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

August 16, 2010

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, AND QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: AUTHORIZING ALTERNATIVE METHODS OF VERIFYING LEAKAGE WITHIN THE DRYWELL (TAC NOS. ME2148 THRU ME2151)

Dear Mr. Pacilio:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 235 to Renewed Facility Operating License No. DPR-19 and Amendment No. 228 to Renewed Facility Operating License No. DPR-25 for Dresden Nuclear Power Station, Units 2 and 3, and Amendment No. 247 to Renewed Facility Operating License No. DPR-29 and Amendment No. 242 to Renewed Facility Operating License No. DPR-30 for Quad Cities Nuclear Power Station, Units 1 and 2, respectively. The amendments are in response to your application dated August 28, 2009, as supplemented by letters dated February 5 and June 2, 2010.

The amendments revise Technical Specification 3.4.5, "RCS Leakage Detection Instrumentation," to support implementation of an alternate method of verifying that leakage in the drywell is within limits.

M. Pacilio

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,

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

Docket Nos. 50-237, 50-249, 50-254, and 50-265

Enclosures:
1. Amendment No. 235 to DPR-19
2. Amendment No. 228 to DPR-25
3. Amendment No. 247 to DPR-29
4. Amendment No. 242 to DPR-30
5. Safety Evaluation

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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 235
Renewed License No. DPR-19

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated August 28, 2009, as supplemented by letters dated February 5 and June 2, 2010, 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 2.C.(2) of Renewed Facility Operating License No. DPR-19 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 235 , are hereby incorporated into the 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 within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Carlson, 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 16, 2010

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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 228
Renewed License No. DPR-25

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated August 28, 2009, as supplemented by letters dated February 5 and June 2, 2010, 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. 228 , are hereby incorporated into the 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 within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Carlson, 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 16, 2010

ATTACHMENT TO LICENSE AMENDMENT NOS 235 AND 228

RENEWED FACILITY OPERATING LICENSE NOS. DPR-19 AND DPR-25

DOCKET NOS. 50-237 AND 50-249

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

Remove	Insert
License DPR-19 Page 3	License DPR-19 Page 3
License DPR-25 Page 4	License DPR-25 Page 4
TSs 3.4.5-1 3.4.5-2	TSs 3.4.5-1 3.4.5-2

(2) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear materials as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Updated Final Safety Analysis Report, as supplemented and amended;

(3) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2957 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Techical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 235 , are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Operation in the coastdown mode is permitted to 40% power.

f. Surveillance Requirement 4.9.A.10 - Diesel Storage Tank Cleaning (Unit 3 and Unit 2/3 only)

Each of the above Surveillance Requirements shall be successfully demonstrated prior to entering into MODE 2 on the first plant startup following the fourteenth refueling outage (D3R14).

3. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state power levels not in excess of 2957 megawatts (thermal), except that the licensee shall not operate the facility at power levels in excess of five (5) megawatts (thermal), until satisfactory completion of modifications and final testing of the station output transformer, the auto-depressurization interlock, and the feedwater system, as described in the licensee's telegrams; dated February 26, 1971, have been verified in writing by the Commission.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 228, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

E. Restrictions

Operation in the coastdown mode is permitted to 40% power.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.5 RCS Leakage Detection Instrumentation

LCO 3.4.5 The following RCS leakage detection instrumentation shall be OPERABLE:

a. Drywell sump monitoring system; and

b. Primary containment atmospheric particulate sampling system.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Drywell sump monitoring system inoperable.	A.1 Restore drywell sump monitoring system to OPERABLE status.	24 hours
B. Primary containment atmospheric particulate sampling system inoperable.	B.1 Restore primary containment atmospheric particulate sampling system to OPERABLE status.	24 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.5.1	Perform primary containment atmospheric particulate sampling.	12 hours
SR 3.4.5.2	Perform a CHANNEL FUNCTIONAL TEST of drywell sump monitoring system instrumentation.	31 days
SR 3.4.5.3	Perform a CHANNEL CALIBRATION of drywell sump monitoring system instrumentation.	12 months

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

EXELON GENERATION COMPANY, LLC

AND

MIDAMERICAN ENERGY COMPANY

DOCKET NO. 50-254

QUAD CITIES NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 247
Renewed License No. DPR-29

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC, et al. (the licensee) dated August 28, 2009, as supplemented by letters dated February 5 and June 2, 2010, 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-29 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 247 are hereby incorporated into the 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 within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert D. Carlson, 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 16, 2010

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

EXELON GENERATION COMPANY, LLC

AND

MIDAMERICAN ENERGY COMPANY

DOCKET NO. 50-265

QUAD CITIES NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 242
Renewed License No. DPR-30

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC, et al. (the licensee) dated August 28, 2009, as supplemented by letters dated February 5 and June 2, 2010, 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.

