

RA-16-021

May 17, 2016

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: License Amendment Request – Proposed Changes to Technical Specifications Section 6.0 Administrative Controls for Permanently Defueled Condition

- References:
1. Letter from Keith R. Jury, Exelon Generation Company, LLC to U.S. Nuclear Regulatory Commission - *"Permanent Cessation of Operations at Oyster Creek Nuclear Generating Station,"* dated January 7, 2011 (ML110070507)
 2. Letter from James Barstow, Exelon Generation Company, LLC to U.S. Nuclear Regulatory Commission - *"Request for Approval of Certified Fuel Handler Training Program,"* dated January 29, 2016 (ML16029A387)

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon) requests amendments to Appendix A, Technical Specifications (TS), of Renewed Facility Operating License No. DPR-16 for Oyster Creek Nuclear Generating Station (OCNGS).

On December 9, 2010, Exelon and the New Jersey Department of Environmental Protection (NJDEP) executed an Administrative Consent Order (ACO). Under the terms of this Order, Exelon agreed to permanently cease operations at OCNGS no later than December 31, 2019.

By letter dated January 7, 2011 (Reference 1), Exelon provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) of Exelon's contingent determination to permanently cease operations at OCNGS no later than December 31, 2019. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii), NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR 50 license. The basis for this proposed License Amendment Request (LAR) is that certain TS administrative controls may be revised or removed to reflect the permanently defueled condition.

Specifically, this LAR proposes changes to the organization, staffing, and training requirements contained in Section 6.0, *"Administrative Controls"* of the OCNGS TS. This proposed amendment also supports implementation of the Certified Fuel Handler training

program that was submitted to the NRC for approval by letter dated January 29, 2016 (Reference 2).

Exelon has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92.

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

Attachment 1 to this letter provides a detailed description and evaluation of the proposed changes to the TS. Attachment 2 contains the markup pages depicting the proposed changes to the TS.

Exelon requests review and approval of this proposed amendment by May 17, 2017, and a 60-day implementation period following the effective date of the amendment. Exelon requests that the approved amendment become effective following NRC approval of the Certified Fuel Handler training program (Reference 2) and following submittal of the required 10 CFR 50.82(a)(1)(ii) certification that OCNGS has been permanently defueled. Once effective, implementation will occur within the 60 days, as noted, but will not exceed March 29, 2020.

There are no regulatory commitments contained within this submittal.

In accordance with 10 CFR 50.91 "Notice for public comment; State consultation" paragraph (b), Exelon is notifying the State of New Jersey of this application for license amendment by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions concerning this submittal, please contact Paul Bonnett at (610) 765-5264.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17th day of May 2016.

Respectfully,

A handwritten signature in black ink, reading "Michael P. Gallagher". The signature is fluid and cursive, with a long horizontal stroke at the end.

Michael P. Gallagher
Vice President, License Renewal & Decommissioning
Exelon Generation Company, LLC

Attachments: 1. Evaluation of Proposed Changes
2. Markup of Proposed Technical Specifications Pages

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cc: w/Attachments

Regional Administrator - NRC Region I
NRC Senior Resident Inspector - Oyster Creek Nuclear Generating Station
NRC Project Manager, NRR - Oyster Creek Nuclear Generating Station
Director, Bureau of Nuclear Engineering - New Jersey Department of Environmental
Protection
Mayor of Lacey Township, Forked River, NJ

Attachment 1
License Amendment Request
Oyster Creek Nuclear Generating Station
Docket No. 50-219

EVALUATION OF PROPOSED CHANGES

Subject: Proposed Changes to Technical Specifications Section 6.0

- 1.0 SUMMARY DESCRIPTION
- 2.0 DETAILED DESCRIPTION
- 3.0 TECHNICAL EVALUATION
- 4.0 REGULATORY EVALUATION
 - 4.1 Applicable Regulatory Requirements/Criteria
 - 4.2 Precedent
 - 4.3 No Significant Hazards Consideration
 - 4.4 Conclusion
- 5.0 ENVIRONMENTAL CONSIDERATION
- 6.0 REFERENCES

1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, "*Application for amendment of license or construction permit*," Exelon Generation Company, LLC (Exelon), proposes changes to Appendix A, Technical Specifications (TS) of Renewed Facility Operating License No. DPR-16 for Oyster Creek Nuclear Generating Station (OCNGS).

On December 9, 2010, Exelon and the New Jersey Department of Environmental Protection (NJDEP) executed an Administrative Consent Order (ACO). Under the terms of this Order, Exelon agreed to permanently cease operations at OCNGS no later than December 31, 2019. By letter dated January 7, 2011 (Reference 1), Exelon provided formal notification to the U.S. Nuclear Regulatory Commission (NRC) of Exelon's contingent determination to permanently cease operations at OCNGS no later than December 31, 2019.

Once the certifications for permanent cessation of operations and removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii), NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement or retention of fuel into the reactor vessel under the 10 CFR 50 license.

In order to support activities at OCNGS once the site is in a permanently shutdown and defueled condition, some administrative controls may no longer be applicable and can be deleted or revised. Therefore, this License Amendment Request (LAR) proposes changes that would delete or revise certain organization, staffing, and training requirements contained in Section 6.0, "*Administrative Controls*," of the OCNGS TS to further support plant activities and decommissioning efforts following permanent cessation of operations.

Additionally, by letter dated January 29, 2016 (Reference 2), Exelon submitted a Certified Fuel Handler training program for NRC approval. This proposed LAR will support implementation of this program once approved, since licensed reactor operators will no longer be required to support plant operations. The need for licensed reactor operators is specified in Section 6.0 of the TS.

The proposed changes would not become effective until all of the following have occurred: the NRC has approved the OCNGS Certified Fuel Handler training program and the submittal of the required 10 CFR 50.82(a)(1)(ii) certification that OCNGS has been permanently defueled.

In the development of the proposed TS changes, Exelon reviewed the TS requirements from other plants that have permanently shutdown, primarily Vermont Yankee (Reference 4), Millstone Unit 1 (Reference 5), and Zion (Reference 7). Exelon also evaluated the applicable guidance in NUREG-1433, "Standard Technical Specifications, General Electric Plants (BWR 4)" (Reference 3).

This LAR provides a discussion and description of the proposed TS changes, a technical evaluation of the proposed TS changes and information supporting a finding of No Significant Hazards Consideration (NSHC).

2.0 DETAILED DESCRIPTION

The proposed TS markups are included in Attachment 2. The specific changes affecting TS Section 6.0 are described in this section with supporting technical evaluation that is presented in Section 3.0. All reformatting, renumbering, and rewording of the TS is in accordance with

Section 5.0 of BWR/4 Standard Technical Specifications (STS), NUREG-1433, Revision 4 (Reference 3). Editorial rewording, (either adding or deleting) is made consistent with STS except where noted to make the specification germane with a permanently defueled reactor.

TS Section 6.1 - Responsibility	
Current TS	Proposed TS
6.1.1 <i>The Vice President - Oyster Creek shall be responsible for overall facility operation. Those responsibilities delegated to the Vice President as stated in the Oyster Creek Technical Specifications may also be fulfilled by the Plant Manager. The Vice President shall delegate in writing the succession to this responsibility during his and/or the Plant Manager absence.</i>	<p>6.1.1 The Vice President - Oyster Creek Plant Manager shall be responsible for overall facility operation. Those responsibilities delegated to the Vice President as stated in the Oyster Creek Technical Specifications may also be fulfilled by the Plant Manager. The Vice President and shall delegate in writing the succession to this responsibility during his and/or the Plant Manager's absence.</p> <p><i>The Plant Manager or delegated designee shall approve, prior to implementation, each proposed test, experiment, or modification to systems or equipment that affect safe storage and maintenance of spent nuclear fuel.</i></p> <p>6.1.2 <i>The Shift Manager shall be responsible for the shift command function.</i></p>
TS Section 6.2 - Organization	
Current TS	Proposed TS
6.2.1 <u>Corporate</u>	6.2.1 Corporate <u>Onsite and Offsite Organizations</u>
6.2.1.1 <i>An onsite and offsite organization shall be established for unit operation and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant.</i>	6.2.1.1 An onsite Onsite and offsite organizations shall be established for unit operation facility staff and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant safe storage and handling of spent nuclear fuel.
6.2.1.2 <i>Lines of authority, responsibility and communication shall be established and defined from the highest management levels through intermediate levels to and including operating organization positions. These relationships shall be documented and updated as appropriate, in the form of organizational charts. These organizational charts will be documented in the Updated FSAR and updated in accordance with 10 CFR 50.71e.</i>	a. Lines of authority, responsibility and communication shall be established and defined from the highest management levels through intermediate levels to and including operating facility organization positions. These relationships shall be documented and updated as appropriate, in the form of organizational charts descriptions . These organizational charts descriptions will be documented in the Updated FSAR and updated in accordance with 10 CFR 50.71e.

