



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

December 22, 2014

Mr. Michael J. Pacilio
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BYRON STATION, UNIT NOS. 1 AND 2 - EXEMPTION FROM THE
REQUIREMENTS OF 10 CFR PART 50, APPENDIX E, SECTION IV.F.2.C
(TAC NOS. MF3203 AND MF3204)

Dear Mr. Pacilio:

The U.S. Nuclear Regulatory Commission has approved the enclosed exemption from specific requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix E, Section IV.F.2.c, for the Byron Station, Unit Nos. 1 and 2. This action is in response to your application dated December 10, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13345B157), as supplemented by letter dated June 13, 2014 (ADAMS Accession No. ML14164A328), that requested postponement of the evaluation of certain offsite elements of Byron Station's biennial emergency preparedness exercise due to the unavailable State of Illinois resources following a series of tornadoes, which occurred on November 17, 2013, and subsequent recovery efforts.

A copy of the exemption is enclosed. The exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink that reads "Joel S. Wiebe".

Joel S. Wiebe, Senior Project Manager,
Plant Licensing III-2 and
Planning and Analysis Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454 and STN 50-455

Enclosure: Exemption

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NUCLEAR REGULATORY COMMISSION

Docket Nos. STN 50-454 and STN 50-455; NRC-20YY-XXXX]

License Exemption Request for Exelon Generation Company, LLC

AGENCY: Nuclear Regulatory Commission

ACTION: Exemption; issuance

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC or Commission) is issuing a scheduling exemption in response to a December 10, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13345B157), request from Exelon Generation Company, LLC (EGC or the licensee) for a one-time exemption from the requirement to exercise its offsite emergency plan biennially with full participation by each of full participation offsite authority having a role under the radiological response plan. The request was supplemented by letter dated June 13, 2014 (ADAMS Accession No. ML14164A328). A series of deadly tornadoes struck Illinois three days prior to the scheduled exercise at the Byron Station. Because of the major involvement of the State of Illinois resources in response to the tornadoes, the Illinois Emergency Management Agency (IEMA), with the agreement of the U.S. Federal Emergency Management Agency (FEMA), decided to postpone participation in the Byron Station exercise from 2013 to early 2014, which is outside of the NRC's biennial requirement.

ADDRESSES: Please refer to Docket ID NRC-20XX-XXXX when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this document using any of the following methods:

- *Federal Rulemaking Web site:* Go to <http://www.regulations.gov> and search for Docket ID NRC-20XX-XXXX. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; email: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.
- **NRC's ADAMS:** You may access publicly-available documents online in the NRC Library at <http://nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced (if that document is available in ADAMS) is provided the first time that a document is referenced.
- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Joel S. Wiebe, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation, telephone: 301-415-6606, email: joel.wiebe@nrc.gov, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001.

SUPPLEMENTARY INFORMATION: The following sections include the text of the exemption in its entirety as issued to EGC.

I. Background

The licensee is the holder of Facility Operating License Nos., NPF-37 and NPF-66, issued under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, and which authorize operation of the Byron Station, Unit Nos. 1 and 2. The license provides, among other things, that the facility is subject to all rules, regulations, and Orders of the NRC now or hereafter in effect. The facility consists of two pressurized-water reactors located in Ogle County, Illinois.

II. Request/Action

Per 10 CFR 50.12, "specific exemptions," the Commission may grant exemptions from the requirements of 10 CFR Part 50 which: (1) are authorized by law, (2) will not present an undue risk to the public health and safety, and (3) are consistent with the common defense and security. The Commission will not consider granting an exemption unless special circumstances as described in 10 CFR 50.12(a)(2) are present. Special circumstances are present whenever, among other things, application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or the exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation.

Part 50, Appendix E, Section IV.F.2.c of 10 CFR requires that "[o]ffsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan." Full participation when used in conjunction with emergency preparedness (EP) exercises for a particular site means appropriate offsite local and State authorities and licensee personnel physically and actively take part in testing their integrated capability to adequately assess and respond to an accident at a commercial nuclear power plant. Full participation includes testing major observable portions of the onsite and offsite emergency

plans and mobilization of State, local, and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario.

