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10 CFR 50.90

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December 20, 2002

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 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

Subject: Request for License Amendment to Eliminate Main Steam Isolation Valve Closure and Low Condenser Vacuum Scram Functions During Startup Mode

References: (1) General Electric Nuclear Energy Service Information Letter 107, "Increasing Flexibility of Reactor Startups," October 31, 1974

(2) NEDO-20697, "Bottled-Up Operation of a BWR," November 1974

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests an amendment to Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3. The proposed amendment revises the applicability of Technical Specification (TS) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed amendment also deletes Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10. No changes are being made to the required number of channels per trip system, surveillance requirements, or allowable values for these functions during Mode 1 operation.

The DNPS TS currently require a reactor scram if vessel pressure is ≥ to 600 psig with the reactor mode switch in startup and the main steam isolation valves closed or main condenser vacuum low. This scram logic is the result of experience gained during the startup of an early vintage boiling water reactor in 1966 when operators had difficulty controlling reactor power above approximately 600 psig without pressure control. Subsequently, after initial startup of DNPS, General Electric (GE) recommended in Reference 1 that the scram requirement be eliminated following successful tests during startup of a BWR/4 plant, as discussed in Reference 2. Reference 2 is included as Attachment I. The tests described in Reference 2 indicate that the early experience may

A001

not be inherent to the boiling water reactor design. GE Nuclear Energy has performed an evaluation, which is provided as Attachment F, to demonstrate that the test described in Reference 2 is applicable to DNPS. The evaluation concludes that Reference 2 is applicable to DNPS and the requirement for Functions 5 and 10 to be operable while in Mode 2 with reactor pressure ≥ 600 psig can be eliminated.

The proposed change deletes the requirement for Functions 5 and 10 to be operable while in Mode 2 with reactor pressure ≥ 600 psig, since tests have proven that this scram logic is not required for plant safety. Therefore, this TS change reduces the risk of an unnecessary plant transient while in Mode 2 by eliminating the potential for a reactor scram due to a single point failure on one pressure transmitter or RPS bus. A similar change was made for the Quad Cities Nuclear Power Station during initial plant licensing.

This request is subdivided as follows.

1. Attachment A provides a description and safety analysis of the proposed changes.

2. Attachment B describes the evaluation performed using the criteria in 10 CFR 50.91(a), "Notice for public comment," paragraph (1), which provides information supporting a finding of no significant hazards consideration using the standards in 10 CFR 50.92, "Issuance of amendment," paragraph (c).

3. Attachment C provides information supporting an environmental assessment.

4. Attachment D contains the marked-up TS pages with the proposed changes indicated. A marked-up copy of the affected TS Bases is also included for informational purposes.

5. Attachment E contains revised TS pages with the proposed changes incorporated.

6. Attachment F provides an evaluation, performed by GE Nuclear Energy, that concludes that the elimination of the scram requirement at high pressure during startup with the main steam isolation valves closed, or main condenser vacuum low, for DNPS is acceptable. Some of the information contained in Attachment F is classified as proprietary to GE Nuclear Energy. The proprietary information is of the type that GE Nuclear Energy maintains in confidence and withholds from public disclosure. It has been handled and classified as proprietary as supported by the affidavit in Attachment H. EGC hereby requests that this information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790, "Public inspections, exemptions, requests for withholding." Attachment G provides a redacted, non-proprietary version of the information in Attachment F.

7. Attachment I provides a copy of Reference 2.

The proposed changes have been reviewed by the DNPS Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the EGC Quality Assurance Program.

EGC requests approval of the proposed amendment by December 22, 2003. Once approved, the amendment shall be implemented within 60 days. This implementation period will provide adequate time for station documents to be revised using the appropriate change control mechanisms.

In accordance with 10 CFR 50.91(b), EGC is notifying the State of Illinois of this application for changes to the TS by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Mr. Kenneth M. Nicely at (630) 657-2803.