<p>6.2.1.3 <i>The Chief Nuclear Officer shall have corporate responsibility for overall plant nuclear safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured.</i></p>	<p>b. The Vice President—Oyster Creek<i>Plant Manager shall be responsible for overall unit facility safe operation and shall have control over those onsite activities necessary for safe operation storage and maintenance of the plantspent nuclear fuel.</i></p> <p>c. The Chief Nuclear Officer <i>A specified corporate officer</i> shall have corporate responsibility for overall plant facility nuclear safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured<i>to the facility to ensure safe management of spent nuclear fuel.</i></p> <p>d. <i>Individuals who train the operating staff Certified Fuel Handlers and those who carry out the health physics and quality assurance functions shall have sufficient organizational freedom to be independent of operational pressures, however, they may report to the appropriate manager on site; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.</i></p>
<p>6.2.2 <u>FACILITY STAFF</u></p> <p>6.2.2.1 <i>The Vice President - Oyster Creek shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.</i></p> <p>6.2.2.2 <i>The facility organization shall meet the following:</i></p> <p>a. <i>Each on duty shift shall include at least the following shift staffing:</i></p> <ul style="list-style-type: none"> • One (1) Shift Manager (see h. below) • Two (2) licensed Nuclear Plant Operators • Three (3) licensed or non-licensed Nuclear Plant Operators • One (1) Shift Technical Adviser (see h. below) <p><i>Except for the Shift Manager, shift</i></p>	<p>6.2.2 <u>FACILITY STAFF</u><i>Facility Staff</i></p> <p>6.2.2.1— [Relocated to Section 6.2.1.b above and revised.]</p> <p>6.2.2.2—The facility organization shall meet the following:</p> <p>a. Each on duty shift shall include at least the following shift staffing:</p> <ul style="list-style-type: none"> • One (1) Shift Manager (see h f. below) • Two (2) licensed Nuclear Plant Operators<i>One (1) Non-Certified Operator (see g. below)</i> • Three (3) licensed or non-licensed Nuclear Plant Operators • One (1) Shift Technical Adviser (see h. below) <p>b. Except for the Shift Manager, Shift crew</p>

<p><i>crew composition may be one less than the minimum requirements, for a period of time not to exceed two hours, in order to accommodate unexpected absence of on-duty shift crew members. Immediate action must be taken to restore the shift crew composition to within requirements given above. This provision does not permit any shift crew position to be unmanned upon shift change due to an incoming shift crew member being late or absent.</i></p> <p>b. <i>At all times when there is fuel in the vessel, at least one licensed senior reactor operator shall be on site and one licensed reactor operator should be at the controls.</i></p> <p>c. <i>At all times when there is fuel in the vessel, except when the reactor is in COLD SHUTDOWN or REFUEL modes, two licensed senior reactor operators and two licensed reactor operators shall be on site, with at least one licensed senior reactor operator in the control room and one licensed reactor operator at the controls.</i></p> <p>d. <i>At least two licensed reactor operators shall be in the control room during all reactor startups, shutdowns, and other periods involving planned control rod manipulations.</i></p> <p>e. <i>All CORE ALTERATIONS shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.</i></p> <p>f. <i>An individual qualified in radiation protection measures shall be on site when fuel is in the reactor.</i></p> <p>g. <i>(deleted)</i></p> <p>h. <i>Each on duty shift shall include a Shift Technical Advisor except that the Shift</i></p>	<p>composition may be one less than the minimum requirements of 6.2.2.a for a period of time not to exceed two hours, in order to accommodate unexpected absence of on-duty shift crew members. Immediate action must be taken to restore the shift crew composition to within requirements given above. This provision does not permit any shift crew position to be unmanned upon shift change due to an incoming shift crew member being late or absent.</p> <p>c. At all times when there is fuel in the vessel, nuclear fuel is stored in the spent fuel pool, at least one licensed senior reactor operator shall be on site and one licensed reactor operator should be at the controls. person qualified to stand watch in the control room (non-certified operator or Certified Fuel Handler) shall be present in the control room.</p> <p>[c. Current TS Removed/Reformatted to above]</p> <p>d. Oversight of fuel handling operations shall be provided by a Certified Fuel Handler.</p> <p>[e. Current TS Removed/Reformatted to below]</p> <p>e. An individual qualified in radiation protection measures shall be on site when fuel is in the reactor during movement of fuel and during the movement of loads over the fuel.</p> <p>f. The Shift Manager shall be a Certified Fuel Handler.</p> <p>g. The position of non-certified operator may be filled by a Certified Fuel Handler.</p> <p>[h. Removed/Reformatted]</p>
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<p><i>Technical Advisors position need not be filled if the reactor is in the refuel or shutdown mode and the reactor is less than 212 F. The Shift Technical Advisor position may be filled by an on-shift Senior Reactor Operator (dual-role SRO/STA) provided the individual meets the requirements of 6.3.3.</i></p> <p><i>i. (deleted)</i></p> <p><i>j. The Senior Manager - Operations or an Operations Manager, and the Shift Manager require Senior Reactor Operators licenses. The licensed Nuclear Plant Operators require a Reactor Operators license.</i></p> <p>6.2.2.3 <i>Individuals who train the operating staff and those who carry out the health physics and quality assurance function shall have sufficient organizational freedom to be independent of operational pressures, however, they may report to the appropriate manager on site.</i></p>	<p>[i. Removed/Reformatted]</p> <p>[j. Removed/Reformatted]</p> <p>6.2.2.3 [Relocated to Section 6.2.1.d above and revised.]</p>
TS Section 6.3 - Facility Staff Qualifications	
Current TS	Proposed TS
<p>6.3.1 <i>Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 of 1978 for comparable positions unless otherwise noted in the Technical Specifications, with the following exceptions: 1) the licensed operators who shall comply only with the requirements of 10 CFR 55, and 2) technicians and maintenance personnel who do not meet ANSI/ANS 3.1 of 1978, Section 4.5, are permitted to perform work for which qualification has been demonstrated.</i></p> <p>6.3.2 <i>The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 (Rev. 1-R, 9/75). Each other member of the radiation protection organization for which there is a comparable position described in ANSI N18.1-1971 shall meet or exceed the minimum qualifications specified therein, or in the case of radiation protection technicians, they shall have at least one year's continuous experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to</i></p>	<p>6.3.1 Each member of the unit facility staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 of 1978 for comparable positions unless otherwise noted in the Technical Specifications. , with the following exceptions: 1) the licensed operators who shall comply only with the requirements of 10 CFR 55, and 2) Technicians and maintenance personnel who do not meet ANSI/ANS 3.1 of 1978, Section 4.5, are permitted to perform work for which qualification has been demonstrated.</p> <p>6.3.2 The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 (Rev. 1-R, 9/75). Each other member of the radiation protection organization for which there is a comparable position described in ANSI N18.1-1971 shall meet or exceed the minimum qualifications specified therein, or in the case of radiation protection technicians, they shall have at least one year's continuous experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those</p>

<p><i>those encountered in nuclear power stations and shall have been certified by the management position responsible for radiological controls as qualified to perform assigned functions. This certification must be based on an NRC approved, documented program consisting of classroom training with appropriate examinations and documented positive findings by responsible supervision that the individual has demonstrated his ability to perform each specified procedure and assigned function with an understanding of its basis and purpose.</i></p> <p>6.3.3 The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, response and analysis of the plant for transients and accidents.</p>	<p>encountered in nuclear power stations and shall have been certified by the management position responsible for radiological controls as qualified to perform assigned functions. This certification must be based on an NRC approved, documented program consisting of classroom training with appropriate examinations and documented positive findings by responsible supervision that the individual has demonstrated his ability to perform each specified procedure and assigned function with an understanding of its basis and purpose.</p> <p>6.3.3 The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, response and analysis of the plant for transients and accidents. <i>NRC-approved training and retraining program for Certified Fuel Handler shall be maintained.</i></p>
TS Section 6.4	
Current TS	Proposed TS
6.4 DELETED	6.4 DELETED[Relocated/Pagination Change]
TS Section 6.5	
Current TS	Proposed TS
6.5 DELETED	6.5 DELETED[Relocated/Pagination Change]
TS Section 6.6 – Reportable Event Action	
Current TS	Proposed TS
<p>6.6 REPORTABLE EVENT NOTIFICATION</p> <p>6.6.1 The following actions shall be taken for REPORTABLE EVENTS:</p> <p>a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50; and</p> <p>b. Each REPORTABLE EVENT shall be reported to the cognizant manager and the cognizant department director and the Vice President – Oyster Creek. The functionally cognizant department staff shall prepare a Licensee Event Report (LER) in accordance with the guidance outlined in 10 CFR 50.73(b). Copies of all such reports shall be submitted to the</p>	<p>6.6 REPORTABLE EVENT NOTIFICATION DELETED</p> <p>6.6.1 The following actions shall be taken for REPORTABLE EVENTS:</p> <p>a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50; and</p> <p>b. Each REPORTABLE EVENT shall be reported to the cognizant manager and the cognizant department director and the Vice President – Oyster Creek. The functionally cognizant department staff shall prepare a Licensee Event Report (LER) in accordance with the guidance outlined in 10 CFR 50.73(b). Copies of</p>

functionally cognizant department director and the Vice President - Oyster Creek.	all such reports shall be submitted to the functionally cognizant department director and the Vice President - Oyster Creek.
TS Section 6.7 - Safety Limit Violation	
Current TS	Proposed TS
<p>6.7 SAFETY LIMIT VIOLATION</p> <p>6.7.1 The following actions shall be taken in the event a Safety Limit is violated:</p> <p>a. If any Safety Limit is exceeded, the reactor shall be shut down immediately until the Commission authorizes the resumption of operation.</p> <p>b. The Safety Limit violation shall be reported to the Commission and the Vice President-Oyster Creek.</p> <p>c. A Safety Limit Violation Report shall be prepared. The report shall be submitted to the Vice President-Oyster Creek. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components systems or structures, (3) corrective action taken to prevent recurrence.</p> <p>d. The Safety Limit Violation Report shall be submitted to the Commission within ten days of the violation.</p>	<p>6.7 SAFETY LIMIT VIOLATION DELETED</p> <p>6.7.1 The following actions shall be taken in the event a Safety Limit is violated:</p> <p>a. If any Safety Limit is exceeded, the reactor shall be shut down immediately until the Commission authorizes the resumption of operation.</p> <p>b. The Safety Limit violation shall be reported to the Commission and the Vice President-Oyster Creek.</p> <p>c. A Safety Limit Violation Report shall be prepared. The report shall be submitted to the Vice President-Oyster Creek. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components systems or structures, (3) corrective action taken to prevent recurrence.</p> <p>d. The Safety Limit Violation Report shall be submitted to the Commission within ten days of the violation.</p>
TS Section 6.8 - Procedures and Programs	
Current TS	Proposed TS
<p>6.8.4 The following programs shall be established, implemented and maintained:</p> <p>a. <u>Radioactive Effluent Controls Program</u></p> <p>A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluent and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluent as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever</p>	<p>6.8.4 The following programs shall be established, implemented and maintained:</p> <p>a. <u>Radioactive Effluent Controls Program</u></p> <p>A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluent and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluent as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever</p>

