

Mr. Charles G. Pardee
Chief Nuclear Officer
and Senior Vice President
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

August 22, 2008

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNIT 3 - ISSUANCE OF
EMERGENCY AMENDMENT REGARDING DRYWELL FLOOR DRAIN SUMP
MONITORING SYSTEM (TAC NO. MD9467)

Dear Mr. Pardee:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 221 to Renewed Facility Operating License No. DPR-25 for Dresden Nuclear Power Station, Unit 3. The amendment is in response to your application dated August 18, 2008.

The amendment revises Technical Specification (TS) 3.4.5, "RCS Leakage Detection Instrumentation," to support implementation of an alternative method of verifying that unidentified leakage in the drywell is within limits.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Christopher Gratton, Senior Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-249

Enclosures:

1. Amendment No. 221 to DPR-25
2. Safety Evaluation

cc w/encls: See next page

Mr. Charles G. Pardee
 Chief Nuclear Officer
 and Senior Vice President
 Exelon Generation Company, LLC
 4300 Winfield Road
 Warrenville, IL 60555

August 22, 2008

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNIT 3 - ISSUANCE OF
 EMERGENCY AMENDMENT REGARDING DRYWELL FLOOR DRAIN SUMP
 MONITORING SYSTEM (TAC NO. MD9467)

Dear Mr. Pardee:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. _____ to Renewed Facility Operating License No. DPR-25 for Dresden Nuclear Power Station, Unit 3. The amendment is in response to your application dated August 18, 2008.

The amendment revises Technical Specification (TS) 3.4.5, "RCS Leakage Detection Instrumentation," to support implementation of an alternative method of verifying that unidentified leakage in the drywell is within limits.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,
 /RA/
 Christopher Gratton, Senior Project Manager
 Plant Licensing Branch III-2
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

Docket No. 50-249

Enclosures:

1. Amendment No. 221 to DPR-25
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION:

PUBLIC	RidsOgcRp	LPL3-2 R/F
RidsNrrDorlLpl3-2	RidsNrrDirsltsb	RidsAcrsAcnw&mMailCenter
RidsNrrPMDresden	GHill (4)	RidsNrrLATHarris
RidsRgn3MailCenter	RidsNrrDorlDpr	RidsNrrDssSpsb
Package: ML082321071	RidsNrrPMJWiebe	RidsNrrPMCGratton
Amendment: ML082321018		
TS Pages: ML082321018		

OFFICE	LPL3-2/PM	LPL3-2/LA	DSS/SBPB	DIRS/ITSB	OGC	LPL3-2/BC
NAME	CGratton	THarris(BClayton for)	DHarrison	RElliot	DRoth	RGibbs
DATE	08/22/08	08/22/08	08/ 21 /08	8/20/08	08/ 22 /08	08 /22/08

OFFICIAL RECORD COPY

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 221

Renewed License No. DPR-25

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated August 18, 2008, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B. of Renewed Facility Operating License No. DPR-25 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 221, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented by 12:00 p.m. CDT on August 24, 2008.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Russell Gibbs, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Renewed Facility Operating License

Date of Issuance: August 22, 2008

ATTACHMENT TO LICENSE AMENDMENT NO. 221

RENEWED FACILITY OPERATING LICENSE NO. DPR-25

DOCKET NO. 50-249

Replace the following pages of the Facility Operating License and Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

Remove

License DPR-25
Page 4

TSs

3.4.5-1
3.4.5-2

Insert

License DPR-25
Page 4

TSs

3.4.5-1
3.4.5-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED
TO AMENDMENT NO. 221 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-25
EXELON GENERATION COMPANY, LLC
DRESDEN NUCLEAR POWER STATION, UNIT 3
DOCKET NO. 50-249

1.0 INTRODUCTION

By letter to the U.S. Nuclear Regulatory Commission (NRC, the Commission) dated August 18, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082320087), Exelon Generation Company, LLC (EGC, the licensee) requested changes to the technical specifications (TSs) and surveillance requirements (SRs) for the Dresden Nuclear Power Station (DNPS), Unit 3. The proposed changes would revise TS 3.4.5, "RCS Leakage Detection Instrumentation," to support implementation of an alternative method of verifying that unidentified leakage in the drywell is within limits.

