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

March 30, 2015

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF  
AMENDMENT REGARDING REACTOR BUILDING VITAL AREA ACCESS  
CONTROL (TAC NO. MF3295)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 285 to Renewed Facility Operating License No. DPR-16 for Oyster Creek Nuclear Generating Station (OCNGS), in response to your application dated December 19, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13358A245), as supplemented by letters dated January 31, 2014, and November 3, 2014 (ADAMS Accession Nos. ML14035A264 and ML14309A615, respectively).

The amendment approves the proposed Security Plan changes to implement an "alternative measure" for satisfying applicable requirements of Title 10 of the *Code of Federal Regulations*, Section 73.55 related to controlling vital area access for certain portions of the Reactor Building at OCNGS.

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

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Lamb".

John G. Lamb, Senior Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosures:

1. Amendment No. 285 to DPR-16
2. Non-Security-Related Safety Evaluation
3. Security-Related Safety Evaluation

cc w/encls 1 & 2: Distribution via Listserv

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-219

OYSTER CREEK NUCLEAR GENERATING STATION

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 285  
Renewed License No. DPR-16

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (the licensee), dated December 19, 2013, as supplemented by letters dated January 31, 2014, and November 3, 2014, 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.

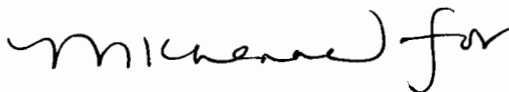
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Renewed Facility Operating License No. DPR-16 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 285, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance, and shall be implemented within 60 days of issuance. In addition, the licensee shall include the revised information in the next "Physical Security Plan" update, as described in the licensee's application dated December 19, 2013, as supplemented by letters dated January 31, 2014, and November 3, 2014, and evaluated in the NRC staff's evaluation enclosed with this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



Douglas A. Broaddus, Chief  
Plant Licensing Branch I-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: March 30, 2015

ATTACHMENT TO LICENSE AMENDMENT NO. 285  
RENEWED FACILITY OPERATING LICENSE NO. DPR-16  
DOCKET NO. 50-219

Replace the following page of the Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove

Page 3

Insert

Page 3

- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, or 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) 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 materials without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate such byproduct, source, or special nuclear materials as may be produced by the operation of the facility.

C. This 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 and 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

Exelon Generation Company is authorized to operate the facility at steady-state power levels not in excess of 1930 megawatts (thermal) (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 285, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

Exelon Generation Company 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 Report dated March 3, 1978, and supplements thereto, subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

**ENCLOSURE 2**

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 285

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-16

REGARDING CONTROLLING VITAL AREA ACCESS TO

CERTAIN PORTIONS OF THE BUILDING

EXELON GENERATION COMPANY, LLC

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

Security-related information pursuant to Section 2.390 of Title 10 of the *Code of Federal Regulations* has been redacted from this document. Redacted information is identified by blank space enclosed within double brackets.

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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 285

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-16

REGARDING CONTROLLING VITAL AREA ACCESS TO

CERTAIN PORTIONS OF THE BUILDING

EXELON GENERATION COMPANY, LLC

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

Exelon Generation Company, LLC (Exelon, or the licensee) holds a renewed license to operate Oyster Creek Nuclear Generating Station (OCNGS), which is located in Forked River, New Jersey. Pursuant to Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), Exelon submitted a license amendment request (LAR) for OCNGS by letter dated December 19, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13358A245), as supplemented by letters dated January 31, 2014, and November 3, 2014 (ADAMS Accession Nos. ML14035A264 and ML14309A615, respectively). The LAR seeks U.S. Nuclear Regulatory Commission (NRC) review and approval of the use of alternative measures under 10 CFR 73.55(r), to the requirements of 10 CFR 73.55(e)(9)(i) through (iii) relating to control of access to vital areas at OCNGS.

The enclosures to the application and supplement dated November 3, 2014, contained Safeguards Information, which is protected under 10 CFR 73.21 and is withheld from public access pursuant to the requirements of 10 CFR 9.17.