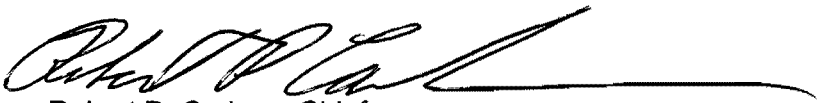
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Renewed Facility Operating License No. DPR-30 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 242 , are hereby incorporated into the 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 within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert D. Carlson, 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 16, 2010

ATTACHMENT TO LICENSE AMENDMENT NOS. 247 AND 242

RENEWED FACILITY OPERATING LICENSES NOS. DPR-29 AND DPR-30

DOCKET NOS. 50-254 AND 50-265

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

Remove	Insert
License DPR-29 Page 4	License DPR-29 Page 4
License DPR-30 Page 4	License DPR-30 Page 4
TSs 3.4.5-1	TSs 3.4.5-1

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 247 , are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. The licensee shall maintain the commitments made in response to the March 14, 1983, NUREG-0737 Order, subject to the following provision:

The licensee may make changes to commitments made in response to the March 14, 1983, NUREG-0737 Oder without prior approval of the Commission as long as the change would be permitted without NRC approval, pursuant to the requirements of 10 CFR 50.59. Consistent with this regulation, if the change results in an Unreviewed Safety Question, a license amendment shall be submitted to the NRC staff for review and approval prior to implementation of the change.

D. Equalizer Valve Restriction

Three of the four valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operation with one bypass valve open to allow for thermal expansion of water.

E. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined sets of plans[1], which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Quad Cities Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 2," submitted by letter dated May 17, 2006.

F. The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Reports dated July 27, 1979 with supplements dated November 5, 1980, and

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 242, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. The license shall maintain the commitments made in response to the March 14, 1983, NUREG-0737 Order, subject to the following provision:

> The licensee may make changes to commitments made in response to the March 14, 1983, NUREG-0737 Order without prior approval of the Commission as long as the change would be permitted without NRC approval, pursuant to the requirements of 10 CFR 50.59. Consistent with this regulation, if the change results in an Unreviewed Safety Question, a license amendment shall be submitted to the NRC staff for review and approval prior to implementation of the change.

D. Equalizer Valve Restriction

Three of the four valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operation with one bypass valve open to allow for thermal expansion of water.

E. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1], which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Quad Cities Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 2," submitted by letter dated May 17, 2006.

F. The licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility and as approved in the Safety Evaluation Reports dated July 27, 1979 with supplements dated

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.5 RCS Leakage Detection Instrumentation

LCO 3.4.5 The following RCS leakage detection instrumentation shall be OPERABLE:

a. Drywell sump monitoring system; and

b. Primary containment atmospheric particulate monitoring system.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Drywell sump monitoring system inoperable.	A.1 Restore drywell sump monitoring system to OPERABLE status.	30 days

(continued)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 235 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-19, AMENDMENT NO. 228 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-25, AMENDMENT NO. 247 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-29 AND AMENDMENT NO. 242 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-30

EXELON GENERATION COMPANY, LLC

AND

MIDAMERICAN ENERGY COMPANY

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, AND

QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

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

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, the Commission) dated August 28, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092400548), as supplemented by letters dated February 5 (ADAMS Accession No. ML100430330) and June 2, 2010 (ADAMS Accession No. ML101540106), Exelon Generation Company, LLC (the licensee) requested changes to the technical specifications (TSs), facility operating licenses, and surveillance requirements (SRs) for Dresden Nuclear Power Station (DNPS), Units 2 and 3, and Quad Cities Nuclear Power Station (QCNPS), Units 1 and 2. The proposed changes would revise TS 3.4.5, "RCS Leakage Detection Instrumentation," at each unit to support implementation of an alternate method of verifying that leakage in the drywell is within limits.