Respectfully,

T. W. Simpkin
Manager – Licensing
Mid-West Regional Operating Group

Attachments:

Affidavit
Attachment A: Description and Safety Analysis for the Proposed Changes
Attachment B: Information Supporting a Finding of No Significant Hazards Consideration
Attachment C: Information Supporting an Environmental Assessment
Attachment D: Marked-Up Technical Specifications and Bases Pages for Proposed Changes
Attachment E: Typed Pages for Technical Specifications Changes
Attachment F: GE-NE-0000-0005-7308-01P, "Dresden Unit 2 and 3 – Elimination of MSIV Closure and Low Condenser Vacuum Scram Function During Startup Mode," Revision 2, December 2002 (PROPRIETARY VERSION)
Attachment G: GE-NE-0000-0005-7308-01, "Dresden Unit 2 and 3 – Elimination of MSIV Closure and Low Condenser Vacuum Scram Function During Startup Mode," Revision 1, December 2002 (NON-PROPRIETARY VERSION)
Attachment H: General Electric Company Affidavit
Attachment I: NEDO-20697, "Bottled-Up Operation of a BWR," November 1974

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

STATE OF ILLINOIS	)	
COUNTY OF DUPAGE	)	
IN THE MATTER OF	)	
EXELON GENERATION COMPANY, LLC	)	Docket Numbers
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3	)	50-237 and 50-249

SUBJECT: **Request for License Amendment to Eliminate Main Steam Isolation Valve Closure and Low Condenser Vacuum Scram Functions During Startup Mode**

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

T. W. Simpkin
Manager – Licensing
Mid-West Regional Operating Group

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 20th day of December, 2002.

"OFFICIAL SEAL"
TIMOTHY A. BYAM
COMMISSION EXPIRES 12/04/05

Notary Public

DESCRIPTION AND SAFETY ANALYSIS FOR THE PROPOSED CHANGES

A. SUMMARY OF THE PROPOSED CHANGES

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) requests an amendment to Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3. The proposed amendment revises the applicability of Technical Specification (TS) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed amendment also deletes Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10.

The DNPS TS currently require a reactor scram if vessel pressure is ≥ to 600 psig with the reactor mode switch in startup (i.e., Mode 2) and the main steam isolation valves (MSIVs) closed or main condenser vacuum low. This scram logic is the result of experience gained during the startup of an early vintage boiling water reactor in 1966 when operators had difficulty controlling reactor power above approximately 600 psig without pressure control. Subsequently, after initial startup of DNPS, General Electric (GE) recommended in Reference I.1 that the scram requirement be eliminated following successful tests during startup of a BWR/4 plant, as discussed in Reference I.2. Reference I.2 is included as Attachment I. GE Nuclear Energy has performed an evaluation (i.e., Reference I.3) to demonstrate that the test described in Reference I.2 is applicable to DNPS. The evaluation concludes that Reference I.2 is applicable to DNPS and the requirement for Functions 5 and 10 to be operable while in Mode 2 with reactor pressure ≥ 600 psig can be eliminated. The basis for this conclusion is that GE has confirmed the applicability of the test described in Reference I.2 to DNPS.

A complete description of the proposed changes is given in Section E, "Description of the Proposed Changes," of this attachment. Attachment D provides the marked-up TS pages indicating the proposed changes. Marked-up Bases pages are also provided for informational purposes only. Attachment E provides typed TS pages incorporating the proposed changes.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

TS Section 3.3.1.1 provides the requirements for RPS instrumentation. The various functions of the RPS instrumentation are specified on TS Table 3.3.1.1-1, along with their applicable operational modes, surveillance requirements, and allowable values. Table 3.3.1.1-1 of TS 3.3.1.1 requires Function 5, "Main Steam Isolation Valve – Closure," and Function 10, "Turbine Condenser Vacuum – Low," to be operable in Mode 1 and in Mode 2 with reactor pressure ≥ 600 psig.