1.1 Background

The licensee stated in its application dated August 18, 2008, that on August 16, 2008, at approximately 8:00 p.m., EGC operations personnel attempted to complete TS SR 3.4.4.1, "Verify RCS Unidentified and Total Leakage and Unidentified Leakage Increase Are Within Limits." The DNPS, Unit 3, drywell floor drain sump pumps started as expected, however, pump flow was not observed. During a second attempt to operate the pumps, EGC personnel observed the position indicators for the two containment isolation valves, which indicated that the valves were in their proper position (i.e., open). Subsequent troubleshooting concluded that one of the two valves failed closed. The licensee noted in their submittal that the drywell floor drain sump pumps had been successfully pumped previously at 4:00 p.m., and every four hours prior.

Because of the failed-closed containment isolation valve in the drywell floor drain system, SR 3.4.4.1 was not completed. TS 3.4.4, "RCS Operational Leakage," and the associated limiting conditions for operation (LCO) for DNPS Unit 3, and TS 3.4.5, "RCS Leakage Detection Instrumentation," require that the unit be placed in Mode 3 within the following 12 hours and Mode 4 within 36 hours. EGC indicated that the valve repair could not be done during plant operations. This situation resulted from the unforeseen failure of the Unit 3 drywell floor drain sump monitoring system and EGC stated that they could not have reasonably submitted a request for an emergency license amendment in advance of the event. The NRC verbally granted a Notice of Enforcement Discretion (NOED) to EGC regarding DNPS Unit 3 on August 17, 2008, for TS 3.4.4, Condition C and TS 3.4.5, Condition C. Specifically, the NOED documents that the NRC staff will not take enforcement action against the licensee for being in non-compliance with TSs 3.4.4 and 3.4.5 while the NOED is in effect. The NOED provides EGC sufficient time (i.e., 7 days) to (1) reconfigure the drywell floor drain sump monitoring system

such that any unidentified drywell leakage would be monitored by the drywell equipment drain sump monitoring system, and (2) submit a change to TS 3.4.5 and its associated TS Bases to permit the monitoring of unidentified reactor coolant leakage using the drywell equipment drain sump monitoring system. During the NOED call, the licensee and the NRC staff agreed that the amendment to the TSs should be of limited duration, terminating at the next outage of sufficient duration to repair the failed containment isolation valve, or the startup from the next refueling outage, D3R20, whichever is sooner. Subsequently, on August 18, 2008, EGC submitted a license amendment request for a change to TS 3.4.5, and its associated TS Bases. The proposed amendment included provisions that the amendment be of limited duration.

2.0 REGULATORY EVALUATION

The licensee provided the following discussion of the applicable regulatory requirements in its application:

DNPS Unit 3 was originally designed and constructed prior to the issuance of the General Design Criteria (GDC). Proposed GDC were issued in July 1967, during the construction of the plant. These proposed criteria were not adopted as regulatory requirements at the time DNPS was built. The proposed GDC were used by the Atomic Energy Commission to evaluate the original design of DNPS Unit 3. This evaluation indicated that based on the applicant's understanding of the intent of the proposed GDC, DNPS fully satisfies the intent of the criteria. [Updated Final Safety Analysis Report] UFSAR Section 3.1.1 addresses DNPS's conformance to the proposed GDC that were issued in July 1967.

UFSAR Section 3.1.1.3.6 discusses Criterion 16, "Monitoring Reactor Coolant Pressure Boundary," which requires a means to be provided for monitoring the reactor coolant pressure boundary to detect leakage. The DNPS evaluation for Criterion 16 states that the necessary plant controls, instrumentation, and alarms for safe and orderly operation are located in the control room. These include such controls as the control rod position indication, the reactor core heat removal system, and the reactor coolant system leakage detection system.

Details regarding the reactor coolant system leakage detection systems are provided in Section 5.2.5, "Detection of Leakage Through Reactor Coolant Pressure Boundary," of the DNPS UFSAR. One of the leakage detection systems discussed is the drywell sumps (i.e., drywell floor drain sump and drywell equipment drain sump). The UFSAR states that various leak detection systems and capabilities collectively detect reactor coolant pressure boundary leakage, both identified and unidentified. These sensitive and diverse systems meet the acceptance criteria of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," Revision 0.

The proposed change does not involve physical changes to the reactor coolant system (RCS) leakage detection systems. Rather, the proposed change allows use of the drywell equipment drain monitoring system to perform the function of the drywell floor drain monitoring system in quantifying unidentified leakage within the DNPS Unit 3 drywell. The design function of the RCS leakage detection systems is not affected by the proposed change. In addition, the alternative

method conservatively assumes that all leakage in the drywell is unidentified leakage. Therefore, there is no impact to EGC's ability to meet the applicable regulatory requirements discussed above.