2.0 BACKGROUND

By letter dated January 7, 2011 (ADAMS Accession No. ML110070507), Exelon notified the NRC of its intention to permanently cease operations at OCNGS no later than December 31, 2019, based on its execution of an Administrative Consent Order (ACO) with the New Jersey Department of Environmental Protection (NJDEP), dated December 9, 2010. In consideration of the signed ACO, NJDEP agreed to issue a New Jersey Pollution Discharge Elimination System Surface Water Permit that allows Exelon to operate OCNGS until December 31, 2019, with its existing once-through cooling system, rather than requiring Exelon to construct a new closed-cycle cooling system. Pursuant to 10 CFR 50.82(a)(1)(i), the letter dated January 7, 2011, to the NRC, certified

Exelon's intent to permanently cease operations at OCNGS. In terms of the requirements of 10 CFR 50.4(b)(8), OCNGS shall terminate operations no later than December 31, 2019.

To gain access to OCNGS, individuals are required to undergo a thorough background screening process, conform to the requirements of the Fitness-for-Duty for drug and alcohol, and are subject to a comprehensive behavior observation program for trust-worthiness and reliability. Access to the OCNGS protected area requires individuals to be searched in order to detect, deter, and prevent introduction of firearms, explosives, incendiary devices, or other items which could be used to commit a radiological sabotage.

To gain access to the Reactor Building, the individual must complete nuclear radiation worker training and obtain an electronic self-reading dosimeter (ESRD) as part of plant work authorization. Access to vital areas inside the building is controlled by a physical structure that is equipped with intrusion detection equipment and locking devices, locks and alarms, as required by 10 CFR 73.55(e)(9)(i) through (iii). However, as discussed in the letter dated December 19, 2013, to the NRC, the licensee specified some vital equipment that is [[

]].

In July 2014, the NRC staff conducted a plant walk-down of the building and observed the equipment discussed in OCNGS's LAR. A summary of the NRC staff's visit to the plant can be found under ADAMS No. ML14220A512. Subsequently, the NRC staff issued a Request for Additional Information (RAI), which can be found under ADAMS No. ML14114A563.

### 3.0 SUMMARY OF APPLICATION

The proposed changes would institute alternative measures to 10 CFR 73.55(e)(9)(i) through (iii) at OCNGS related to certain portions of the building containing specified vital equipment not located within a designated vital area.

The current access to the building housing this equipment is processed through the physical protection requirements of the site protected area. Work authorization is processed through issuance of an ESRD before allowing access to radiation protection portals located in the building. Exelon identified a number of [[ ]], as discussed in Attachment 1 of the LAR. The specific locations discussed are Safeguards Information, which is protected under 10 CFR 73.21 and is withheld from public access pursuant to the requirements of 10 CFR 9.17. The NRC staff asked the licensee, in an RAI, to [[

]] in 10 CFR 73.55(e)(9)(i). In its response to the NRC staff's RAI, dated November 3, 2014 (ADAMS Accession No. ML14309A615), Exelon identified [[

]]. Other physical access locations were reevaluated by the licensee for safety and security interface, including emergency response, to ensure that potential adverse impacts to plant systems and security are considered and addressed prior to implementation of changes to physical layout, facilities, structures, systems, components, and operating procedures. The list of the physical access locations with [[ ]] is Safeguards Information, which is protected under 10 CFR 73.21 and is withheld from public access pursuant to the requirements of 10 CFR 9.17.



In the LAR, the licensee proposed the following five security measures as an alternative measure:

- (1) [[  
]],
- (2) Train general personnel of site security awareness to recognize the [[  
]] with limited access to the building,
- (3) Increase operations, security, security supervisors, and radiation protection personnel walk down (tour) of the plant,
- (4) Increase security focus awareness training for operations, security, security supervisors, and radiation protection personnel, and
- (5) Revise security-related procedures to implement these measures.

The licensee asserts that, if approved and implemented, the proposed alternative measures would provide a level of protection at least equal to that which would otherwise be provided by the specific requirements of 10 CFR 73.55(e)(9)(i) through (iii), and an acceptable technical basis for OCNCS to revise the site's specific physical security protection plan and supporting procedures under 10 CFR 50.54(p) requirements to meet the performance objective and requirements of 10 CFR 73.55(b).