<p><i>the program limits are exceeded. The program shall include the following elements:</i></p> <ol style="list-style-type: none"> <i>1. Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including the surveillance tests and setpoint determination in accordance with the methodology in the ODCM,</i> <i>2. Limitations on the concentrations of radioactive material released in liquid effluent to the UNRESTRICTED AREA conforming to less than the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402.</i> <i>3. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluent in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM.</i> <i>4. Limitations on the annual and quarterly doses and dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluent released to the UNRESTRICTED AREA conforming to Appendix I of 10 CFR 50,</i> <i>5. Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.</i> <i>6. Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in the 31 day period</i> 	<p>the program limits are exceeded. The program shall include the following elements:</p> <ol style="list-style-type: none"> 1. Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including the surveillance tests and setpoint determination in accordance with the methodology in the ODCM, 2. Limitations on the concentrations of radioactive material released in liquid effluent to the UNRESTRICTED AREA conforming to less than the concentration values in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2402. 3. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluent in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM. 4. Limitations on the annual and quarterly doses and dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluent released to the UNRESTRICTED AREA conforming to Appendix I of 10 CFR 50, 5. Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days. 6. Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in the 31 day period would exceed 2 percent of the guidelines for the
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<p><i>would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR 50,</i></p> <p>7. <i>Limitations on the dose rate resulting from radioactive materials released in gaseous effluents from the site to the UNRESTRICTED AREA shall be limited to the following:</i></p> <p>a. <i>For noble gases: Less than or equal to a dose rate of 500 mRems/yr to the total body and less than or equal to a dose rate of 3000 mRems/yr to the skin, and</i></p> <p>b. <i>For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mRems/yr to any organ.</i></p> <p>8. <i>Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents to the UNRESTRICTED AREA conforming to Appendix I of 10 CFR 50,</i></p> <p>9. <i>Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from 1-131, 1-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluent released beyond the SITE BOUNDARY conforming to Appendix I of 10 CFR 50,</i></p> <p>10. <i>Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from Uranium fuel cycle sources conforming to 40 CFR Part 190.</i></p>	<p>annual dose or dose commitment conforming to Appendix I to 10 CFR 50,</p> <p>7. Limitations on the dose rate resulting from radioactive materials released in gaseous effluents from the site to the UNRESTRICTED AREA shall be limited to the following:</p> <p>a. For noble gases: Less than or equal to a dose rate of 500 mRems/yr to the total body and less than or equal to a dose rate of 3000 mRems/yr to the skin, and</p> <p>b. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to a dose rate of 1500 mRems/yr to any organ.</p> <p>8. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents to the UNRESTRICTED AREA conforming to Appendix I of 10 CFR 50,</p> <p>9. Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from 1-131, 1-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluent released beyond the SITE BOUNDARY conforming to Appendix I of 10 CFR 50,</p> <p>10. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from Uranium fuel cycle sources conforming to 40 CFR Part 190.</p> <p><i>The provisions of SR 4.0.2 apply to the Radioactive Effluent Controls Program surveillance frequencies.</i></p>
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TS Section 6.9 - Reporting Requirements	
Current TS	Proposed TS
<p>6.9.1 <u>ROUTINE REPORTS</u></p> <p>a. <u>Startup Report.</u> A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specified details required in license conditions based on other commitments shall be included in this report.</p> <p>Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.</p> <p>d. <u>Radioactive Effluent Release Report</u></p> <p>The Radioactive Effluent Release Report covering the operation of the unit during the previous year shall be</p>	<p>6.9.1 <u>ROUTINE REPORTS</u></p> <p>a. <u>Startup Report.</u> DELETED A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specified details required in license conditions based on other commitments shall be included in this report.</p> <p>Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.</p> <p>d. <u>Radioactive Effluent Release Report</u></p> <p>The Radioactive Effluent Release Report covering the operation of the unit facility during the previous year shall be submitted</p>

<p><i>submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluent and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.</i></p> <p>e. <u>Annual Radiological Environmental Operating Report</u></p> <p><i>The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.</i></p> <p><i>The Report shall include summaries, interpretations, and an analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in: (1) the ODCM; and, (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.</i></p> <p>f. <u>CORE OPERATING LIMITS REPORT (COLR)</u></p> <p>1. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle for the following:</p> <p>a. The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) for Specification 3.10.A</p> <p>b. The K_f core flow adjustment factor for Specification 3.10.C.</p> <p>c. The MINIMUM CRITICAL POWER RATIO (MCPR) for Specification 3.10.C.</p>	<p>prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluent and solid waste released from the unit facility. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.</p> <p>e. <u>Annual Radiological Environmental Operating Report</u></p> <p>The Annual Radiological Environmental Operating Report covering the operation of the unit facility during the previous calendar year shall be submitted prior to May 1 of each year.</p> <p>The Report shall include summaries, interpretations, and an analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in: (1) the ODCM; and, (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.</p> <p>f. <u>CORE OPERATING LIMITS REPORT (COLR)</u>DELETED</p> <p>1. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle for the following:</p> <p>a. The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) for Specification 3.10.A</p> <p>b. The K_f core flow adjustment factor for Specification 3.10.C.</p> <p>c. The MINIMUM CRITICAL POWER RATIO (MCPR) for Specification 3.10.C.</p>
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<p>d. <i>The LOCAL LINEAR HEAT GENERATION RATE (LLHGR) for Specification 3.10.B.</i></p> <p>e. <i>The Average Power Range Monitor (APRM) stability protection settings for Specifications 2.3.A.1 and 2.3.B.</i></p> <p><i>and shall be documented in the COLR.</i></p> <p>2. <i>The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents.</i></p> <p>a. <i>GPU Nuclear (GPUN) Topical Report (TR) 020, Methods for the Analysis of Boiling Water Reactors Lattice Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>b. <i>GPUN TR 021, Methods for the Analysis of Boiling Water Reactors Steady State Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>c. <i>GPUN TR 033, Methods for the Generation of Core Kinetics Data for RETRAN-02, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>d. <i>GPUN TR 040, Steady-State and Quasi-Steady-State Methods Used in the Analysis of Accidents and Transients, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p>	<p>d. The LOCAL LINEAR HEAT GENERATION RATE (LLHGR) for Specification 3.10.B.</p> <p>e. The Average Power Range Monitor (APRM) stability protection settings for Specifications 2.3.A.1 and 2.3.B.</p> <p>and shall be documented in the COLR.</p> <p>2. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents.</p> <p>a. GPU Nuclear (GPUN) Topical Report (TR) 020, Methods for the Analysis of Boiling Water Reactors Lattice Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>b. GPUN TR 021, Methods for the Analysis of Boiling Water Reactors Steady State Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>c. GPUN TR 033, Methods for the Generation of Core Kinetics Data for RETRAN-02, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>d. GPUN TR 040, Steady State and Quasi-Steady State Methods Used in the Analysis of Accidents and Transients, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p>
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<p>e. <i>GPUN TR 045, BWR-2 Transient Analysis Model Using the Retran Code, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>f. <i>NEDE-31462P and NEDE-31462, Oyster Creek Nuclear Generating Station SAFER/CORECOOL/GESTR-LOCA Loss-of-Coolant Accident Analysis, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>g. <i>NEDE-24011-P-A, General Electric Standard Application for Reactor Fuel, (GESTAR II) (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</i></p> <p>h. <i>DELETED</i></p> <p>i. <i>XN-75-55-(A); XN-75-55, Supplement 1-(A); XN-75-55, Supplement 2-(A), Revision 2, "Exxon Nuclear Company WREM-Based NJP-BWR ECCS Evaluation Model and Application to the Oyster Creek Plant," April 1977</i></p> <p>j. <i>XN-75-36(NP)-(A); XN-75-36(NP), Supplement 1-(A), "Spray Cooling Heat Transfer Phase Test Results, ENC- 8x8 BWR Fuel 60 and 63 Active Rods, Interim Report," October 1975</i></p> <p>k. <i>NEDC-33065P, Rev. 0, "Application of Stability Long-Term Solution Option II for Oyster Creek," April 2002.</i></p> <p>3. <i>The core operating limits shall be</i></p>	<p>e. GPUN TR 045, BWR-2 Transient Analysis Model Using the Retran Code, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>f. NEDE-31462P and NEDE-31462, Oyster Creek Nuclear Generating Station SAFER/CORECOOL/GESTR-LOCA Loss-of-Coolant Accident Analysis, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>g. NEDE-24011-P-A, General Electric Standard Application for Reactor Fuel, (GESTAR II) (The approved revision at the time reload analyses are performed shall be identified in the COLR.)</p> <p>h. DELETED</p> <p>i. XN-75-55-(A); XN-75-55, Supplement 1-(A); XN-75-55, Supplement 2-(A), Revision 2, "Exxon Nuclear Company WREM-Based NJP-BWR ECCS Evaluation Model and Application to the Oyster Creek Plant," April 1977</p> <p>j. XN-75-36(NP)-(A); XN-75-36(NP), Supplement 1-(A), "Spray Cooling Heat Transfer Phase Test Results, ENC- 8x8 BWR Fuel 60 and 63 Active Rods, Interim Report," October 1975</p> <p>k. NEDC-33065P, Rev. 0, "Application of Stability Long-Term Solution Option II for Oyster Creek," April 2002.</p> <p>3. The core operating limits shall be</p>
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<p><i>determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.</i></p> <p>4. <i>The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements shall be provided, upon issuance for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.</i></p> <p><i>Basis: 6.9.1.e - RELOCATED TO THE ODCM.</i></p>	<p>determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.</p> <p>4. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements shall be provided, upon issuance for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.</p> <p>Basis: 6.9.1.e - RELOCATED TO THE ODCM.</p>
<p>6.9.2 <u>REPORTABLE EVENTS</u></p> <p><i>The submittal of Licensee Event Reports shall be accomplished in accordance with the requirements set forth in 10 CFR 50.73.</i></p>	<p>6.9.2 <u>REPORTABLE EVENTS</u> DELETED</p> <p>The submittal of Licensee Event Reports shall be accomplished in accordance with the requirements set forth in 10 CFR 50.73</p>