Condition D of TS 3.3.1.1 requires the Condition referenced in Table 3.3.1.1-1 for the channel to be entered if the Required Action and associated Completion Time of Condition A, B, or C are not met. For Functions 5 and 10, Table 3.3.1.1-1 requires Condition F of TS 3.3.1.1 to be entered if the required channels are not restored to operable status or placed in trip (or the

associated trip system placed in trip) within the allowed Completion Time. The required action for Condition F is to be in Mode 2 within eight hours, and reduce reactor pressure to < 600 psig within eight hours. Condition F.2 is modified by a note that states "Only required to be met for Function 5, Main Steam Isolation Valve – Closure, and Function 10, Turbine Condenser Vacuum – Low."

C. BASES FOR THE CURRENT REQUIREMENTS

MSIV closure results in loss of the main turbine and the condenser as a heat sink for the nuclear steam supply system and indicates a need to shut down the reactor to reduce heat generation. Therefore, a reactor scram is initiated on an MSIV closure signal before the MSIVs are completely closed in anticipation of the complete loss of the normal heat sink and subsequent overpressurization transient. Function 5, Main Steam Isolation Valve – Closure, is required to be operable in Mode 1 and Mode 2 with reactor pressure ≥ 600 psig since, with the MSIVs open and the heat generation rate high, a pressurization transient can occur if the MSIVs close. In Mode 2 and reactor pressure < 600 psig, the heat generation rate is low enough so that the other diverse RPS functions provide sufficient protection. This function is automatically bypassed with the reactor mode switch in any position other than run and reactor pressure < 600 psig.

Function 10, Turbine Condenser Vacuum – Low, is provided to shut down the reactor and reduce the energy input to the main condenser to help prevent overpressurization of the main condenser in the event of a loss of the main condenser vacuum. For the loss of condenser vacuum event, the reactor scram reduces the amount of energy required to be absorbed by the main condenser and helps to ensure the minimum critical power ratio safety limit is not exceeded by reducing the core energy prior to the fast closure of the turbine stop valves. This function helps maintain the main condenser as a heat sink during this event. Function 10 is required to be operable in Mode 1 and Mode 2 when reactor pressure is ≥ 600 psig since, in these Modes, a significant amount of core energy can be rejected to the main condenser. During Mode 2 with reactor pressure < 600 psig, and Modes 3, 4, and 5, the core energy is significantly lower. This function is automatically bypassed with the reactor mode switch in any position other than run and reactor pressure is < 600 psig.

As stated above, Functions 5 and 10 of TS Table 3.3.1.1-1 are required to be operable in Mode 1 and Mode 2 with reactor pressure ≥ 600 psig. For these functions, Table 3.3.1.1-1 requires Condition F of TS 3.3.1.1 to be entered if the required channels are not restored to operable status or placed in trip (or the associated trip system placed in trip) within the allowed Completion Time. The required action for Condition F is to be in Mode 2 within eight hours, and reduce reactor pressure to < 600 psig within eight hours. The basis for these required actions is to place the plant in a Mode or other specified condition in which the limiting condition for operation does not apply.

D. NEED FOR REVISION OF THE REQUIREMENTS

The RPS is comprised of two independent trip systems (A and B) with three logic channels in each trip system (automatic logic channels A1 and A2 and manual logic channel A3, automatic logic channels B1 and B2 and manual logic channel B3). The outputs of the automatic logic

channels in a trip system are combined in a one-out-of-two logic so that either channel can trip the associated trip system. The tripping of both trip systems will produce a reactor scram. This logic arrangement is referred to as a one-out-of-two taken twice logic.