The NRC staff finds that the licensee, in Section 4.1 of its submittal, identified the applicable regulatory requirements.

The regulatory requirements for which the NRC staff based its acceptance are discussed in Sections 2.1 and 2.2 below.

2.1 Changes to Technical Specification Pages

Section 182a of the Atomic Energy Act (the Act) requires applicants for nuclear power plant operating licenses to include TS as part of the license. The TS ensure the operational capability of structures, systems and components that are required to protect the health and safety of the public. The regulatory requirements related to the content of the TS are contained in Title 10 *Code of Federal Regulations (10 CFR)*, Section 50.36. That regulation requires that the TS include items in the following specific categories: (1) safety limits, limiting safety systems settings, and limiting control settings (Section 50.36(d)(1)); (2) LCOs (Section 50.36(d)(2)); (3) SRs (Section 50.36(d)(3)); (4) design features (Section 50.34(d)(4)); and (5) administrative controls (Section 50.36(d)(5)).

A TS LCO must be established for items meeting any Criteria of 10 CFR 50.36(d)(2)(ii). Criterion 1 of 10 CFR 50.36(d)(2)(ii) is for installed instrumentation used to detect and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary. One method of detecting an abnormal degradation of the reactor coolant pressure boundary is to monitor and quantify operational RCS leakage.

DNPS Unit 3 TSs contains limits on operational RCS leakage in TS 3.4.4, "RCS Operational LEAKAGE." Requirements for leakage detection instrumentation are contained in TS 3.4.5, "RCS Leakage Detection Instrumentation." The current method of quantifying *unidentified* RCS leakage depends on the ability to pump the contents of the drywell floor drain sump through the drywell floor drain sump monitoring system. The current method of quantifying *identified* RCS leakage depends on the ability to pump the contents of the drywell equipment drain sump through the drywell equipment drain sump monitoring system. The volume of water pumped through the drywell floor drain sump monitoring system is considered unidentified leakage while the volume pumped through the drywell equipment drain sump monitoring system is considered identified leakage.

On August 17, 2008, an apparent valve failure at DNPS Unit 3 prevented pumping of the contents of the drywell floor drain sump through the drywell floor drain sump monitoring system. As a result, the licensee was unable to meet the requirements of TS LCOs 3.4.4 and 3.4.5. The licensee requested a license amendment to revise TS 3.4.5 to allow an alternate method of monitoring unidentified RCS leakage.

2.2 Equipment Configuration Changes

DNPS Unit 3 was originally designed and constructed prior to the issuance of the GDC. Proposed GDC were issued in July 1967, during the construction of the plant. These proposed

criteria were not adopted as regulatory requirements at the time DNPS was built. The proposed GDC were used by the Atomic Energy Commission to evaluate the original design of DNPS Unit 3. This evaluation indicated that DNPS fully satisfies the intent of the criteria. UFSAR Section 3.1.1 addresses DNPS's conformance to the proposed GDC that were issued in July 1967.

UFSAR Section 3.1.1.3.6 discusses Criterion 16, "Monitoring Reactor Coolant Pressure Boundary," which requires a means to be provided for monitoring the reactor coolant pressure boundary to detect leakage. The DNPS's evaluation for Criterion 16 states that the necessary plant controls, instrumentation, and alarms for safe and orderly operation are located in the control room. These include such controls as the control rod position indication, the reactor core heat removal system, and the RCS leakage detection system.

Details regarding the RCS leakage detection systems are provided in Section 5.2.5, "Detection of Leakage Through Reactor Coolant Pressure Boundary," of the DNPS UFSAR. One of the leakage detection systems discussed is the drywell sumps (i.e., drywell floor drain sump and drywell equipment drain sump). The UFSAR states that various leak detection systems and capabilities collectively detect reactor coolant pressure boundary leakage, both identified and unidentified.

The NRC staff finds that the licensee, in Section 4.1 of its submittal, identified the applicable regulatory requirements. The regulatory requirements upon which the NRC staff based its acceptance criteria (GDC 30, Standard Review Plan), Chapter 5.2.5, "Reactor Coolant Pressure Boundary Leakage Detection," and associated Regulatory Guide (RG) 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems") ensure the plant's ability to provide the operators with an early indication of reactor coolant pressure boundary (RCPB) leakage for actions that minimize the likelihood that an RCPB leak may go undetected and result in a severe loss-of-coolant-accident.