3.0 TECHNICAL EVALUATION

This technical evaluation is for administrative changes to OCNCS Technical Specifications (TS) Section 6, "Administrative Controls." All reformatting and renumbering is in accordance with the Section 5.0 of BWR/4 Standard Technical Specifications (STS), NUREG-1433, Revision 4 (Reference 3). As a result, the TS should be more readily readable, and therefore understandable, by plant operators as well as other users. The reformatting, renumbering, and rewording process involves no technical changes to the existing TS, except where specifically noted. Editorial rewording, (either adding or deleting) is made consistent with STS except where noted to make the specification germane with a permanently defueled reactor.

The majority of the accident events discussed in Chapter 15 of the Updated Final Safety Analysis Report (UFSAR) are not applicable to the reactor in its decommissioned state. The remaining Chapter 15 events applicable to OCNCS during decommissioning are:

- Design Basis Fuel Handling Accidents in the Containment
- Radioactive Liquid Waste System Leak
- Postulated Radioactive Releases Due to Liquid Tank Failures

The Fuel Handling Accident (FHA) is the limiting Chapter 15 dose event for OCNCS in its decommissioned state.

TS Section 6.1 – Responsibility

TS Section 6.1 "Responsibility," provides a description and requirements regarding certain key operational management responsibilities. The section includes certain requirements associated with reactor operation that are no longer permitted following submittal of the certifications required by 10 CFR 50.82(a). Therefore, those requirements are not needed for a permanently defueled condition because 10 CFR 50.82(a)(2) prohibits Exelon from operating the plant or placing fuel in the reactor vessel.

This section defines the individuals with overall responsibility for facility operation following permanent cessation of operations. This section is being revised to change the individuals responsible for overall management functions germane with a permanently defueled reactor. This section is being modified to be consistent with the applicable guidance and format TS 5.1 of STS, NUREG-1433, Revision 4 (Reference 3) with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.1.1 – TS 6.1.1 describes the managerial position with responsibility for overall plant operations following permanent shutdown. The assignment of the position for this responsibility is changed from the OCNCS Site Vice-President to the Plant Manager. The proposed change adds to the Plant Manager or delegated designee the responsibility of approving prior to its implementation, proposed tests, experiments, and modification to systems or equipment that affect the safe storage and maintenance of spent nuclear fuel once the unit is in a permanently defueled condition. This section is being modified to be consistent with the applicable guidance and format TS 5.1 of STS, NUREG-1433, Revision 4 (Reference 3) with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.1.2 – This TS section is being added to identify the Shift Manager as having the command function of the shift. STS states the "shift supervisor" shall be responsible for the Main Control Room (MCR) command function. The specification is being modified from the STS because safe operation in the permanently defueled condition consists primarily of ensuring safe management of the spent irradiated fuel that is stored onsite. Associated activities (e.g., fuel handling) do not necessarily rely on the MCR. The MCR will remain the physical center of the command function; however, since control of activities may be performed either remotely from the MCR or locally in the plant, the location of the command center is functionally where the shift supervisor (Shift Manager) is located. The proposed TS changes recognize that the delegation of authority for command and control aspects is different in a permanently shutdown and defueled plant from that for an operating plant when the Shift Manager leaves the MCR as stated in STS. Once OCNCS is in the permanently defueled condition with fuel in the Spent Fuel Pool (SFP), the number of relevant controls located in the MCR and the gradual nature of abnormal or accident situations (i.e., fuel handling accident, postulated liquid waste system leak) would not warrant that the command function remain in the control room. Adequate communications capability is provided to allow operators and plant personnel to safely manage storage and handling of irradiated fuel without reliance on the MCR for the command function.

TS Section 6.2 – Organization

TS 6.2 "Organization," provides a description and requirements regarding the corporate and facility organization. The section includes certain requirements associated with reactor operation that are no longer permitted following submittal of the certifications required by 10 CFR 50.82(a). Therefore, those requirements are not needed for a permanently defueled

condition because 10 CFR 50.82(a)(2) prohibits Exelon from operating the plant or placing fuel in the reactor vessel.

This TS section defines and describes the requirements regarding the onsite and offsite organizations for OCNGS. This section is being revised to align the applicable TS requirements with the reactor permanently shutdown and in a defueled condition. This section is being modified to be consistent with the applicable guidance and format TS 5.2 of STS with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.2.1 – The proposed TS change revises the section title from "Corporate" to "Onsite and Offsite Organizations." The reformatted TS section discusses both corporate and onsite organizations. This change is considered administrative in nature and is consistent with the format of TS 5.2.1 of STS.

TS 6.2.1.1 – This TS identifies the onsite and offsite organizational positions that are responsible for safe operation of the nuclear plant. The proposed TS changes the format of this paragraph to reflect the introductory statement of TS 5.2.1 in STS. The reformatting, renumbering, and rewording process is administrative and involves no technical changes to the existing TS. The paragraphs following this introductory statement are renumbered as subparts a through d. The proposed changes reflect a permanently defueled reactor and require that positions be established that are responsible for the safe management of the spent nuclear fuel.

The terms "unit," "unit operation," "power plant," and "plant" are typically associated with an operating reactor. The proposed changes revise these terms where applicable with terms such as "facility," "facility staff," and "spent nuclear fuel," which are considered more appropriate in representing the permanently shutdown and defueled condition.

The terms "safe storage and maintenance of spent nuclear fuel" and "safe management of spent nuclear fuel" are considered analogous to "nuclear safety" for a plant that will be in the permanently defueled condition. The proposed changes replace "nuclear safety" with one of these analogous phrases, which serve to narrow the focus of nuclear safety concerns to those with maintaining spent nuclear fuel. This change removes the implication that OCNGS can return to operation once the final certification required by 10 CFR 50.82(a)(1)(ii) is submitted to the NRC.

TS 6.2.1.2 – The proposed change involves renumbering this TS requirement as TS 6.2.1.a. This is considered an administrative change. The documentation of the organization is being changed from organizational charts to organizational descriptions. These descriptions will be maintained in the Updated Final Safety Analysis Report (UFSAR) or other appropriate documents (e.g., Quality Assurance Topical Report). This change is consistent with the format of TS 5.2.1.a of STS.

TS 6.2.1.b – The proposed change relocates and renumbers TS 6.2.2.1 to TS 6.2.1.b. The proposed change to this paragraph modifies the onsite organizational position responsible for ensuring that the facility is maintained in a safe condition. Following plant shutdown and permanent cessation of operations, nuclear safety will focus predominately on ensuring the safe control and management of spent nuclear fuel. To reflect the change in nuclear safety focus from an operating plant to a permanently shutdown and defueled facility, the responsibility for controlling the activities related to the safe storage, control, and maintenance of spent nuclear fuel is being changed from the OCNGS Site Vice President to the Plant Manager. This section is being modified to be consistent with the applicable

guidance and format TS 5.2.1.b of STS with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.2.1.3 – The proposed change renumbers TS 6.2.1.3 to TS 6.2.1.c. The proposed change to this section modifies the offsite organizational position responsible for ensuring that the facility is maintained in a safe condition. Following plant shutdown and permanent cessation of operations, nuclear safety will focus predominately on ensuring the safe control and management of spent nuclear fuel. The assignment of this responsibility is changed from the Chief Nuclear Officer (CNO) to a specified corporate officer. This proposed change provides Exelon the flexibility to assign overall responsibility to a designated corporate officer position other than CNO. The CNO is considered a corporate officer position. This position has no qualification requirements beyond the applicable requirements established in ANSI/ANS 3.1-1978. This section is being modified to be consistent with the applicable guidance and format TS 5.2.1.c of STS with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.2.2.3 – The proposed change relocates and renumbers TS 6.2.2.3 to TS 6.2.1.d. The proposed changes to this paragraph will modify the requirements related to organizational independence of the personnel who train the operations staff, health physics personnel, and quality assurance personnel from operating pressures. This change proposes to replace "operating staff" with "Certified Fuel Handlers" and to replace "their independence from operating pressures" to "their ability to perform their assigned functions." These proposed changes reflect the changed function of the previous operating staff to a focus on safe handling and storage of spent nuclear fuel, and to remove the implication that OCNCS can return to operation once permanently defueled and the final certification required by 10 CFR 50.82(a)(1)(ii) is submitted to the NRC. This section is being modified to be consistent with the applicable guidance and format TS 5.2.1.d of STS with the exception that it is adapted to reflect a permanently defueled condition.

TS 6.2.2 – The proposed change replaces the case of the title from all capital letters, "FACILITY STAFF," to capitalization of each word, "Facility Staff." This change is considered to be editorial in nature.