There are two pressure transmitters associated with automatically bypassing Functions 5 and 10 of TS 3.3.1.1 with the reactor mode switch in any position other than run and reactor pressure < 600 psig. Each pressure transmitter provides an input to one automatic logic channel in each trip system. Thus, when reactor pressure is < 600 psig and a fault on one pressure transmitter occurs, or when power to one RPS bus is lost, a full scram condition is created (i.e., one automatic logic channel is tripped in each RPS trip system). Revising TS 3.3.1.1 to remove the requirement for Functions 5 and 10 to be operable in Mode 2 with reactor pressure ≥ 600 psig will eliminate the potential for a reactor scram due to a fault on one pressure transmitter or RPS bus, thus eliminating the potential for a scram due to a single point failure.

In addition, functional testing and calibration of these pressure transmitters must be performed to meet surveillance requirements in TS Section 3.3.1.1. Procedures that implement these surveillance requirements require certain valves and other plant components to be manipulated. A human error in these manipulations, such as opening a valve too fast, unnecessarily increases the potential for a reactor scram or other automatic protective actuation. Revising TS 3.3.1.1 to remove the requirement for Functions 5 and 10 to be operable in Mode 2 with reactor pressure ≥ 600 psig will eliminate the potential for a reactor scram or other automatic protective actuation during calibration and testing activities.

E. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes revise TS Table 3.3.1.1-1 to require Function 5, Main Steam Isolation Valve – Closure, and Function 10, Turbine Condenser Vacuum – Low, to be operable only in Mode 1. The existing requirement for these functions to be operable in Mode 2 with reactor pressure ≥ 600 psig is being eliminated. Other diverse RPS functions, such as Intermediate Range Monitors Neutron Flux–High and Reactor Vessel Steam Dome Pressure–High, will continue to provide adequate protection while in Mode 2 with reactor pressure ≥ 600 psig. No changes are being made to the required number of channels per trip system, surveillance requirements, or allowable values for these functions during Mode 1 operation.

In addition, the proposed change deletes Required Action F.2 of TS 3.3.1.1, which is only required to be met for Functions 5 and 10. This change is being made to align with the proposed changes to the applicability for Functions 5 and 10, as described above.

The proposed TS changes are reflected on a marked-up copy of the affected TS pages in Attachment D. Marked-up Bases pages are also provided for informational purposes only. Revised TS pages affected by the proposed changes are provided in Attachment E. Following NRC approval of this request, EGC will revise the TS Bases, in accordance with the TS Bases Control Program of TS Section 5.5.10, "Technical Specifications (TS) Bases Control Program," to incorporate the changes identified in Attachment D.

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

DNPS TS 3.3.1.1 currently requires a reactor scram if vessel pressure is ≥ to 600 psig with the reactor mode switch in startup (i.e., Mode 2) and the MSIVs closed or main condenser vacuum low. This scram logic is the result of experience gained during the startup of an early vintage boiling water reactor in 1966 when operators had difficulty controlling reactor power above approximately 600 psig without pressure control. Subsequently, after initial startup of DNPS, GE recommended in Reference I.1 that the scram requirement be eliminated following successful tests during startup of a BWR/4 plant, as discussed in Reference I.2. GE Nuclear Energy has performed an evaluation (i.e., Reference I.3) to demonstrate that the test described in Reference I.2 is applicable to DNPS. Attachment F provides the evaluation, which concludes that elimination of the scram requirement at high pressure during startup with the MSIVs closed, or main condenser vacuum low, for DNPS is acceptable. The basis for this conclusion is that GE has confirmed the applicability of the test described in Reference I.2 to DNPS.

Some of the information contained in Attachment F is classified as proprietary to GE Nuclear Energy. The proprietary information is of the type that GE Nuclear Energy maintains in confidence and withholds from public disclosure. It has been handled and classified as proprietary as supported by the affidavit in Attachment H. EGC hereby requests that this information be withheld from public disclosure in accordance with the provisions of 10 CFR 2.790, "Public inspections, exemptions, requests for withholding." Attachment G provides a redacted, non-proprietary version of the information in Attachment F.