3.0 TECHNICAL EVALUATION

3.1 Drywell RCS Leakage Monitoring

The proposed change to TS 3.4.5 does not involve physical modification to the RCS leakage detection systems. Rather, the proposed change allows the use of the drywell equipment drain monitoring system as an alternative method to perform the function of the drywell floor drain monitoring system in quantifying unidentified leakage within the DNPS Unit 3 drywell. The design function of the RCS leakage detection systems is not affected by the proposed change. In addition, the alternative method conservatively assumes that all leakage in the drywell is unidentified leakage.

As indicated in the application, the RCS includes systems and components that contain or transport the coolant to or from the reactor core. The RCS boundary is defined by these systems and components containing RCS pressure and those portions of connecting systems out to and including the isolation valves. During plant life, varying amounts of RCS leakage occur at valve interfaces and system joint connections because of normal operational wear or mechanical deterioration. Limits on RCS operational leakage are required to ensure appropriate operator actions are taken to ensure RCPB integrity. The drywell floor drain sump monitoring system is used to provide indication of unidentified RCS leakage from a number of sources,

including from control rod drives, valve flanges or packing, floor drains, the reactor building closed cooling water system, and drywell air cooling unit condensate drains, and other leakage not collected in the drywell equipment drain sump. The drywell floor drain pumps take suction from the drywell floor drain sump and discharge the liquid through a containment penetration to the liquid radioactive waste management systems.

The drywell equipment drain sump monitoring system design is similar to the drywell floor drain sump monitoring system. RCS leakage is collected in the drywell equipment drain sump and is considered identified leakage and does not represent a safety consideration so long as the leakage is small compared to the available RCS makeup systems capacity. The drywell equipment drain sump monitoring system may be used collectively with the drywell floor drain sump monitoring system to determine the source of leakage in the drywell.

TS 3.4.4 specifies the leakage limits for unidentified leakage to be less than or equal to 5 gallons-per-minute (gpm), total leakage averaged over the previous 24-hour period to be less than or equal to 25 gpm, and the increase in unidentified leakage within the previous 24-hour period to be less than 2 gpm. TS 3.4.5 specifies the operational requirements of the drywell floor drain sump monitoring system to verify RCS unidentified leakage within the limits established by TS 3.4.4.

The proposed use of the drywell equipment drain sump monitoring system as an alternative method to monitor unidentified RCS leakage is accomplished by manually filling the drywell floor drain sump with water to the drywell floor level. Additional leakage collected into the drywell floor drain sump would overflow and spill over to the nearby drywell equipment drain sump. These sumps are located at the same elevation with respect to drywell floor elevation and spaced approximately 3 feet apart. The drywell floor is constructed such that no obstruction is observed between these two sumps. The amount of unidentified leakage overflow from the drywell floor drain sump would be recorded by the drywell equipment drain sump monitoring system.

By allowing the drywell floor drain sump to overflow into the drywell equipment drain sump, operators would not be able to differentiate between the identified and unidentified leakage inputs. As a result, the licensee conservatively considers all leakage in the drywell equipment drain sump to be unidentified leakage and maintains the leakage to the limits specified in TS 3.4.4.

Additionally, the RCS leakage measurement and surveillance frequency in TS 3.4.4 and TS 3.4.5 will provide appropriate trending of total RCS leakage. The NRC staff finds that the TS 3.4.4 limit of 2.0 gpm over a 24-hour period will continue to be effective in identifying any significant increase in leakage.

The NRC staff reviewed the proposed alternate method of monitoring unidentified leakage described above and concluded that it is consistent with RG 1.45, meets the intent of GDC 30, and is, therefore, acceptable.

The NRC staff also concludes that the limited duration of the amendment proposed by the licensee, terminating at the next outage of sufficient duration to repair the failed containment isolation valve, or the startup from the next refueling outage, D3R20, whichever is sooner, is acceptable.

3.2 Changes to the TSs

The licensee proposed changing the method of quantifying RCS operational leakage by filling the drywell floor drain sump and allowing all operational leakage to flow into the drywell equipment drain sump. The licensee also proposed changes to TS 3.4.5 to add a note to pages 3.4.5-1 and 3.4.5-2, that reads:

For Unit 3 only, the drywell equipment drain sump monitoring system may be used to satisfy requirements applicable to the drywell floor drain sump monitoring system until the system is repaired during a Unit 3 outage of sufficient duration, but no later than startup from D3R20.