TS 6.2.2.1 – The proposed change relocates the paragraph to TS 6.2.1.b as part of the reformatting of this TS section. The paragraph is revised as discussed above. This change is consistent with the format of TS 5.2.1.b of STS.

TS 6.2.2.2 – The proposed change reformats this paragraph to reflect the introductory statement of TS 5.2.2 in STS. The reformatting, renumbering, and rewording process is administrative and involves no technical changes to the existing TS. The paragraphs following this introductory statement are renumbered as subparts a through g. The remaining subparts are removed as part of the TS reformatting outlined in this submittal.

TS 6.2.2.2.a – This section is being renumbered as TS 6.2.2.a, which is considered to be editorial in nature. This section describes the minimum shift staffing for plant operations. Since plant operations can never recur at OCNCS once the certifications required by 10 CFR 50.82(a)(1) are submitted to the NRC, the minimum staffing requirement is changed to a minimum crew compliment of one Shift Manager and one non-certified operator. The number and complexity of operating systems of an operating plant will be reduced to the systems

required to provide and support spent fuel pool cooling. This crew compliment is sufficient to monitor spent fuel pool parameters, such as pool level and temperature, while maintaining the ability to ensure spent fuel handling operations are carried out in a safe manner. Moreover, the spectrum of credible accidents and operational events, and the quantity and complexity of activities required for safety have been greatly reduced from that at an operating plant. The Shift Manager will be qualified as a Certified Fuel Handler in accordance with new paragraph 6.2.2.f. In this position, this individual will retain command and control responsibility for operational decisions and will be responsible for the functions required for event reporting and emergency response. The non-certified operator position can be filled by either a non-certified operator or by a Certified Fuel Handler in accordance with new paragraph 6.2.2.g.

TS 6.2.2.b – This section is being renumbered as TS 6.2.2.b, which is considered to be editorial in nature. This section addresses the conditions under which the minimum shift compliment may be reduced due to unforeseen circumstances. It allows for shift crew composition to be less than the minimum requirement of Specifications 6.2.2.a for a period of time, not to exceed 2 hours, in order to accommodate unexpected absence of on-duty shift crew members, provided immediate action is taken to restore the shift crew composition to within the minimum requirements. A reference to TS 6.2.2.a is being added to this paragraph.

TS 6.2.2.2.b – This paragraph is renumbered as TS 6.2.2.c, which is considered to be editorial in nature. This section establishes the requirement for one licensed Reactor Operator (RO) to be in the MCR when fuel is in the reactor. Following the certifications required by 10 CFR 50.82(a)(1) being submitted to the NRC, OCNGS will not be required to have operators licensed pursuant to 10 CFR 55; therefore, TS 6.2.2.2.b will not apply.

This section is changed to reflect the requirement for having one qualified watch stander (either a non-certified operator or Certified Fuel Handler) in the control room when fuel is stored in the spent fuel pool. This reflects the reduced requirement for control room personnel training and qualification for a plant authorized for nuclear fuel storage only. OCNGS has submitted a Certified Fuel Handler training program for NRC approval in Reference 2. The training and qualification for the non-certified operator will be determined in accordance with the Systems Approach to Training (SAT) as defined in 10 CFR 55.4. This process ensures that the non-certified operator will be qualified to perform the functions necessary to monitor and ensure safe storage of fuel. The SAT process requires (1) systematic analysis of the jobs to be performed, (2) learning objectives derived from the analysis which describe desired performance after training, (3) training design and implementation based on the learning objectives, (4) evaluation of trainee mastery of the objectives during training, and (5) evaluation and revision of the training based on the performance of trained personnel in the job setting. There will be a sufficient number of individuals qualified as Certified Fuel Handlers to staff the facility twenty four hours per day, seven days per week. Additional on-shift staffing will be provided to satisfy applicable security, fire protection, and emergency preparedness requirements.

The MCR will remain the physical center of the command function. However, since control of activities may be performed either remotely from the control room or locally in the plant, the location of the command center is functionally where the Shift Manager is located, in accordance with proposed TS 6.1.2. Activities that could be performed from the MCR that have the potential to affect forced cooling of spent nuclear fuel include changing the electrical power distribution system alignment.

All spent fuel handling activities including starting and stopping cooling water pumps are performed locally at the SFP. Indications and/or alarms are also received in the control room that would be indicative of spent fuel pool abnormalities. The Shift Manager is responsible for directing response to those abnormalities, from either the control room or local to the SFP, in accordance with applicable response procedures.

For any condition, incident, or event that occurs when the non-certified operator is in the control room alone and is not within the scope of qualifications that are possessed by the non-certified operator, the Shift Manager will be immediately contacted for direction by phone, radio, and/or plant page system. This philosophy is deemed acceptable because the necessity to render immediate actions to protect the health and safety of the public is not challenged.

TS 6.2.2.2.c – This section establishes the requirement for two licensed Senior Reactor Operators (SRO) and two licensed ROs to be onsite with at least one SRO in the control room and one RO at the controls when fuel is in the reactor vessel. Following the certifications required by 10 CFR 50.82(a)(1) being submitted to the NRC, OCNGS will not be required to have operators licensed pursuant to 10 CFR 55; therefore, TS 6.2.2.2.c will not apply and this paragraph is being deleted.

TS 6.2.2.2.d – This section establishes the requirement for two licensed ROs to be at the controls during startups, shutdowns, and other periods involving planned control rod manipulations. Once the certifications for permanent cessation of operations and removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii); NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement or retention of fuel into the reactor vessel under the 10 CFR 50 license. OCNGS will not be required to have operators licensed pursuant to 10 CFR 55; therefore, TS 6.2.2.2.d will not apply and this paragraph is being deleted.

TS 6.2.2.2.e – This paragraph is renumbered as TS 6.2.2.d, which is considered to be editorial in nature. This section establishes that all core alterations be directly supervised by a licensed SRO or SRO Limited to Fuel Handling. Once the certifications for permanent cessation of operations and removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii); the emplacement or retention of fuel in the reactor vessel will not be permitted. This specification is changed to establish the requirement for oversight of fuel handling operations in the SFP to be performed by a Certified Fuel Handler. Fuel moves and heavy load moves that could affect the safe handling and storage of spent nuclear fuel would be approved by the Shift Manager. Proposed TS 6.2.2.f requires the shift manager to be a Certified Fuel Handler.

TS 6.2.2.2.f – This paragraph is renumbered as TS 6.2.2.e, which is considered to be editorial in nature. This section establishes the requirement for a person qualified in radiation protection measures to be onsite when fuel is in the reactor. This requirement is being modified to require an individual qualified in radiation protection measures to be present on-site during the movement of fuel and during the movement of loads over fuel. Following submittal of the certification of permanent removal of fuel from the reactor vessel to the SFP, fuel will no longer be permitted to be emplaced or retained in the vessel. The modified TS reflect those remaining activities where individuals qualified in radiation protection measures are required to be present.

TS 6.2.2.f – This proposed change adds the requirement that the Shift Manager be a Certified Fuel Handler. This requirement ensures that the senior individual on shift is appropriately trained and qualified, in accordance with the NRC-approved Certified Fuel Handler training program, to supervise shift activities.

The OCNGS management structure will not require positions above the shift manager to be a Certified Fuel Handler or attend equivalent training. OCNGS has determined that, once the plant is permanently shutdown and defueled, the time available to mitigate credible events is expected to be greater than that for current design basis events. As such, management oversight of the plant can be performed by individuals meeting the applicable requirements of ANSI/ANS 3.1-1978 (as required by TS 6.3.1) and need not be qualified as Certified Fuel Handlers.

TS 6.2.2.2.g – This section was deleted previously. The proposed change adds the provision that the non-certified operator position required in TS 6.2.2.a may be filled by either a non-certified operator or by a Certified Fuel Handler. This minimum shift crew composition is appropriate for the safe management of spent irradiated nuclear fuel at a permanently defueled facility. This paragraph is renumbered as TS 6.2.2.g, which is considered to be editorial in nature.

TS 6.2.2.2.h – This section establishes the requirements for the Shift Technical Advisor (STA) position. This paragraph is deleted to remove the requirements for the STA since that position is only required for a plant authorized for power operations. Once the certifications required by 10 CFR 50.82(a)(1) have been submitted, the requirements of this specification will no longer be applicable because the OCNGS Part 50 license no longer will authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. This paragraph is being removed as part of the TS reformatting outlined in this submittal.

TS 6.2.2.2.i – This section was previously deleted and is being removed as part of the TS reformatting outlined in this submittal.

TS 6.2.2.2.j – This section establishes the requirement for the Senior Manager – Operations, and Shift Manager to hold an SRO license and the Nuclear Plant Operator to hold an RO license. This paragraph is being deleted. Once the certifications required by 10 CFR 50.82(a)(1) have been submitted, the requirements of 10 CFR 50.54(m) will no longer be applicable because the OCNGS Part 50 license no longer will authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. These certifications also obviate the need for the operators' licenses specified in 10 CFR 55. Therefore, there is no longer a need for operations management staff to hold a SRO license. This paragraph is being removed as part of the TS reformatting outlined in this submittal.

TS 6.2.2.3 – The proposed change relocates the paragraph to TS 6.2.1.d as part of the reformatting of this TS section. The paragraph is revised as discussed above. This change is consistent with the format of TS 5.2.1.d of STS.

TS 6.3 – Facility Staff Qualifications

TS 6.3.1 – This section establishes that each member of the unit staff meet or exceed the minimum qualification specified in ANSI/ANS 3.1 of 1978. Following the certifications required by 10 CFR 50.82(a)(1) being submitted to the NRC, OCNGS will not be required to have operators licensed pursuant to 10 CFR 55; therefore, exception 1) no longer applies and the

requirement is being removed. The term "unit" is being changed to "facility" to be more appropriate with a defueled condition, which is consistent with other changes in this LAR.