The Byron Station biennial exercise with full participation was scheduled for November 20, 2013. On November 17, 2013, three days before the exercise, a series of tornadoes struck Illinois and caused significant widespread damage throughout the state resulting in a Presidential Disaster Declaration for 15 Illinois counties. On November 18, 2013, due to the magnitude of the State and local disaster response, and its impact on resources, IEMA verbally notified FEMA that they would request postponement of participation in the Byron Station Radiological Emergency Preparedness biennial exercise.

The onsite portion and some aspects of the offsite portions of the exercise were conducted by the licensee and inspected by the NRC on November 20, 2013. Since the State was not able to participate in the exercise, Ogle and Winnebago Counties did not perform their required interface functions. Therefore, the counties did not fully participate in the exercise.

In a letter to FEMA dated December 2, 2013 (Attachment 2; ADAMS Accession No. ML13345B157), IEMA requested that FEMA postpone the exercise until calendar year (CY) 2014, citing the magnitude of the State's disaster response to the series of deadly tornadoes. By letter dated December 7, 2013 (Attachment 3; ADAMS Accession No. ML13345B157), FEMA agreed to the IEMA request to postpone the offsite portions of the biennial exercise until CY 2014.

The licensee requested on December 10, 2013 (ADAMS Accession No. ML13345B157), pursuant to 10 CFR 50.12, approval of a one-time exemption from 10 CFR Part 50, Appendix E, Section IV.F.2.c. The requested exemption would allow the licensee to delay conduct of certain offsite portions of a biennial EP exercise from November 23, 2013, to February 2014.

The licensee stated in their request that the IEMA and the Ogle and Winnebago Counties have indicated that it was not feasible to reschedule the specific offsite functions that remain to be exercised prior to the end of CY 2013.

The postponed aspects at the offsite portions of the exercise were conducted by the licensee on February 6, 2014, and were evaluated by FEMA.

III. Discussion

A. Authorized by Law

Pursuant to 10 CFR 50.12(a), the Commission may grant exemptions which are, among other things, authorized by law. It may be inferred that an exemption is authorized by law if all of the conditions for granting the exemption are met (i.e., will not present an undue risk to the public health and safety, consistent with the common defense and security, special circumstances are present). These factors are discussed below in Sections B, C, and D.

In addition, the NRC staff must determine whether the exemption would violate the Atomic Energy Act, National Environmental Policy Act, or other law. In this case, the exemption removes for purposes of the 2013 exercise the requirement in 10 CFR Part 50, Appendix E, Section IV.F.2.c, to conduct the exercise biennially. The frequency is not specified by any law and the NRC staff has not identified any legal prohibition to the exemption. The change from annual to biennial exercise frequency was a result of rulemaking in 1984 (Final Rule, Emergency Planning and Preparedness (49 FR 27733 - 35; July 6, 1984)), when after considering: (1) experience with 150 exercises; (2) the fact that State and local governments exercise their emergency response capabilities frequently by responding to a variety of actual emergencies on a continuing basis; (3) the flexibility provided in a biennial frequency; and (4) FEMA's experiences showing the level of preparedness of State and local governments. Accordingly, the NRC staff

has determined that granting of the licensee's proposed scheduling exemption is authorized by law.

B. *No Undue Risk to Public Health and Safety*

Pursuant to 10 CFR 50.12(a), the Commission may grant exemptions which, among other things, will not present an undue risk to public health and safety. In other words, granting the exemption does not make it more likely that an accident could adversely affect the health and safety of the public. In 1984 (Final Rule, Emergency Planning and Preparedness (49 FR 27733 - 35; July 6, 1984)), when the Commission changed the exercise frequency from annual to biennial, the Commission considered whether increasing the time between exercises would result in making personnel and equipment less effective or reliable and therefore reduce the level of safety. The Commission concluded that "Because emergency response personnel at the State and local government level continuously respond to actual emergencies, the Commission does not consider that relaxing the frequency of State and local government participation in emergency preparedness exercises would adversely affect the health and safety of the public." Since the last biennial EP exercise on July 27, 2011, the licensee has conducted 47 onsite training drills/exercises/demonstrations and 34 offsite training sessions that have involved interface with State and/or local authorities. These drills and training sessions did not exercise all of the proposed rescheduled offsite functions, but they do support the licensee's assertion that it has a continuing level of engagement with the State and local authorities to maintain interfaces. The NRC staff considers the intent of this requirement is met by having conducted these series of drills and training sessions. Additionally, since the July 27, 2011, Byron Station exercise, the IEMA has satisfactorily participated in three full participation FEMA evaluated exercises at other Illinois EGC plants in Illinois. By letter dated June 13, 2014, the licensee stated that the proposed exemption is not a reduction in effectiveness of the Byron Station emergency plan.