#### 4.0 REGULATORY EVALUATION

The licensee is requesting the use of alternatives to the specific requirements of 10 CFR 73.55(e)(9)(i) through (iii).

- 10 CFR 73.55(e)(9)(i), states that vital equipment must be located only within vital areas, which must be located within a protected area so that access to vital equipment requires passage through at least two physical barriers, except as otherwise approved by the Commission and identified in the security plans.
- 10 CFR 73.55(e)(9)(ii) states that the licensee shall protect all vital area access portals and vital area emergency exits with intrusion detection equipment and locking devices that allow rapid egress during an emergency and satisfy the vital entry control requirements of this section.
- 10 CFR 73.55(e)(9)(iii) states that, unoccupied vital areas must be locked and alarmed.

In accordance with the requirements of 10 CFR 73.55(r), the NRC may authorize a licensee to provide a measure for protection against radiological sabotage other than one required by 10 CFR 73.55, if the licensee demonstrates that the measure meets the same performance objectives and requirements as specified in 10 CFR 73.55(b), and the proposed alternative measure provides a level of protection that is at least equal to that which would otherwise be provided by the specific requirement in 10 CFR 73.55.

Also, the regulations in 10 CFR 73.55(r)(3) state, in part, that, "[t]he licensee shall submit a technical basis for each proposed alternative measure." The basis must include an analysis or

assessment that demonstrates how the proposed alternative measure provides a level of protection that is at least equal to that which would otherwise be provided by the specific requirements.

## 5.0 TECHNICAL EVALUATION

The NRC staff's technical evaluation considers whether the security measures, as stated in the LAR, provide a level of protection at least equal to the protection provided by the measures required in 73.55(e)(9)(i) through (iii). These specific security measures enable a licensee to meet the performance objectives of 10 CFR 73.55(b) by ensuring that the licensee has the capabilities to detect, assess, interdict, and neutralize threats up to and including the design basis threat of radiological sabotage. The specific security measures of 73.55(e)(9)(i) through (iii) provide two primary security features: (1) physical barriers and (2) intrusion detection.

The physical barrier requirements in Section 73.55(e)(9)(i) through (iii) enable detection by giving security personnel a clear indication of when unauthorized access has occurred (e.g., because an unauthorized person is on the wrong side of a physical barrier). Similarly, alarms and intrusion detection systems provide a direct indicator, in the absence of direct observation, that a physical barrier has been breached.

In the LAR, the licensee specified some vital equipment that is [[

]]. These systems can be accessed from [[  
]], as discussed in Section 2

of Attachment 1 of OCNCS's LAR, which contains Safeguards Information and is protected under 10 CFR 73.21. This Safeguards Information is withheld from public disclosure pursuant to the requirements of 10 CFR 9.17.

The LAR explains that if the request is granted, there would only be [[ ]] physical barrier at the protected area. The portions of the building that contain the specified vital equipment would be [[ ]] controlled by the proposed alternative measures, and that there would be [[ ]] to the portions of the building that contain the specified vital equipment, except as specified in the LAR and in the licensee's response to the NRC staff RAI. The specific location of the building access portals and emergency exits is Safeguards Information, which is protected under 10 CFR 73.21 and is withheld from public disclosure pursuant to the requirements of 10 CFR 9.17. Instead, the licensee asserts in the LAR that the five proposed security measures, when combined with the physical barrier to the protected area, would provide a level of protection at least equal to compliance with the specific requirements of 10 CFR 73.55(e)(9)(i) through (iii).

The LAR asserts that the five proposed security measures enable the detection of threats.

Security Measure 1: [[

]].

In responding to the NRC staff RAI, the licensee indicated that the use of [[

]] to perform

work when a nuclear radiation worker training had not been certified, along with the issuance of the ESRD as part of work authorization, thereby limiting physical access to the building. The use of this proposed security measure would reduce the potential of unauthorized access to the restricted areas, through early detection, as part of work authorization process.