The proposed TS note along with the new method of monitoring operational leakage would effectively make all leakage pumped through the drywell equipment drain sump monitoring system unidentified leakage.

LCO 3.4.4 contains limits on RCS operational leakage and states:

RCS operational LEAKAGE shall be limited to:

- a. No pressure boundary LEAKAGE;
- b. < 5 gpm unidentified LEAKAGE;
- c. < 25 gpm total LEAKAGE averaged over the previous 24 hour period; and
- d. < 2 gpm increase in unidentified LEAKAGE within the previous 24 hour period in MODE 1.

Using the new method of monitoring operational leakage will put the licensee closer to the unidentified leakage limits “b” and “d” because the magnitude of the unidentified leakage will be larger than if leakage were categorized as identified and unidentified, and the numerical limits of LCO 3.4.4 are not being altered. As a result, the licensee will be required to take action to reduce operational leakage sooner than they would have if they could use the current leakage monitoring method. Therefore, the proposed new method of monitoring operational leakage is more restrictive than the current method. The NRC staff finds that the proposed change meets the regulatory requirements of 10 CFR 50.36, and is, therefore, acceptable.

4.0 EMERGENCY CIRCUMSTANCES

The NRC’s regulations at 10 CFR 50.91 contain provisions for issuance of an amendment where the Commission finds that an emergency situation exists in that failure to act in a timely way would result in shutdown of a nuclear power plant. In such a situation, the NRC may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment. In such a situation, the Commission will not publish a notice of proposed determination on no significant hazards consideration, but will publish a notice of issuance under 10 CFR 2.106.

In this instance, an emergency situation exists in that the proposed amendment is needed to allow the licensee to preclude an unnecessary plant shutdown. In its August 18, 2008, application, the license stated that:

10 CFR 50.91, "Notice for public comment; State consultation," paragraph (a)(5) states that where the NRC finds that an emergency situation exists, in that failure to act in a timely way would result in the derate or shutdown of a nuclear power plant, it may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or public comment. The regulation requires that a licensee requesting an emergency amendment explain why the emergency situation occurred and why the licensee could not avoid the situation.

DNPS Unit 3 is equipped with leakage detection systems for the RCS to alert the operators when leakage rates above the normal background level are detected, and to provide a quantitative measurement of RCS leakage rates. The drywell floor drain sump monitoring system monitors the leakage collected in the floor drain sump to ensure that leakage is less than the TS limits for RCS unidentified leakage.

On August 16, 2008, at approximately 2000 hours [8:00 p.m.], EGC operations personnel attempted to pump the Unit 3 drywell floor drain sump utilizing Dresden Operating Procedure (DOP) 2000-24, "Drywell Sump Operation." Successful completion of DOP 2000-24 is used to partially satisfy TS Surveillance Requirement (SR) 3.4.4.1, "Verify RCS unidentified and total LEAKAGE and unidentified LEAKAGE increase are within limits." The pumps started as expected; however, the integrator indicated no flow. During a second attempt to operate the pumps, EGC operations personnel observed the position indicators for the two containment isolation valves, which indicated that the valves were in their proper position [i.e., open]. EGC maintenance personnel also inspected the pump breakers and measured pump motor current, with no abnormalities identified. The drywell floor drain sump pumps had been successfully pumped previously at 1600 hours [4:00 p.m.], and every four hours prior.

EGC conducted troubleshooting actions to identify possible malfunctions. These troubleshooting actions indicated that the 3-2001-105 containment isolation valve (i.e., one of two drywell floor drain sump pump discharge valves) may have failed closed. Since the drywell floor drain sump could not be pumped, EGC was not able to satisfy the acceptance criteria of SR 3.4.4.1 for DNPS Unit 3. Therefore, TS Limiting Condition for Operation (LCO) 3.4.4 for unidentified leakage could not be verified to be within limits. The applicable TS action requires that the unit be placed in Mode 3 within the following 12 hours and Mode 4 within 36 hours.

In that the 3-2001-105 valve is part of primary containment [boundary], the valve cannot be repaired during unit operation. As such, EGC requested, and the NRC granted, a Notice of Enforcement Discretion (NOED) for TS 3.4.4, Condition C and TS 3.4.5, Condition C. Specifically, the NOED provided a seven-day

extension to the TS Completion Times to place the unit in Mode 3 within 12 hours and Mode 4 within 36 hours.