G. IMPACT ON PREVIOUS SUBMITTALS

EGC has reviewed the proposed changes for impact on previous submittals awaiting NRC approval, and has determined that there is an impact to a submittal dated August 16, 2002 (Reference I.4). The change proposed in Reference I.4 revises TS page 3.3.1.1-10 to modify both units' scram discharge volume water level – high surveillance requirements and the Unit 3 allowable value specified in TS Table 3.3.1.1-1. The marked-up TS pages provided in Attachment D of this submittal **do not** reflect the changes proposed in Reference I.4.

H. SCHEDULE REQUIREMENTS

EGC requests approval of the proposed changes by December 22, 2003, with a 60-day implementation period.

I. REFERENCES

I.1 General Electric Nuclear Energy Service Information Letter 107, "Increasing Flexibility of Reactor Startups," October 31, 1974

I.2 NEDO-20697, "Bottled-Up Operation of a BWR," November 1974

I.3 GE-NE-0000-0005-7308-01P, "Dresden Unit 2 and 3 – Elimination of MSIV Closure and Low Condenser Vacuum Scram Function During Startup Mode," Revision 2, December 2002

I.4 Letter from P. R. Simpson (Exelon Generation Company) to U. S. NRC, "Request for Technical Specifications Changes Related to Reactor Protection System Instrumentation (Scram Discharge Volume Water Level – High)," August 16, 2002

Attachment B

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

Summary of Proposed Changes

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) is requesting an amendment to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3. The proposed amendment revises the applicability of Technical Specification (TS) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed amendment also deletes Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10. No changes are being made to the required number of channels per trip system, surveillance requirements, or allowable values for any TS function.

No Significant Hazards Consideration Determination

According to 10 CFR 50.92, "Issuance of amendment," paragraph (c), a proposed amendment to an operating license involves no significant hazards consideration 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; or

(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.

In support of this determination, an evaluation of each of the three criteria set forth in 10 CFR 50.92 is provided below regarding the proposed license amendment.

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes to the Dresden Nuclear Power Station (DNPS) Units 2 and 3 Technical Specifications (TS) revise the applicability of TS 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed changes also delete Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10.

TS requirements that govern operability or routine testing of plant instruments are not assumed to be initiators of any analyzed event because these instruments are intended to prevent, detect, or mitigate accidents. Therefore, these proposed changes will not involve an increase in the probability of an accident previously evaluated.

Additionally, these proposed changes will not increase the consequences of an accident previously evaluated because the proposed changes do not adversely impact structures, systems, or components. These changes will not alter the operation of equipment assumed to be available for the mitigation of accidents or transients by the plant safety analysis. Functions 5 and 10 are currently required in Mode 2 with reactor pressure $\geq$ 600 psig to ensure that the reactor is shut down to prevent an overpressurization transient due to closure of main steam isolation valves or turbine stop valves. The existing scram logic is the result of experience gained during the startup of an early vintage boiling water reactor in 1966 when operators had difficulty controlling reactor power above approximately 600 psig without pressure control. Experience on later plant startups indicates that the early experience may not be inherent to the boiling water reactor design. As such, General Electric subsequently recommended that the scram requirement be eliminated. In Mode 2, the heat generation rate is low enough so that the other diverse RPS functions provide sufficient protection from an overpressurization transient. Furthermore, there will be no change in the types or significant increase in the amounts of any effluents released offsite.