Based on the above information showing the extent of the State and local authority participation in training and level of coordination with the licensee, the NRC Staff concludes that the one-time exemption to delay portions of the biennial EP exercise at the Byron Station poses no undue risk to public health and safety.

C. Consistent with the Common Defense and Security

The requested exemption would allow rescheduling of the specific offsite portions of the biennial EP exercise from the previously scheduled date of November 20, 2013, until February 2014. Even with the exemption granted, the Byron Station will continue to be required to meet the substantial terms and conditions in the licenses. The exemption merely allows for a delay of some portions of an emergency response exercise, with no direct impact on regulations and requirements associated with common defense and security. Therefore, the granting of the exemption is consistent with the common defense and security.

D. Special Circumstances.

The Commission will not consider granting an exemption unless special circumstances are present. Special circumstances, per 10 CFR 50.12(a)(2)(ii), are present when "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule." Section IV.F.2.c of 10 CFR Part 50, Appendix E, requires licensees to exercise offsite plans biennially with full or partial participation by each offsite authority having a role under the plan. The underlying purpose of 10 CFR 50, Appendix E, Section IV.F.2.c, requiring licensees to exercise offsite plans with offsite authority participation, is to test and maintain interfaces among affected State and local authorities, and the licensee. The circumstances at Byron Station show that maintaining the requirement to perform the biennial test during 2013 is not necessary to achieve the underlying purpose of the rule

because, as described below, the offsite responders' capabilities and interface with the licensee have been tested.

Although no NRC findings were identified at the previous biennial EP exercise conducted on July 27, 2011, FEMA did identify two Areas Requiring Corrective Actions (ARCAs). The State of Illinois received an ARCA under Evaluation Area 2, "Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency" from FEMA. This ARCA was demonstrated successfully and closed by FEMA for the State of Illinois during the Clinton Power Station exercise on November 2, 2011. In addition, Ogle County received an ARCA under Evaluation Area 3, "Implementation of Protective Actions for Special Populations, School Evacuation." Training was conducted with the Ogle County Regional Office of Education, EGC, and the State of Illinois to resolve this issue. This ARCA was expected to be resolved during the November 20, 2013. As previously discussed, the licensee has conducted 47 onsite training drills/exercises/demonstrations and 34 offsite training sessions that have involved interface with State and/or local authorities in 2011 through 2013. The NRC staff considers that these measures are adequate to test and maintain interfaces with affected State and local authorities during this period, satisfying the underlying purpose of the rule. Thus, the special circumstances required by 10 CFR 50.12(a)(2)(ii) are present in that application of the biennial test requirement during 2013 is not necessary to achieve the purpose of the rule.

There is an additional special circumstance present under 10 CFR 50.12(a)(2)(v). Specifically, the exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation, but the scheduled exercise was interrupted by tornadoes. The requested exemption to conduct the specific offsite portions of the biennial EP exercise in early 2014, instead of 2013, would grant only temporary relief from the applicable regulation until the end of February 2014. The 47 onsite training drills/exercises/demonstrations involving interface with State and local authorities

conducted in 2011, 2012, and 2013, demonstrate the licensee's good faith efforts to comply with the regulation. In addition, the licensee's inability to meet the Appendix E requirement was due to circumstances beyond its control (i.e., the impact of widespread tornado disaster response on State resources and the State's need to postpone its participation until CY 2014). The licensee scheduled the exercise and arranged for the necessary participants before the storms hit. Therefore, the licensee has made a good faith effort to comply with the regulation. Thus, the special circumstances required by 10 CFR 50.12(a)(2)(v) are also present.