TS 6.3.2 – This section describes the qualifications for the radiological protection organization. There are no changes to this section.

TS 6.3.3 – This section requires the Shift Technical Advisor (STA) to have a bachelor's degree or equivalent. As stated in the justification for 6.2.2.2.h, the STA position is only required for a plant authorized for power operations; therefore, the qualification requirements for the STA position will no longer be required. TS 6.3.3 is being changed to require that an NRC approved training and retraining program for the Certified Fuel Handlers shall be maintained. The Certified Fuel Handler training program ensures that the qualifications of fuel handlers are commensurate with the tasks to be performed and the conditions requiring response. 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," requires training programs to be derived using a SAT as defined in 10 CFR 55.4. Although the requirements of 10 CFR 50.120 apply to holders of an operating license issued under Part 50, and the OCNGS license will no longer authorize operation following submittal of the certifications required by 10 CFR 50.82(a)(1), the Certified Fuel Handler training program nonetheless aligns with those requirements. The Certified Fuel Handler training program provides adequate confidence that appropriate SAT based training of personnel who will perform the duties of a Certified Fuel Handler is conducted to ensure the facility is maintained in a safe and stable condition.

TS 6.4 – Deleted. This proposed change relocates this item for a change in pagination.

TS 6.5 – Deleted. This proposed change relocates this item for a change in pagination.

TS 6.6 – Reportable Event Action

TS 6.6.1 – This section specifies that Licensee Event Reports (LER) shall be submitted pursuant to the requirements of 10 CFR 50.73. The actions of this section are required by regulation and it is not necessary to restate the requirements in the Technical Specifications. Existing administrative procedures control the LER process and detail the required actions currently specified in the TS. This section is being proposed to be deleted. The proposed change is an administrative change.

Page 6-3 of the TS Section 6 Administrative Controls is being deleted for a change in pagination. The note stating "(pages 6-3 through 6-8 deleted)" is being relocated at the bottom of page 6-2. This proposed change is considered to be editorial.

TS 6.7 – This section defines the requirements to immediately shutdown the reactor if a safety limit is exceeded. This proposed change is to delete this section. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii), NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR 50 license. Based on these considerations, this section may be deleted from the TS.

TS 6.8 – Procedures and Programs

TS 6.8.4.a – This section provides the description for the Radioactive Effluent Controls Program (RECP). The proposed change adds the statement that the provisions of SR 4.0.2 apply to the RECP. The current SR 4.0.2 for OCNGS provides a 24-hour delay to declare a limiting condition for operation not met if it is discovered that a surveillance was not performed. SR

4.0.2 is the equivalent of STS SR 3.0.3. This change is consistent with TS 5.5.4 of STS. STS also allows the provisions of SR 3.0.2. This provision is for the 25% grace period of the surveillance interval. The OCNGS TS already allows this provision as stated in definition 1.24 for Surveillance Requirements.

TS 6.9 – Reporting Requirements

TS 6.9.1.a – This paragraph describes the Start-up Report as a summary of plant startup and power escalation testing following the receipt of the Operating License, increase in licensed power level, installation of nuclear fuel with a different design or manufacturer, and modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the unit. This proposed change is to delete this paragraph. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii), NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR 50 license. Based on these considerations, the Startup Report may be deleted from the TS.

TS 6.9.1.b – No Change

TS 6.9.1.c – No Change

TS 6.9.1.d – To be consistent with other changes in this Amendment, the term "unit" is being changed to "facility," which is considered more appropriate for a plant in a permanently shutdown and defueled condition.

TS 6.9.1.e – To be consistent with other changes in this Amendment, the term "unit" to being changed to "facility," which is considered more appropriate with a plant in a permanently shutdown and defueled condition.

TS 6.9.1.f – This section describes the Core Operating Limits Report (COLR) that establishes prior to each reload cycle the reactor core operating limits. This change is proposing to delete the COLR because the COLR pertains only to an activity that does not apply in a permanently defueled condition. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC pursuant to 10 CFR 50.82(a)(1)(i) and (ii), NRC regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR 50 license. Based on these considerations, the COLR may be deleted from the TS.

TS 6.9.2 – This section specifies that Licensee Event Reports (LER) shall be submitted pursuant to the requirements of 10 CFR 50.73. The actions of this section are required by regulation and it is not necessary to restate the requirements in the Technical Specifications. Existing administrative procedures control the LER process and detail the required actions currently specified in the TS. This section is being proposed to be deleted as part of the TS reformatting outlined in this submittal.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met. Exelon has determined that the proposed changes do not require any exemptions or relief from regulatory requirements.

10 CFR 50.82 "*Termination of license.*"

(a) For power reactor licensees —

(1) (i) When a licensee has determined to permanently cease operations the licensee shall, within 30 days, submit a written certification to the NRC, consistent with the requirements of § 50.4(b)(8);

(ii) Once fuel has been permanently removed from the reactor vessel, the licensee shall submit a written certification to the NRC that meets the requirements of § 50.4(b)(9) and;

(2) Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, or when a final legally effective order to permanently cease operations has come into effect, the 10 CFR part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel.

By letter dated January 7, 2011 (Reference 1), Exelon provided formal notification to the NRC pursuant to 10 CFR 50.82(a)(1)(i) of Exelon's contingent determination to permanently cease operations at OCNCS no later than December 31, 2019.

10 CFR 50.36 "*Technical specifications.*"

(c) Technical specifications will include items in the following categories:

(5) *Administrative Controls.* Administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

The particular administrative controls to be included in the TS generally are requirements the NRC deems necessary to support the safe operation of a facility that are not already covered by other regulations. Although 10 CFR 50.36 includes these requirements, they are predominately specified in support of an operating plant. Once OCNCS is in a permanently shutdown and defueled condition, certain administrative controls described in the TS will no longer be required and can be deleted or modified as reflected in this LAR.

(6) *Decommissioning.* This paragraph applies only to nuclear power reactor facilities that have submitted the certifications required by § 50.82(a)(1) and to non-power reactor facilities which are not authorized to operate. Technical specifications involving safety limits, limiting safety system settings, and limiting control system settings; limiting conditions for operation; surveillance requirements; design features; and administrative controls will be developed on a case-by-case basis.

As noted above, by letter dated January 7, 2011 (Reference 1), Exelon provided formal notification to the NRC pursuant to 10 CFR 50.82(a)(1)(i) of Exelon's contingent determination to permanently cease operations at OCNCS no later than December 31, 2019. Upon submittal of the final certification pursuant to 10 CFR 50.82(a)(1)(ii) OCNCS will no longer be licensed to operate. The proposed changes delete or modify certain OCNCS TS administrative controls that are no longer applicable to a permanently shutdown and defueled facility.

10 CFR 50.54 "*Condition of licenses.*"

(m)(1) A senior operator licensed pursuant to part 55 of this chapter shall be present at the facility or readily available on call at all times during its operation, and shall be present at the facility during initial start-up and approach to power, recovery from an unplanned or unscheduled shut-down or significant reduction in power, and refueling, or as otherwise prescribed in the facility license.

In 10 CFR 50.54(m), the NRC established the requirement for having ROs and SROs licensed pursuant to 10 CFR 55 based on plant conditions. Since the initial certification has been submitted pursuant to 10 CFR 50.82(a)(1)(i) (Reference 1) and once the final certification required by 10 CFR 50.82(a)(1)(ii) has been submitted, the requirements of 10 CFR 50.54(m) will no longer be applicable since the 10 CFR 50 license at OCNGS will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. These certifications also obviate the need for the operators' license specified in 10 CFR 55; therefore, there is no longer a need for operations management staff to hold an SRO license. The Shift Manager will be qualified as a Certified Fuel Handler defined in 10 CFR 50.2. In this position, this individual will retain command and control responsibility for operational decisions and will be responsible for the functions required for event reporting and emergency response.

10 CFR 50.2 "Definitions."

Certified fuel handler means, for a nuclear power reactor facility, a non-licensed operator who has qualified in accordance with a fuel handler training program approved by the Commission.

By letter dated January 29, 2016 (Reference 2), Exelon submitted a request for NRC approval of Certified Fuel Handler training program for OCNGS. This request was submitted pursuant to 10 CFR 50.2.

10 CFR 55.2 "Scope."

The regulations in this part apply to --

(a) Any individual who manipulates the controls of any utilization facility licensed under parts 50, 52, or 54 of this chapter,

(b) Any individual designated by a facility licensee to be responsible for directing any licensed activity of a licensed operator.

(c) Any facility license.

As noted above, since the initial certification has been submitted pursuant to 10 CFR 50.82(a)(1)(i) (Reference 1) and once the final certification required by 10 CFR 50.82(a)(1)(ii) has been submitted, OCNGS will no longer be authorized to operate. Therefore, there is no longer a need for Operations staff to hold RO or SRO licenses and the requirements of 10 CFR 55.2 would not be applicable.

4.2 **Precedent**

The proposed changes are consistent with the existing TS administrative control requirements currently in effect for the permanently shutdown and defueled Vermont Yankee Nuclear Power Station (DPR-28), for which an amendment was issued on December 22, 2014 (Reference 4) and for the permanently shutdown and defueled Kewaunee Power Station (DPR-43), for which an amendment was issued on February 3,

2015 (Reference 8).

The proposed changes are also consistent with the TS administrative control requirements currently in effect for the permanently shutdown and defueled Millstone Nuclear Power Station (DPR-21), for which an amendment was substantively revised on March 31, 2001 (Reference 5); and the permanently shutdown and defueled Zion Nuclear Power Station, for which an amendment was issued on December 30, 1999 (Reference 7).