For these reasons, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.**

The proposed changes revise the applicability for Functions 5 and 10 of TS 3.3.1.1. The RPS is not an initiator of any accident. Rather, the RPS is designed to initiate a reactor scram when one or more monitored parameters exceed their specified limits to preserve the integrity of the fuel cladding and the reactor coolant pressure boundary and minimize the energy that must be absorbed following an accident. The proposed changes do not alter the applicability for RPS functions during plant conditions in which an overpressurization transient is assumed to occur. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **The proposed change does not involve a significant reduction in a margin of safety.**

Margins of safety are established in the design of components, the configuration of components to meet certain performance parameters, and in the establishment of setpoints to initiate alarms and actions. The proposed changes revise the applicability for Functions 5 and 10 of TS 3.3.1.1. The proposed changes do not alter the applicability for RPS functions during plant conditions in which an overpressurization transient is assumed to occur. In addition, the proposed changes do not affect the probability of failure or availability of the affected instrumentation. Furthermore, the proposed changes will reduce the probability of test-induced plant transients and equipment failures. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Conclusion

Based on the above evaluation, Exelon Generation Company, LLC (EGC) concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of no significant hazards consideration is justified.

Attachment C

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) is requesting an amendment to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3. The proposed amendment revises the applicability of Technical Specification (TS) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed amendment also deletes Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10. No changes are being made to the required number of channels per trip system, surveillance requirements, or allowable values for any TS function.

EGC has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments." EGC has determined that the proposed changes meet the criteria for a categorical exclusion as set forth in 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," paragraph (c)(9), and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92, "Issuance of amendment," paragraph (b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," which changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20," Standards for Protection Against Radiation," or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria.

(i) The amendment involves no significant hazards consideration.

As demonstrated in Attachment B, the proposed changes do not involve a significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

The proposed amendment revises the applicability of TS 3.3.1.1, Function 5 (i.e., Main Steam Isolation Valve – Closure) and Function 10 (i.e., Turbine Condenser Vacuum – Low) to eliminate the requirement for these functions to be operable while in Mode 2 with reactor pressure ≥ 600 psig. The proposed amendment also deletes Required Action F.2 of TS 3.3.1.1 to align with the revised applicability for Functions 5 and 10. No changes are being made to the required number of channels per trip system, surveillance requirements, or allowable values for any TS function. The proposed changes do not result in an increase in power lever, do not increase the production, nor alter the flow path or method of disposal of radioactive waste or byproducts. Therefore, the proposed change will not affect the types or increase the amounts of any effluents release offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in changes in the configuration of the facility. The proposed changes only revise the applicability for Functions 5 and 10 of TS 3.3.1.1 to eliminate the requirement for these functions to be operable in Mode 2 with reactor pressure $\geq$ 600 psig. There will be no change in the level of controls used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.

Attachment D

MARKED-UP TECHNICAL SPECIFICATIONS AND BASES PAGES FOR PROPOSED CHANGES

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

REVISED TS PAGES

3.3.1.1-2
3.3.1.1-9
3.3.1.1-10

REVISED BASES PAGES
(PROVIDED FOR INFORMATION ONLY)

B 3.3.1.1-16
B 3.3.1.1-20

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more Functions with RPS trip capability not maintained.	C.1 Restore RPS trip capability.	1 hour
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 Enter the Condition referenced in Table 3.3.1.1-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	E.1 Reduce THERMAL POWER to < 38.5% RTP	4 hours
F. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	F.1 Be in MODE 2.	8 hours
	AND	
	F.2 ---------NOTE-------- Only required to be met for Function 5, Main Steam Isolation Valve-Closure, and Function 10, Turbine Condenser Vacuum-Low. ---------- Reduce reactor pressure to < 600 psig.	8 hours

(continued)

Table 3.3.1.1-1 (page 2 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Average Power Range Monitors (continued)					
c. Fixed Neutron Flux-High	1	2	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.5 SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.15 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 122% RTP
d. Inop	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.18	NA
3. Reactor Vessel Steam Dome Pressure-High (Unit 2)	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.8 SR 3.3.1.1.13 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1058 psig
Reactor Vessel Steam Dome Pressure-High (Unit 3)	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1045 psig
4. Reactor Vessel Water Level-Low	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 2.65 inches
5. Main Steam Isolation Valve-Closure	1, 2(c)	8	F	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 9.5% closed
6. Drywell Pressure-High	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1.94 psig

(continued)

(c) With reactor pressure ≥ 600 psig.

