressurization System; Isolation Condenser system; unit or shared diesel generator; or SBGT subsystem. For example, if one Core Spray subsystem is inoperable, the current TS would require that the operability of the operable Core Spray subsystem and the LPCI subsystem be demonstrated immediately and daily thereafter.

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The proposed amendment would remove excessive system testing requirements while maintaining adequate assurance of systems operability needed for accident mitigation. The present testing requirements for ECCS and SBGT were chosen to be very conservative at a time when there was a lack of plant operating history and lack of a sufficient equipment failure data base to choose other testing methods. Since initial development of the Dresden Unit 2 and 3 Technical Specifications, plant operating experience has demonstrated that multiple testing of other ECCS or SBGT systems when one system is inoperable is not necessary to provide adequate assurance of system operability. Operability of these systems is shown by checking records to verify that valve lineups, electrical lineups and instrumentation requirements have not been changed since the last time the system was verified to be operable. These changes are consistent with more recent BWR Technical Specifications that accept system operability based on satisfactory performance of monthly, quarterly, refueling interval, post maintenance or other specified performance tests without requiring additional testing when another system is inoperable.

In addition the proposed amendment would change the following:

(1) The HPCI operability requirements in TS Sections 3.5.C/4.5.C from whenever the reactor pressure is greater than 90 psig to whenever the reactor pressure is greater than 150 psig. Currently the HPCI isolates below a steam line pressure of 100 psig which is inconsistent with the operability requirements. In addition, the proposed change to 150 psi is supported by system design flow and pressure requirements, present testing requirements, and provides margin to the present setpoint for system automatic isolation on low steam line pressure;

(2) The Surveillance Requirement 4.5.C.1 of the TS for the HPCI pump flow testing to add a second low reactor steam pressure flow rate test which will be performed each refueling outage or an outage during which HPCI maintenance was performed;

(3) TS Sections 3.5.D and 3.5.E to raise the minimum operability requirements for the Automatic Pressure Relief and the Isolation Condenser from 90 psig to 150 psig. This change of operability will preserve consistency between the TS for HPCI, Automatic Depressurization System and the Isolation Condenser;

(4) Sections 3.7.B.2/4.7.B.2 and 3.7.B.3/4.7.B.3 of the TS for the SGTS to delete outdated requirements, provide clarifications, provide administrative changes and provide frequency of performing SGTS surveillances consistent with other testing provisions in the TS and in compliance with Regulatory Guide 1.52; and

(5) Sections 4.7.C.1.a, b and d for Dresden Unit 2, 3.7.C.2/4.7.C.2, and Definition Z of the TS for the Secondary Containment Integrity Requirements to: (a) delete outdated requirements; (b) provide administrative changes; (c) provide clarifications (i.e. change term "circuit" to describe SGTS to "subsystem"; (c) allow 4 hours to restore secondary containment prior to requiring an orderly reactor shutdown to at least hot shutdown within the next 12 hours and cold shutdown within the following 24 hours; (d) a change to surveillance frequency to permit performance within allowed extensions; and (e) relocate operability requirements of the Core Spray and LPCI subsystems from the Secondary Containment TS Section to Section 3.5.A related to Core Spray and LPCI requirements.

Basis for proposed no significant hazards consideration determination:

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not; (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The licensee addressed the above three standards in the amendment application as follows:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated because:

a. The present testing requirements for ECCS and SBGT when one system (or subsystem) is inoperable represent requirements beyond those necessary to adequately demonstrate system operability. Other testing requirements that are not affected by this proposed amendment provide assurance that remaining ECCS and SBGT systems are operable and capable of performing their design intent. The proposed deletion of multiple system testing will conform Dresden Units 2 and 3 to current BWR plant operating practices. ECCS and SBGT perform accident mitigation functions. Because changing testing requirements will not change the probability of accident precursors, this proposed amendment does not affect the probability of an

accident previously evaluated. The proposed amendment does not involve a significant increase in the consequences of an accident previously evaluated because testing other than multiple system testing ensures that the present level of operability for the ECCS and SBGT systems is maintained.

Changes proposed to Sections 3.5.A.7 and 3.5.F.1 are administrative in nature and do not alter the intent of present Technical Specifications requirements.

(b) The proposed amendment allows the HPCI operability provisions in LCO 3.5.C.1 and 3.5.C.3 to be in compliance with system design requirements. The proposed amendment clarifies and adds to the surveillance requirements for HPCI subsystem testing. Additional HPCI subsystem flow rate testing is specified on an operating cycle interval to ensure HPCI operability at low reactor pressure. When performed during startup after an outage, this testing will be completed prior to reaching rated reactor pressure, thus providing assurance that HPCI will function as designed. Because the proposed changes ensure consistency between design and Technical Specification requirements and enhance present HPCI testing provisions, no increase in accident probability or consequences is involved.

(c) The proposed amendment preserves consistency between Technical Specifications for HPCI, ADS and the Isolation Condenser. System availability at reactor pressures exceeding the capabilities of the

LPCI and core spray systems is not changed. FSAR Section 6.2.7 analyses take credit for LPCI and core spray flow prior to reaching a reactor pressure of 150 psig. Section 6.2.7 does not take credit for the Isolation Condenser.

(d) The changes proposed for the SBGT system specification involve administrative as well as changes to provide consistent application of surveillance interval provisions. The Note 1 provisions are outdated and not required to be used for the SBGT system. The terminology change to SBGT "subsystem" is administrative in nature and cannot affect any accident analysis. The change to the surveillance frequency recognizes that use of maximum surveillance interval extensions is appropriate and follows the intent of present Definition CC. The performance of the required surveillances will be performed with the allowed extensions per Definition CC. This surveillance frequency change is not significant and follows present industry testing methods for allowing surveillance interval extensions. Due to the administrative nature of the changes, and because the change is made to provide consistency in application of surveillance intervals without reducing the availability of the SBGT system, these changes do not represent a significant increase in the probability or consequences of an accident previously evaluated.