The proposed changes are consistent with the proposed TS administrative control requirements submitted for NRC approval for the James A. FitzPatrick Nuclear Power Plant (DPR-59), which was submitted on January 15, 2016 (Reference 9).

4.3 No Significant Hazards Consideration

Exelon has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "*Issuance of amendment*," as discussed below:

The proposed changes would revise and/or remove certain requirements contained within TS Section 6.0, Administrative Controls, of the Oyster Creek Nuclear Generating Station (OCNGS) TS. The TS requirements being changed would be applicable once it has been certified that all fuel has permanently been removed from the OCNGS reactor in accordance with 10 CFR 50.82(a)(1)(ii). Once the final certification is submitted documenting the permanent cessation of operations and permanent fuel removal, the 10 CFR 50 license for OCNGS no longer will authorize operation of the reactor or placement of fuel in the reactor vessel, in accordance with 10 CFR 50.82(a)(2).

The discussion below addresses each of these criteria and demonstrates that the proposed amendment does not constitute a significant hazard.

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

Response: No.

The proposed changes would not take effect until OCNGS has permanently ceased operation and entered a permanently defueled condition. The proposed changes would revise the OCNGS TS by deleting or modifying certain portions of the TS administrative controls described in Section 6.0 of the TS that are no longer applicable to a permanently shutdown and defueled facility.

The proposed changes do not involve any physical changes to plant Structures, Systems, and Components (SSCs) or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not involve a change to any safety limits, limiting safety system settings, limiting control settings, limiting conditions for operation, surveillance requirements, or design features.

The deletion and modification of provisions of the administrative controls do not directly affect the design of SSCs necessary for safe storage of spent irradiated fuel or the methods used for handling and storage of such fuel in the Spent Fuel Pool (SFP). The proposed changes are administrative in nature and do not affect any

accidents applicable to the safe management of spent irradiated fuel or the permanently shutdown and defueled condition of the reactor.

In a permanently defueled condition, the only credible accidents are the Fuel Handling Accident (FHA), Radioactive Liquid Waste System Leak, and Postulated Radioactive Releases Due to Liquid Tank Failures. Other accidents such as Loss of Coolant Accident, Loss of Feedwater, and Reactivity and Power Distribution Anomalies will no longer be applicable to a permanently defueled reactor plant.

The probability of occurrence of previously evaluated accidents is not increased, since extended operation in a permanently defueled condition will be the only operation allowed, and therefore, bounded by the existing analyses. Additionally, the occurrence of postulated accidents associated with reactor operation is no longer credible in a permanently defueled reactor. This significantly reduces the scope of applicable accidents.

Therefore, the proposed changes do not involve a significant increase in the probability or consequence of an accident previously evaluated.

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

Response: No.

The proposed changes to delete and/or modify certain TS administrative controls have no impact on facility SSCs affecting the safe storage of spent irradiated fuel, or on the methods of operation of such SSCs, or on the handling and storage of spent irradiated fuel itself. The proposed changes do not result in different or more adverse failure modes or accidents than previously evaluated because the reactor will be permanently shut down and defueled and OCNCS will no longer be authorized to operate the reactor.

The proposed changes do not affect systems credited in the accident analysis for the FHA, Radioactive Liquid Waste System Leak, and Postulated Radioactive Releases Due to Liquid Tank Failures at OCNCS. The proposed changes will continue to require proper control and monitoring of safety significant parameters and activities.

The proposed changes do not result in any new mechanisms that could initiate damage to the remaining relevant safety barriers in support of maintaining the plant in a permanently shutdown and defueled condition (e.g., fuel cladding and SFP cooling). Since extended operation in a defueled condition will be the only operation allowed, and therefore bounded by the existing analyses, such a condition does not create the possibility of a new or different kind of accident.

The proposed changes do not alter the protection system design, create new failure modes, or change any modes of operation. The proposed changes do not involve a physical alteration of the plant, and no new or different kind of equipment will be installed. Consequently, there are no new initiators that could result in a new or different kind of accident.

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

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

Response: No.

The proposed changes involve deleting and/or modifying certain TS administrative controls once the OCNGS facility has been permanently shutdown and defueled. As specified in 10 CFR 50.82(a)(2), the 10 CFR 50 license for OCNGS will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel following submittal of the certifications required by 10 CFR 50.82(a)(1). As a result, the occurrence of certain design basis postulated accidents are no longer considered credible when the reactor is permanently defueled.

The only remaining credible accident is a fuel handling accident (FHA). The proposed changes do not adversely affect the inputs or assumptions of any of the design basis analyses that impact the FHA.

The proposed changes are limited to those portions of the TS administrative controls that are related to the safe storage and maintenance of spent irradiated fuel. The requirements that are proposed to be revised and/or deleted from the OCNGS TS are not credited in the existing accident analysis for the remaining applicable postulated accident (i.e., FHA); therefore, they do not contribute to the margin of safety associated with the accident analysis. Certain postulated DBAs involving the reactor are no longer possible because the reactor will be permanently shut down and defueled and OCNGS will no longer be authorized to operate the reactor.

Therefore, the proposed changes do not involve a significant reduction in the margin of safety.

4.4 Conclusion

In conclusion, based on the considerations discussed above: 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment involves deleting or modifying certain TS administrative controls in support of proposed decommissioning efforts to reflect the permanently shutdown and defueled condition at OCNGS. The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

In addition, the proposed changes involve changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or

environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. Letter from Keith R. Jury, Exelon Generation Company, LLC to U.S. Nuclear Regulatory Commission - "*Permanent Cessation of Operations at Oyster Creek Nuclear Generating Station*," dated January 7, 2011, (ADAMS Accession No. ML110070507)
2. Letter from James Barstow, Exelon Generation Company, LLC to U.S. Nuclear Regulatory Commission - "*Request for Approval of Certified Fuel Handler Training Program*," dated January 29, 2016, (ADAMS Accession No. ML16029A387)
3. NUREG-1433, "Standard Technical Specifications General Electric BWR/4 Plants," Revision 4
4. Vermont Yankee Nuclear Power Station, Amendment 260, License No. DPR-28, Date of Issuance December 22, 2014 (ADAMS Accession No. ML14217A072)
5. Millstone Nuclear Power Station, Unit 1, Amendment No.109, License No. DPR-21, Date of Issuance March 31, 2001 (ADAMS Accession No. ML010920303)
6. NRC Safety Evaluation for Millstone Power Station Unit 1 in License Amendment 106 to DPR-21, dated November 9, 1999 (ADAMS Accession Nos. ML993330283 and ML993330269)
7. NRC Safety Evaluation for Zion Nuclear Station in License Amendments 180 and 167 (for Units 1 and 2 respectively (License Nos. DPR-39 and DPR-48)), dated December 30, 1999 (ADAMS Accession Nos. ML003672704 and ML003672696)
8. Kewaunee Power Station, Amendment 215, License No. DPR-43, Date of issuance February 3, 2015 (ADAMS Accession No. ML14237A045)
9. James A. FitzPatrick Nuclear Power Plant, License Amendment Request, License No. DPR-59, Date of Submission January 15, 2016 (ADAMS Accession No. ML16015A456).

Attachment 2

Proposed Technical Specifications (Marked-Up Pages)

**Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219**

Changes to the staffing and training requirements for the OCNGS staff contained in Section 6.0, Administrative Controls, of the OCNGS Technical Specifications (TS).

TS Pages

6-1
6-2
6-2a
6-3
6-9
6-12
6-13
6-14
6-14a
6-15

ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

Plant Manager

6.1.1 The Vice President ~~Oyster Creek~~ shall be responsible for overall facility operation. ~~These responsibilities delegated to the Vice President as stated in the Oyster Creek Technical Specifications may also be fulfilled by the Plant Manager. The Vice President shall delegate in writing the succession to this responsibility during his and/or the Plant Manager's absence.~~

INSERT A

INSERT B

6.2 ORGANIZATION

Onsite and Offsite Organizations

6.2.1 Corporate

Onsite

organizations

facility staff

6.2.1.1 An onsite and offsite organization shall be established for unit operation and corporate management. The onsite and offsite organization shall include the positions for activities affecting the safety of the nuclear power plant.

safe storage and handling of spent nuclear fuel.

6.2.1.2 Lines of authority, responsibility and communication shall be established and defined from the highest management levels through intermediate levels to and including operating organization positions. These relationships shall be documented and updated as appropriate, in the form of organizational charts. These organizational charts will be documented in the Updated FSAR and updated in accordance with 10 CFR 50.71e.

a.

INSERT C

c.

6.2.1.3 The Chief Nuclear Officer shall have corporate responsibility for overall plant nuclear safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support in the plant so that continued nuclear safety is assured.

descriptions

A specified corporate officer

facility

INSERT D

6.2.2 FACILITY STAFF

Facility Staff

6.2.2.1 The Vice President ~~Oyster Creek~~ shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.

to the facility to ensure safe management of spent nuclear fuel

6.2.2.2 The facility organization shall meet the following:

a. Each on duty shift shall include at least the following shift staffing:

One (1) Non-Certified Operator (see g. below)

- One (1) Shift Manager (see h. below)
- Two (2) licensed Nuclear Plant Operators
- Three (3) licensed or non licensed Nuclear Plant Operators
- One (1) Shift Technical Advisor (see h. below)

f.

b. Shift

Except for the Shift Manager, shift crew composition may be one less than the minimum requirements, for a period of time not to exceed two hours, in order to accommodate unexpected absence of on-duty shift crew members. Immediate action must be taken to restore the shift crew

of 6.2.2.a

Insert A

The Plant Manager or delegated designee shall approve, prior to implementation, each proposed test, experiment, or modification to systems or equipment that affect safe storage and maintenance of spent nuclear fuel.