The February 5 and June 2, 2010, supplements contained clarifying information and did not change the NRC staff's initial proposed finding of no significant hazards consideration.

2.0 REGULATORY EVALUATION

The proposed amendment supports an alternate method to quantify reactor coolant system (RCS) leakage in the primary containments at DNPS, Units 2 and 3, and QCNPS, Units 1 and 2. This alternate method would only be used when the drywell floor drain sump (DWFDS) was unavailable, and would quantify leakage by overflowing the DWFDS into the drywell equipment

drain sump (DWEDS). All leakage collected in this method would be treated as unidentified leakage.

In Section 5.2.5, "Detection of Leakage Through Reactor Coolant Pressure Boundary," of the DNPS and QCNPS Updated Final Safety Analysis Reports (UFSARs), the licensee describes the RCS leakage detection capabilities available at both sites. Identified leakage, such as controlled leakage from seals and valve packing, is routed to the DWEDS at DNPS and QCNPS. All unidentified leakage is collected in the DWFDS. The sumps are periodically pumped and flow integrators calculate the total volume. Dividing the total volume by the period of time between pumping provides an effective leakage rate. Alarms are provided on the DWFDS and DWEDS, and a sudden increase in RCS leakage will result in a high sump level alarm in the control room.

As described in the UFSARs, the leakage detection systems at DNPS and QCNPS meet the intent of Criterion 16 of the draft General Guidance Criteria (GDC) and Regulatory Guide (RG) 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," Revision 0.

Maximum allowable rates for identified and unidentified leakage are enforced by TS 3.4.4, "RCS Operational Leakage," which requires ≤ 5 gallons per minute (gpm) unidentified leakage, and ≤ 25 gpm total leakage. TS 3.4.5, "RCS Leakage Detection Instrumentation," contains the requirements for leakage detection instrumentation that must be operable and associated actions for when the equipment becomes inoperable. These instruments are used to verify operational leakage is within the operational limits set in TS 3.4.4.

Amendment No. 221 to the renewed operating license of DNPS, Unit 3 approved an equivalent change to TS 3.4.5 in response to an emergency TS amendment request. The amendment added a note stating, "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." In the proposed amendment, the licensee states that DNPS, Unit 3 collected RCS leakage in the alternate method from June 2008, to November 2008, with satisfactory results.

3.0 TECHNICAL EVALUATION

3.1 Alternate Method for Quantifying RCS Leakage

In its license amendment request, the licensee has proposed an alternate method of satisfying the requirements for leakage detection instrumentation in TS 3.4.5 and DNPS and QCNPS. In the event that the DWFDS monitoring system becomes inoperable, the alternate method allows the DWEDS to be credited for performing the leakage detection and quantification function of the DWFDS. This would be accomplished by filling the DWFDS and allowing it to overflow to the DWEDS where similar monitoring instruments would quantify the total RCS leakage.

The DWEDS and DWFDS are located at the same elevation, approximately 3 feet apart, at both DNPS and QCNPS. As described in the amendment request, there are no obstructions or other paths to divert the overflow from the DWFDS and all overflowing leakage should end up in the DWEDS. The licensee included Regulatory Commitments CM-1, CM-2, and CM-3 in its application that it will verify that the DWFDS overflows into the DWEDS prior to implementing this method for quantifying leakage. The commitments are summarized in Section 3.2 of this

safety evaluation. In the supplement dated June 2, 2010, the licensee stated that the design of the DWFDS and DWEDS are similar, including instrumentation and alarms. Level alarms and instrumentation are maintained using the same procedures and consist of the same components. Therefore, there will be no significant increase in operator response time when overflowing the DWFDS to the DWEDS at DNPS and QCNPS.

As described in the DNPS and QCNPS UFSARs, the DWFDS quantifies unidentified leakage and DWEDS quantifies identified leakage. As stated in TS 3.4.4, the two types of leakage have different operational limits that must be verified every 12 hour period (≤ 5 gpm for unidentified leakage; ≤ 25 gpm for identified leakage, averaged over a 24 hour period). When the DWFDS is allowed to overflow into the DWEDS, as proposed in this amendment, the two types of leakages cannot be distinguished from each other for the purpose of ensuring limits in TS 3.4.4 are being maintained. In this case, the proposed amendment would treat the full volume of leakage pumped from the DWEDS as unidentified leakage. Treating all leakage pumped from the DWEDS as unidentified leakage represents an effective limit of 5 gpm total leakage versus the current limit on total leakage of ≤ 25 gpm.