This extension provides sufficient time to reconfigure the drywell floor drain sump monitoring system such that the drywell equipment drain sump monitoring system can be physically utilized to quantify unidentified drywell leakage. In addition, the seven-day extension provides sufficient time to request, and the NRC to process, this emergency license amendment to revise, on a temporary basis, TS 3.4.5 to approve the use of the drywell equipment drain sump monitoring system as an alternative method to quantify unidentified leakage.

As discussed above, this emergency situation results from the unforeseen failure of the DNPS Unit 3 drywell floor drain sump monitoring system. Under this condition, EGC could not have reasonably submitted this request for an emergency license amendment in advance of the event or in a more timely manner. In addition, as demonstrated in Section 4.2, the proposed change does not involve a significant hazards consideration.

Based on the above, the requirements for an emergency situation as stipulated in 10 CFR 50.91(a)(5) have been satisfied.

The Commission expects its licensees to apply for license amendments in a timely fashion. In this situation, the NRC staff has determined that the licensee has explained, as set forth above, why this emergency situation occurred and why it could not avoid this situation. Based on the licensee's reasons set forth above, the NRC staff has determined that the licensee could not reasonably have foreseen the failure of the drywell floor drain sump monitoring system, and thus, could not have applied for the amendment in a timely fashion. Accordingly, the NRC staff has determined that the licensee made a timely application for the amendment, has not abused the emergency provisions of 10 CFR 50.91(a)(5), and did not itself create the emergency.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations at 10 CFR 50.92(c) states that the Commission may make a final determination that a license amendment 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) result in a significant reduction in a margin of safety. The NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91. The following analysis was provided by the licensee in its August 18, 2008, letter:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

The proposed change does not involve physical changes to any plant structure, system, or component. As a result, no new failure modes of the RCS leakage detection systems are being introduced. Additionally, the RCS leakage detection systems have no impact on any initiating event frequency.

The consequences of a previously analyzed accident are dependent on the initial conditions assumed for the analysis, the behavior of the fuel during the analyzed accident, the availability and successful functioning of the equipment assumed to operate in response to the analyzed event, and the setpoints at which these actions are initiated. The RCS leakage detection systems do not perform an accident mitigating function. Emergency Core Cooling System, Reactor Protection System, and primary and secondary containment isolation actuations are not affected by the proposed change. The proposed change has no impact on any setpoints or functions related to these actuations. There are no changes in the types or significant increase in the amounts of any effluents released offsite.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed change allows use of the drywell equipment drain system as an alternative method of quantifying unidentified leakage in the drywell. The drywell equipment drain system will continue to be used for leakage collection and quantification. There is no alteration to the parameters within which the plant is normally operated or in the setpoints that initiate protective or mitigative actions. As a result, no new failure modes are being introduced.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No

The current TS require a periodic measurement of RCS leakage. The proposed change maintains the existing level of safety by allowing use of the drywell equipment drain sump system to quantify unidentified leakage in the drywell. No changes are being made to any of the RCS leakage limits specified in TS 3.4.4. The impact of the change is that measured unidentified and identified leakage within the drywell will be quantified as

equivalent values since the drywell equipment drain sump monitoring system will also be used to measure leakage into the drywell floor drain sump. In addition, the alternative method conservatively assumes that all leakage in the drywell is unidentified leakage.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, has concluded that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has determined that the proposed amendment involved no significant hazards consideration.

6.0 STATE CONSULTATION

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

7.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes a surveillance requirement. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final no significant hazards finding with respect to this amendment. Accordingly, the amendment meets 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 amendment.

8.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) involve a significant increase in the probability or consequences of an accident previously evaluated, or (b) create the possibility of a new or different kind of accident from any previously evaluated, or (c) involve a significant reduction in a margin of safety and therefore, the amendment does not involve a significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (3) such activities will be conducted in compliance with the Commission's regulations; and (4) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: Matthew Hamm, NRR
David Diec, NRR

Date: August 22, 2008

**Dresden Nuclear Power Station, Units 2
and 3**

cc:

Corporate Distribution
Exelon Generation Company, LLC
Via e-mail

Dresden Distribution
Exelon Generation Company, LLC
Via e-mail

Dresden Resident Inspector
U.S. Nuclear Regulatory Commission
Via e-mail

Chairman
Grundy County Board
Via e-mail

Illinois Emergency Management Agency
Division of Disaster Assistance &
Preparedness
Via e-mail