(e) The proposed amendment adds reasonable repair time for Secondary Containment Integrity and specifies an orderly plant shutdown rather than defaulting to the provisions of Specification 3.0.A. Adding these provisions to the Technical Specifications does not affect an

accident previously evaluated. The 4-hour time frame allowed for repairs is very small in terms of providing an accident window. The proposed 36-hour time for an orderly reactor shutdown is similar to current provisions in LCO 3.7.B.1.b on SBGT and is the same shutdown provisions required by current Specification 3.0.A. Therefore, the 4-hour repair time and the 36-hour reactor shutdown provision do not involve a significant increase in the consequences of an accident previously evaluated. The proposed amendment will clarify the provisions of Definition Z on Secondary Containment Integrity and this change is considered administrative in nature. The changes to delete completed preoperational testing, delete first cycle testing requirements, delete an expired one-time exception and to move 3.7.C.2/4.7.C.2 to Section 3.5.A are also considered to be administrative in nature. These administrative changes cannot affect the probability or consequences of an accident previously evaluated.

(2) Create the possibility of a new or different kind of accident from any previously evaluated because:

a. The change deletes excessive testing requirements for ECCS and SBGT, provides clarification of terminology, and provides consistency in location of requirements. These changes do not introduce any new modes of operation which could initiate a new or different kind of

accident. The proposed amendment will not introduce any new types of equipment failure that could cause a new or different kind of accident.

b. The proposed change above does not modify the present HPCI system design or reduce its capability to perform its intended design function. HPCI subsystem testing and demonstration of operability is enhanced by the proposed changes; therefore, there is no possibility of a new or different kind of accident.

c. The proposed change does not modify the present ADS and Isolation Condenser design or reduce its capability to perform their intended function.

d. The changes for SBGT do not allow any new modes of plant operation nor do they represent any physical modifications to the SBGT system. Therefore, these changes cannot create the possibility of a new or different kind of accident.

e. This amendment request adds a repair time for Secondary Containment Integrity and places reactor shutdown provisions in LCO 3.7.C. This change does not allow any new modes of operation which could initiate a new or different kind of accident. This change also provides a clarification which is administrative in nature to ensure proper interpretation of Definition Z on Secondary Containment Integrity requirements. The remaining changes proposed to Secondary Containment section are administrative in nature; therefore, there is not possibility of a new or different kind of accident from any previously evaluated due to these changes.

(3) Involve a significant reduction in the margin of safety because:

a. The proposed amendment will not reduce the availability of ECCS or SBGT systems when required to mitigate accident conditions. Excessive testing of systems and components can reduce rather than increase reliability. An acceptable level of testing to demonstrate operability currently being used at later BWR plants does not include multiple testing of other ECCS or SBGT systems when one or more systems is inoperable. The testing that will remain in the Technical Specifications provides adequate assurance of system performance. The two administrative changes proposed to Section 3.5, due to their nature, cannot involve a significant reduction in the margin of safety.

b. The proposed changes raise the Technical Specification minimum reactor pressure for operability of HPCI from 90 to 150 psig; however, this change is made to recognize present HPCI design parameters and to correct the Technical Specification. HPCI operating pressure overlap with the low pressure ECCS injection pumps is not affected by this change since, (a) actual HPCI design flow and pressure ability has not been modified, and (b) the low pressure system admission valves actuate between 300 and 250 psig during a design basis LOCA blowdown. HPCI testing requirements are

clarified and enhanced by these proposed changes thus providing additional assurance of HPCI operability when required. HPCI system design performance requirements are not modified by this change.

c. The proposed changes raise the Technical Specification minimum reactor pressure for operability of Automatic Pressure Relief and the Isolation Condenser from 90 to 150 psig. Adequate system operating pressure overlap with the low pressure ECCS injection pumps is preserved since the low pressure admission valves are set to open between 300 and 350 psig.

d. The changes to SBGT involving deletion of Note 1 and changing terminology to SBGT "subsystem" are administrative changes that cannot affect any margin of safety. The change to the surveillance frequency can allow longer surveillance intervals then present, but these allowances are small and are accepted as standard industry testing practice. Therefore, the change to the surveillance frequency does not represent a significant reduction in the margin of safety involving availability of the SBGT system.

(e) The proposed 4-hour repair time for Secondary Containment Integrity is a reasonable time frame to allow for determination of the problem and for correcting the problem. The present omission of a repair time could cause an unneeded shutdown and does not reflect current operating practice at later BWR plants. The 36-hour plant shutdown requirement reflects present 3.0.A requirements. The proposed change to Definition Z on Secondary Containment Integrity, the

proposed deletion of Surveillance Requirements 4.7.C.1.a, 4.7.C.1.b, 4.7.C.1.d for Unit 2, and the proposed change to move Specification 3.6.C.2/4.7.C.2 are administrative in nature and do not represent a reduction in the margin of safety.

The staff has reviewed the licensee's no significant hazards analyses given above. Based on this review, the staff proposes to determine that the proposed amendments meet the three 10 CFR 50.92(c) standards and do not involve a significant hazards consideration.

Local Public Document Room location: Morris Public Library, 604 Liberty Street, Morris, Illinois 60450.

Attorney for licensee: Michael 1. Miller, Esquire; Sidley and Austin, One First National Plaza, Chicago, Illinois 60603.

NRC Project Director: Daniel R. Muller

Byron L. Siegel

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

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NRC Project Director: Daniel R. Muller

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

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