The NRC staff reviewed the proposed alternate method for quantifying unidentified leakage, along with information contained in the UFSAR, Amendment No. 221, the current TSs, and TS Bases. The components and capabilities of the DWEDS monitoring system are equivalent to those of the DWFDS monitoring system, thus providing continued compliance with the intent of draft GDC 16 and RG 1.45. In the proposed alternate configuration, the ability to identify the source and location of RCS leakage is impaired by collecting unidentified and identified leakage in one sump. In response, all leakage pumped from the DWEDS will be treated as unidentified leakage, conservatively reducing the operational leakage limit.

In an NRC staff request for additional information (RAI), the licensee was asked to describe the transition from the normal method for unidentified leakage detection to the alternate method. The licensee's response to the RAI stated, "In order to implement the proposed alternate sump monitoring method, EGC would either manually fill the DWFDS with an external water source or allow unidentified RCS leakage to fill the DWFDS." In order to allow unidentified RCS leakage to fill the DWFDS the following conditions would be required; first, the most recent unidentified leakage rate must be high enough to overflow the DWFDS in time to satisfy the next required performance of SR 3.4.4.1, and second, the regulatory commitments described in the amendment request must have been satisfied.

In order to credit the DWEDS monitoring system for unidentified RCS leakage detection, the DWFDS must be overflowing, as described in the revised TS Bases for DNPS and QCNPS. Manually filling the DWFDS is preferable because it allows prompt verification that the DWFDS was overflowing to the DWEDS.

If RCS leakage is allowed to fill the DWFDS, there must be sufficient unidentified leakage (as calculated by the most recent performance of SR 3.4.4.1) to fill the DWFDS and meet SR 3.4.4.1 within the TS-required surveillance interval. As described in the RAI response, DWFDS level alarms must be functional in order to provide indication of sudden increases in unidentified leakage and identify when the sump has been filled. Therefore, this method would not result in an extension of the time required to identify a sudden increase in leakage, but would increase the amount of time before leakage could be actively quantified.

The NRC staff reviewed the licensee's RAI response to ensure that the described actions are acceptable within the current licensing basis. Either method for filling the DWFDS would allow the licensee to satisfy the requirements of DNPS or QCNPS TS 3.4.4, TS 3.4.5, and the intent of draft GDC 16 and RG 1.45.

As a result of its review, the NRC staff finds that the proposed alternate method of monitoring unidentified RCS leakage, used when the drywell floor drain sump monitoring system is inoperable, is acceptable.

3.2 Summary of Licensee Regulatory Commitments

Commitment Number	Commitment	Commitment Date	Event	
			One-Time Action (Yes/No)	Programmatic (Yes/No)
CM-1	EGC will verify that the drywell floor drain sump overflows into the drywell equipment drain sump at DNPS Unit 2.	Prior to initial use of the alternate sump monitoring method for DNPS Unit 2.	Yes	No
CM-2	EGC will verify that the drywell floor drain sump overflows into the drywell equipment drain sump at QCNPS Unit 1.	Prior to initial use of the alternate sump monitoring method for QCNPS Unit 1.	Yes	No
CM-3	EGC will verify that the drywell floor drain sump overflows into the drywell equipment drain sump at QCNPS Unit 2.	Prior to initial use of the alternate sump monitoring method for QCNPS Unit 2.	Yes	No

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change the requirements with respect to the installation or use of a facility's components located within the restricted area as defined in 10 CFR Part 20 [or changes a surveillance requirement]. The NRC staff has determined that the amendments involve 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 previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (74FR56886; November 3, 2009). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to

10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

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

Principal Contributor: E. Davidson, NRR

Date: August 16, 2010

M. Pacilio

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 Nos. 50-237, 50-249, 50-254, and 50-265

Enclosures:
1. Amendment No. 235 to DPR-19
2. Amendment No. 228 to DPR-25
3. Amendment No. 247 to DPR-29
4. Amendment No. 242 to DPR-30
5. Safety Evaluation

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Amendment: ML101880616 NRR-058 *SE Input Dated

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