Security Measure 2: Train general personnel of site security awareness to recognize the [[ ] with limited access to the building.

Employees are trained to recognize and be aware of this [[ ] and limited access, and employees are required to report to security upon detecting an unauthorized access to the building. The training and reporting, as discussed in this proposed security measure, serve as an early alarm warning and contribute to the physical barrier protection.

Security Measure 3: Increase operations, security, security supervisors, and radiation protection personnel tours of the plant.

In addition to the security tour of the plant conducted by armed security personnel and security supervisors, operations and radiation protection personnel are required to document and verify the configuration readiness of vital equipment at locations identified in the LAR, to address potential tempering of equipment for security protection, as part of the plant tour. These required actions are implemented in the plant security protection procedures. The net effect of the proposed security measure provides a security presence in the building on a 24-hour, 7-day a week basis, to detect unauthorized access and to timely respond to potential threats through communication with the Central Alarm Station.

Security Measure 4: Increase security focus awareness training for operations, security, security supervisors, and radiation protection personnel.

As discussed above, the focused training and awareness of vital equipment with emphasis on equipment tempering protection, along with increased security tours enhance detections of intrusion to the building and of an unauthorized access to vital equipment. The net effect of the proposed Security Measures 3 and 4 is a constant security presence in the building to detect unauthorized access and to timely respond to potential threats, through communication with the Central Alarm Station.

Security Measure 5: Revise security-related procedures to implement the alternative measures.

This action formalizes the proposed alternative measures, through the plant specific security implementation procedures, to ensure that roles and responsibilities are defined, effective knowledge base is identified, and success criteria are defined.

The NRC staff finds that these proposed alternative measures would enable the detection, assessment, response, interdiction, and neutralization of security threats, because the proposed alternative measures provide for limited access, frequent visual observation, and a means of visually distinguishing unauthorized personnel in the vicinity of the vital equipment, by ensuring that individuals with training in detection and awareness will be observing the vital equipment

frequently. Therefore, the NRC staff concludes that these proposed alternative measures meet the performance objectives and requirements of 10 CFR 73.55(b).

As discussed above, the requirements in 10 CFR 73.55(e)(9)(i) through (iii) enable detection of unauthorized entry access to vital equipment. In addition, the licensee's proposed alternative provides a means of visually distinguishing unauthorized access to the vital equipment, limiting access to the building, as well as increasing the number of around the clock trained observers. Therefore, the NRC staff finds that the proposed alternative provides a detection capability at least equal to that provided by the specific measures required by 10 CFR 73.55(e)(9)(i) through (iii).

Based on the factors discussed above, the NRC staff concludes that the licensee's proposed alternative measures meets the same performance objectives specified in 10 CFR 73.55(b), and that they provide a level of protection that is at least equal to that which would otherwise be provided by the specific requirements of 10 CFR 73.55(e)(9)(i) through (iii). Therefore, the NRC staff finds the proposed alternative measures acceptable.

#### 6.0 STATE CONSULTATION

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

#### 7.0 ENVIRONMENTAL CONSIDERATION

This amendment relates solely to safeguards matters and does not involve any significant construction impacts. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (79 FR 25901, May 6, 2014). Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(12). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### 8.0 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) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: David Diec

Date: March 30, 2015

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March 30, 2015

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - ISSUANCE OF AMENDMENT REGARDING REACTOR BUILDING VITAL AREA ACCESS CONTROL (TAC NO. MF3295)

Dear Mr. Hanson:

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The amendment approves the proposed Security Plan changes to implement an “alternative measure” for satisfying applicable requirements of Title 10 of the *Code of Federal Regulations*, Section 73.55 related to controlling vital area access for certain portions of the Reactor Building at OCNGS.

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

Sincerely,  
**/RA/**

John G. Lamb, Senior Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-219

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**ADAMS Accession Nos. ML14329A625**  
**Non-Security-Related SE: ML15054A242**

**Security-Related SE: ML14329A872**  
**\*via e-mail**

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NAME	JLamb	ABaxter *	DHuyck*	SClark	DBroaddus (MKhanna for)	JLamb
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