Insert B

6.1.2 The Shift Manager shall be responsible for the shift command function.

Insert C

- b. The Plant Manager shall be responsible for overall facility safe operation and shall have control over those onsite activities necessary for safe storage and maintenance of spent nuclear fuel.

Insert D

- d. Individuals who train the Certified Fuel Handlers and those who carry out the health physics and quality assurance functions may report to the appropriate manager on site; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

nuclear fuel is stored in the spent fuel pool

c.

person qualified to stand watch in the control room (non-certified operator or Certified Fuel Handler)

composition to within requirements given above. This provision does not permit any shift crew position to be unmanned upon shift change due to an incoming shift crew member being late or absent.

b.

At all times when there is fuel in the vessel, at least one licensed senior reactor operator shall be on site and one licensed reactor operator should be at the controls.

present in the control room.

e.

At all times when there is fuel in the vessel, except when the reactor is in COLD SHUTDOWN or REFUEL modes, two licensed senior reactor operators and two licensed reactor operators shall be on site, with at least one licensed senior reactor operator in the control room and one licensed reactor operator at the controls.

Oversight of fuel handling operations shall be provided by a Certified Fuel Handler.

d.

At least two licensed reactor operators shall be in the control room during all reactor startups, shutdowns, and other periods involving planned control rod manipulations.

e.

All CORE ALTERATIONS shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.

e.

f. The Shift Manager shall be a Certified Fuel Handler.

f.

An individual qualified in radiation protection measures shall be on site when fuel is in the reactor.

during movement of fuel and during the movement of loads over the fuel.

g.

(deleted)

h.

Each on duty shift shall include a Shift Technical Advisor except that the Shift Technical Advisors position need not be filled if the reactor is in the refuel or shutdown mode and the reactor is less than 212 F. The Shift Technical Advisor position may be filled by an on shift Senior Reactor Operator (dual role SRO/STA) provided the individual meets the requirements of 6.3.3.

The position of non-certified operator may be filled by a Certified Fuel Handler.

i.

(deleted)

- j- ~~The Senior Manager Operations or an Operations Manager, and the Shift Manager require Senior Reactor Operators licenses. The licensed Nuclear Plant Operators require a Reactor Operators license.~~

~~6.2.2.3 Individuals who train the operating staff and those who carry out the health physics and quality assurance function shall have sufficient organizational freedom to be independent of operational pressures, however, they may report to the appropriate manager on site.~~

6.3 Facility Staff Qualifications

- 6.3.1 Each member of the ~~unit~~ **facility** staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 of 1978 for comparable positions unless otherwise noted in the Technical Specifications, ~~with the following exceptions: 1) the licensed operators who shall comply only with the requirements of 10 CFR 55, and 2) technicians and maintenance personnel who do not meet ANSI/ANS 3.1 of 1978, Section 4.5, are permitted to perform work for which qualification has been demonstrated.~~
- 6.3.2 The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 (Rev. 1-R, 9/75). Each other member of the radiation protection organization for which there is a comparable position described in ANSI N18.1-1971 shall meet or exceed the minimum qualifications specified therein, or in the case of radiation protection technicians, they shall have at least one year's continuous experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations and shall have been certified by the management position responsible for radiological controls as qualified to perform assigned functions. This certification must be based on an NRC approved, documented program consisting of classroom training with appropriate examinations and documented positive findings by responsible supervision that the individual has demonstrated his ability to perform each specified procedure and assigned function with an understanding of its basis and purpose.
- 6.3.3 ~~The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, response and analysis of the plant for transients and accidents.~~

The NRC-approved training and retraining program for Certified Fuel Handlers shall be maintained.

~~6.4 DELETED~~

~~6.5 DELETED~~

This Page Deleted

~~6-3~~

~~(Pages 6-4 through 6-8 deleted)~~

~~OYSTER CREEK~~

~~Amendment No.: 60,78,80,108,117,125,134,161,
180,181,194,203,210,213,224,232,251, 273~~



← 6.4 DELETED
6.5 DELETED

6.6 REPORTABLE EVENT ACTION

← DELETED

~~6.6.1~~ The following actions shall be taken for ~~REPORTABLE EVENTS~~:

- ~~a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50; and~~
- ~~b. Each REPORTABLE EVENT shall be reported to the cognizant manager and the cognizant department director and the Vice President Oyster Creek. The functionally cognizant department staff shall prepare a Licensee Event Report (LER) in accordance with the guidance outlined in 10 CFR 50.73(b). Copies of all such reports shall be submitted to the functionally cognizant department director and the Vice President Oyster Creek.~~

6.7 SAFETY LIMIT VIOLATION

← DELETED

~~6.7.1~~ The following actions shall be taken in the event a Safety Limit is violated:

- ~~a. If any Safety Limit is exceeded, the reactor shall be shut down immediately until the Commission authorizes the resumption of operation.~~
- ~~b. The Safety Limit violation shall be reported to the Commission and the Vice President Oyster Creek.~~
- ~~c. A Safety Limit Violation Report shall be prepared. The report shall be submitted to the Vice President Oyster Creek. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components systems or structures, (3) corrective action taken to prevent recurrence.~~
- ~~d. The Safety Limit Violation Report shall be submitted to the Commission within ten days of the violation.~~

(pages 6-3 through 6-8 deleted)

The provisions of SR 4.0.2 apply to the Radioactive Effluent Controls Program surveillance frequencies.

9. Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from 1-131, 1-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluent released beyond the SITE BOUNDARY conforming to Appendix I of 10 CFR 50,
10. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from Uranium fuel cycle sources conforming to 40 CFR Part 190.

b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

1. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,
2. A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
3. Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.8.5 Station Battery Monitoring and Maintenance Program

This Program provides for restoration and maintenance, based on the recommendations of IEEE Standard 450, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries For Stationary Applications," of the following:

- a. Actions to restore station battery cells with float voltage < 2.13 volts, and
- b. Actions to equalize and test station battery cells that have been discovered with electrolyte level below the top of the plates.

6.9 REPORTING REQUIREMENTS

In addition to the applicable reporting requirements of 10 CFR, the following identified reports shall be submitted to the Administrator of the NRC Region I office unless otherwise noted.

6.9.1 ROUTINE REPORTS

- a. ~~Startup Report. A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specified details required in license conditions based on other commitments shall be included in this report.~~

DELETED

~~Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.~~

- b. DELETED

- c. DELETED

d. Radioactive Effluent Release Report

facility

The Radioactive Effluent Release Report covering the operation of the ~~unit~~ during the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluent and solid waste released from the ~~unit~~. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

e. Annual Radiological Environmental Operating Report

facility

The Annual Radiological Environmental Operating Report covering the operation of the ~~unit~~ during the previous calendar year shall be submitted prior to May 1 of each year.

The Report shall include summaries, interpretations, and an analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in: (1) the ODCM; and, (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

f. ~~CORE OPERATING LIMITS REPORT (COLR)~~

DELETED

- ~~1. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle for the following:~~
 - ~~a. The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) for Specification 3.10.A~~
 - ~~b. The K_r core flow adjustment factor for Specification 3.10.C.~~
 - ~~c. The MINIMUM CRITICAL POWER RATIO (MCPR) for Specification 3.10.C.~~
 - ~~d. The LOCAL LINEAR HEAT GENERATION RATE (LLHGR) for Specification 3.10.B.~~
 - ~~e. The Average Power Range Monitor (APRM) stability protection settings for Specifications 2.3.A.1 and 2.3.B.~~
- ~~and shall be documented in the COLR.~~

(Pages 6-14a and 6-15 deleted)

- ~~2. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents.~~
- ~~a. GPU Nuclear (GPUN) Topical Report (TR) 020, Methods for the Analysis of Boiling Water Reactors Lattice Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - ~~b. GPUN TR 021, Methods for the Analysis of Boiling Water Reactors Steady State Physics, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~

- e. ~~GPUN TR-033, Methods for the Generation of Core Kinetics Data for RETRAN-02, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - d. ~~GPUN TR-040, Steady State and Quasi Steady State Methods Used in the Analysis of Accidents and Transients, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - e. ~~GPUN TR-045, BWR 2 Transient Analysis Model Using the Retran Code, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - f. ~~NEDE 31462P and NEDE 31462, Oyster Creek Nuclear Generating Station SAFER/CORECOOL/GESTR LOCA Loss of Coolant Accident Analysis, (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - g. ~~NEDE 24011 P A, General Electric Standard Application for Reactor Fuel, (GESTAR II) (The approved revision at the time reload analyses are performed shall be identified in the COLR.)~~
 - h. ~~DELETED~~
 - i. ~~XN 75-55 (A); XN 75-55, Supplement 1 (A); XN 75-55, Supplement 2 (A), Revision 2, "Exxon Nuclear Company WREM-Based NJP BWR ECCS Evaluation Model and Application to the Oyster Creek Plant," April 1977~~
 - j. ~~XN 75-36(NP) (A); XN 75-36(NP), Supplement 1 (A), "Spray Cooling Heat Transfer Phase Test Results, ENC-8x8 BWR Fuel 60 and 63 Active Rods, Interim Report," October 1975~~
 - k. ~~NEDC 33065P, Rev. 0, "Application of Stability Long Term Solution Option II for Oyster Creek," April 2002.~~
3. ~~The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.~~
4. ~~The CORE-OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements shall be provided, upon issuance for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.~~

Basis: 6.9.1.e - RELOCATED TO THE ODCM.

6.9.2 REPORTABLE EVENTS

← DELETED

~~The submittal of Licensee Event Reports shall be accomplished in accordance with the requirements set forth in 10 CFR 50.73.~~