Based on the above, the special circumstances required by 10 CFR 50.12(a)(2)(ii) and (v), exist to grant the requested exemption.

IV. Environmental Considerations

The Commission has found that issuing an exemption to the requirements of a regulation does not individually or cumulatively have a significant effect on the human environment provided that 10 CFR 51.22(c)(25) is met in that: (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; (v) there is no significant increase in the potential for or consequences from radiological accidents; and (vi) the requirements from which an exemption is sought involve, among other things, scheduling requirements.

An exemption involves no significant hazards consideration under 10 CFR 50.92(c) if operation of the facility in accordance with the proposed exemption 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.

The proposed exemption to postpone the Byron Station EP exercise from November 23, 2013, to February 2014, does not increase the probability of an accident because EP exercises are not initiators of any design-basis event. Additionally, the proposed exemption does not involve any physical changes to plant systems, structures, or components (SSCs), or the manner in which these SSCs are maintained or controlled. Therefore, the proposed exemption does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed exemption does not alter the physical design, safety limits, or safety analysis assumptions associated with the operation of Byron Station. Accordingly, the proposed exemption does not introduce any new accident initiators, nor does it reduce or adversely affect the capabilities of any plant structure or system in the performance of their safety function. Therefore, the proposed exemption does not create the possibility of a new or different kind of accident from any previously evaluated. The proposed exemption does not impact the assumptions of any design basis accident, and does not alter assumptions relative to the mitigation of an accident or transient event. Therefore, the proposed exemption does not involve a significant reduction in a margin of safety. Accordingly, The NRC staff has determined that the three standards of 10 CFR 50.92(c) are satisfied, and the exemption request involves no significant hazards consideration, and 10 CFR 51.22(c)(25)(i) is satisfied.

In reviewing the other factors in 10 CFR 51.22(c)(25), the NRC staff determined that the proposed exemption changes the EP exercise from November 23, 2013, to February 2014, involves no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; increase in individual or cumulative occupational radiation exposure; construction impact; and increase in the potential for or consequences from radiological accidents. Therefore, 10 CFR 51.22(c)(25)(ii)-(v) are satisfied.

The NRC staff has further determined that the requirements from which the exemption is sought involve the factors associated with 10 CFR 51.22(c)(25)(vi)(G) scheduling requirements.

Specifically, the proposed exemption changes the EP exercise from November 23, 2013, to February 2014. Therefore, the criteria specified in 10 CFR 51.22(c)(25)(vi)(G) is satisfied. Accordingly, the exemption meets the eligibility criteria for exclusion set forth in 10 CFR 51.22(c)(25). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required to be prepared with the issuance of the exemption.

V. Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, the special circumstances required by 10 CFR 50.12(a)(ii) and (v), are present. Therefore, pursuant to 10 CFR 50.12(a)(ii) and (v), the Commission hereby grants EGC a one-time exemption from the requirements of 10 CFR Part 50, Appendix E, Section IV.F.2.c., to conduct the specific offsite portion of the Byron Station biennial EP exercise required for 2013. The one-time exemption permits the specific offsite portion of the exercise to be conducted in coordination with FEMA, NRC Region III, and Byron Station as scheduled in February 2014. As noted above, the postponed aspects at the offsite portions of the exercise were conducted by the licensee on February 6, 2014.

Dated at Rockville, Maryland, this 22nd day of December 2014.

FOR THE NUCLEAR REGULATORY COMMISSION



Michele G. Evans, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

December 22, 2014

Mr. Michael J. Pacilio
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BYRON STATION, UNIT NOS. 1 AND 2 - EXEMPTION FROM THE
REQUIREMENTS OF 10 CFR PART 50, APPENDIX E, SECTION IV.F.2.C
(TAC NOS. MF3203 AND MF3204)

Dear Mr. Pacilio:

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A copy of the exemption is enclosed. The exemption has been forwarded to the Office of the Federal Register for publication.

Sincerely,
/RA/
Joel S. Wiebe, Senior Project Manager,
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Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454 and STN 50-455

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ADAMS Accession Nos. LTR ML14003A274 Exemption ML14003A275

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