Table 3.3.1.1-1 (page 3 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
7. Scram Discharge Volume Water Level—High					
a. Thermal Switch (Unit 2) Float Switch (Unit 3)	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
	5[a]	2	H	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
b. Differential Pressure Switch	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
	5[a]	2	H	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
8. Turbine Stop Valve-Closure	≥ 38.5% RTP	4	E	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.14 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 9.5% closed
9. Turbine Control Valve Fast Closure, Trip Oil Pressure—Low	≥ 38.5% RTP	2	E	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.14 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 466 psig
10. Turbine Condenser Vacuum—Low	1, 2[a]	2	F	SR 3.3.1.1.5 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 21.4 inches Hg vacuum
11. Reactor Mode Switch—Shutdown Position	1,2	1	G	SR 3.3.1.1.16 SR 3.3.1.1.18	NA
	5[a]	1	H	SR 3.3.1.1.16 SR 3.3.1.1.18	NA
12. Manual Scram	1,2	1	G	SR 3.3.1.1.8 SR 3.3.1.1.18	NA
	5[a]	1	H	SR 3.3.1.1.8 SR 3.3.1.1.18	NA

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.

~~(c) With reactor pressure ≥ 600 psig.~~

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

5. Main Steam Isolation Valve—Closure (continued)

valid signal. This Function is only required in MODE 1 and MODE 2 with reactor pressure greater than or equal to 600 psig since, with the MSIVs open and the heat generation rate high, a pressurization transient can occur if the MSIVs close. In MODE 2 and reactor pressure less than 600 psig, the heat generation rate is low enough so that the other diverse RPS functions provide sufficient protection. This Function is automatically bypassed with the reactor mode switch in any position other than run and reactor pressure is less than 600 psig.

6. Drywell Pressure—High

High pressure in the drywell could indicate a break in the RCPB. A reactor scram is initiated to minimize the possibility of fuel damage and to reduce the amount of energy being added to the coolant and the drywell. The Drywell Pressure—High Function is assumed to scram the reactor for LOCAs inside the primary containment.

The reactor scram reduces the amount of energy required to be absorbed and, along with the actions of the ECCS, ensures that the fuel peak cladding temperature remains below the limits of 10 CFR 50.46.

High drywell pressure signals are initiated from four pressure switches that sense drywell pressure. The Allowable Value was selected to be as low as possible and indicative of a LOCA inside primary containment.

Four channels of Drywell Pressure—High Function, with two channels in each trip system arranged in a one-out-of-two logic, are required to be OPERABLE to ensure that no single instrument failure will preclude a scram from this Function on a valid signal. The Function is required in MODES 1 and 2 where considerable energy exists in the RCS, resulting in the limiting transients and accidents.

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

10. Turbine Condenser Vacuum – Low

The Turbine Condenser Vacuum – Low Function is provided to shut down the reactor and reduce the energy input to the main condenser to help prevent overpressurization of the main condenser in the event of a loss of the main condenser vacuum. The Turbine Condenser Vacuum – Low Function is the primary scram signal for the loss of condenser vacuum event analyzed in Reference 9. For this event, the reactor scram reduces the amount of energy required to be absorbed by the main condenser and helps to ensure the MCPR SL is not exceeded by reducing the core energy prior to the fast closure of the turbine stop valves. This Function helps maintain the main condenser as a heat sink during this event.

Turbine condenser vacuum pressure signals are derived from four pressure switches that sense the pressure in the condenser. The Allowable Value was selected to reduce the severity of a loss of main condenser vacuum event by anticipating the transient and scramming the reactor at a higher vacuum than the setpoints that close the turbine stop valves and bypass valves.

Four channels of Turbine Condenser Vacuum – Low Function, with two channels in each trip system arranged in a one-out-of-two logic, are required to be OPERABLE to ensure that no single instrument failure will preclude a scram from this Function on a valid signal. The Function is required in MODE 1 and MODE 2 when reactor pressure is ≥ 600 psig since, in these MODES, a significant amount of core energy can be rejected to the main condenser. During MODE 2 with reactor pressure < 600 psig, and MODES 3, 4, and 5, the core energy is significantly lower. This Function is automatically bypassed with the reactor mode switch in any position other than run and reactor pressure is < 600 psig.

11. Reactor Mode Switch – Shutdown Position

The Reactor Mode Switch – Shutdown Position Function provides signals, via the two manual scram logic channels (A3 and B3), which are redundant to the automatic protective instrumentation channels and provide manual reactor trip

(continued)

Attachment E

TYPED PAGES FOR TECHNICAL SPECIFICATIONS CHANGES

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

REVISED TS PAGES

3.3.1.1-2
3.3.1.1-9
3.3.1.1-10

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. One or more Functions with RPS trip capability not maintained.	C.1	Restore RPS trip capability.	1 hour
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1	Enter the Condition referenced in Table 3.3.1.1-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	E.1	Reduce THERMAL POWER to < 38.5% RTP	4 hours
F. As required by Required Action D.1 and referenced in Table 3.3.1.1-1.	F.1	Be in MODE 2.	8 hours

(continued)

Table 3.3.1.1-1 (page 2 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Average Power Range Monitors (continued)					
c. Fixed Neutron Flux-High	1	2	F	SR 3.3.1.1.1 SR 3.3.1.1.2 SR 3.3.1.1.5 SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.15 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 122% RTP
d. Inop	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.9 SR 3.3.1.1.11 SR 3.3.1.1.18	NA
3. Reactor Vessel Steam Dome Pressure-High (Unit 2)	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.8 SR 3.3.1.1.13 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1058 psig
Reactor Vessel Steam Dome Pressure-High (Unit 3)	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1045 psig
4. Reactor Vessel Water Level-Low	1,2	2	G	SR 3.3.1.1.1 SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.12 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 2.65 inches
5. Main Steam Isolation Valve-Closure	1	8	F	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 9.5% closed
6. Drywell Pressure-High	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.13 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 1.94 psig

(continued)

Table 3.3.1.1-1 (page 3 of 3)
Reactor Protection System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
7. Scram Discharge Volume Water Level-High					
a. Thermal Switch (Unit 2) Float Switch (Unit 3)	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
	5[a]	2	H	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
b. Differential Pressure Switch	1,2	2	G	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
	5[a]	2	H	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.17 SR 3.3.1.1.18	≤ 37.9 gallons (Unit 2) ≤ 39.1 gallons (Unit 3)
8. Turbine Stop Valve-Closure	≥ 38.5% RTP	4	E	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.14 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≤ 9.5% closed
9. Turbine Control Valve Fast Closure, Trip Oil Pressure-Low	≥ 38.5% RTP	2	E	SR 3.3.1.1.5 SR 3.3.1.1.11 SR 3.3.1.1.14 SR 3.3.1.1.17 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 466 psig
10. Turbine Condenser Vacuum-Low	1	2	F	SR 3.3.1.1.5 SR 3.3.1.1.8 SR 3.3.1.1.10 SR 3.3.1.1.18 SR 3.3.1.1.19	≥ 21.4 inches Hg vacuum
11. Reactor Mode Switch-Shutdown Position	1,2	1	G	SR 3.3.1.1.16 SR 3.3.1.1.18	NA
	5[a]	1	H	SR 3.3.1.1.16 SR 3.3.1.1.18	NA
12. Manual Scram	1,2	1	G	SR 3.3.1.1.8 SR 3.3.1.1.18	NA
	5[a]	1	H	SR 3.3.1.1.8 SR 3.3.1.1.18	NA

(a) With any control rod withdrawn from a core cell containing one or more fuel assemblies.