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John W. Boyle
Director, Nuclear Decommissioning

10 CFR 50.90

BVY 17-007

May 1, 2017

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

SUBJECT: License Amendment Request – Cyber Security Plan Implementation Schedule
Proposed Change No. 314
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

- REFERENCES:
1. NRC Internal Memorandum to Barry Westreich from Russell Felts, *Review Criteria for 10 CFR 73.54, Cyber Security Implementation Schedule Milestone 8 License Amendment Requests*, dated October 24, 2013 (ML13295A467)
 2. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment Re: License Amendment Request – Cyber Security Plan (TAC No. ME4296)*, NVEY 11-056, dated July 20, 2011 (ML11152A013)
 3. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule Milestone (TAC No. ME9012)*, NVEY 12-075, dated November 13, 2012 (ML12261A292)
 4. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule (TAC No. MF3306)*, NVEY 14-082, dated November 12, 2014 (ML14206A710)
 5. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule (CAC No. MF6403)*, NVEY 16-009, dated March 14, 2016 (ML16014A169)
 6. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel*, BVY 15-001, dated January 12, 2015 (ML15013A426)
 7. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Independent Spent Fuel Storage Installation Physical Security Plan, Revision 0*, BVY 17-003, dated March 29, 2017

SDDIA
NRR

Dear Sir or Madam:

Pursuant to 10 CFR 50.4 and 10 CFR 50.90, Entergy Nuclear Operations, Inc. (ENO) hereby requests an amendment to the Renewed Facility Operating License (RFOL) for Vermont Yankee Nuclear Power Station (VY). In accordance with the criteria provided by Reference 1, this request proposes a change to the VY Cyber Security Plan (CSP) Milestone 8 implementation date as set forth in the CSP implementation schedule approved by Reference 2 as supplemented by References 3, 4 and 5. Milestone 8 concerns the full implementation of the CSP.

By Reference 6, ENO submitted to the NRC certifications of permanent cessation of power operations at VY and permanent defueling of the VY reactor vessel in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii), respectively. Pursuant to 10 CFR 50.82(a)(2), the VY 10 CFR Part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel. Spent fuel is currently stored onsite in the spent fuel pool and in an independent spent fuel storage installation (ISFSI). To support the decommissioning of VY, ENO is requesting a change to the VY CSP Milestone 8 date that is beyond when the transfer of all spent fuel to the ISFSI is expected to be completed. Provided that the criteria for transfer are met, including certain regulatory approvals, this is expected to be completed in late 2018. During the Milestone 8 extension period, ENO plans to maintain the previously implemented CSP interim Milestones 1 through 7, which were completed by December 31, 2012.

Attachment 1 provides an analysis of the proposed change. Attachment 2 contains the marked-up VY RFOL pages for the proposed change to license condition 3.G "Security Plan," which references the amendments for the Commission-approved VY CSP. Attachment 3 contains the retyped RFOL pages. Attachment 4 contains a proposed revision to the VY CSP Milestone 8 implementation schedule. Attachment 5 contains a revised commitment related to the full implementation of the VY CSP.

In Reference 7, ENO submitted a separate license amendment request pursuant to 10 CFR 50.90 for approval of the VY ISFSI Physical Security Plan, Revision 0. Reference 7 included a proposed change to the Security Plan license condition which is independent of the proposed change contained herein.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1), *Notice for public comment*, using criteria in 10 CFR 50.92(c), and it has been determined that the change involves no significant hazards consideration. The bases for this determination are included in Attachment 1.

Although this request is neither exigent nor emergency, ENO requests approval of the proposed amendment by December 15, 2017. Once approved, the amendment will be effective as of the date of issuance and shall be implemented within 30 days.

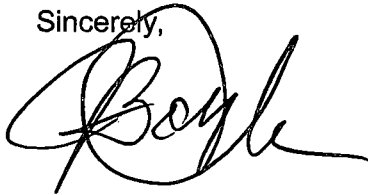
This letter contains a revised commitment related to the full implementation of the VY CSP, which is provided in Attachment 5.

In accordance with 10 CFR 50.91(b), *State consultation*, ENO is notifying the State of Vermont of this proposed license amendment by transmitting a copy of this letter, with attachments, to the designated state official.

Should you have any questions concerning this letter, or require additional information, please contact Mr. Coley C. Chappell at 802-451-3374.

I declare under penalty of perjury that the foregoing is true and correct. Executed on May 1, 2017.

Sincerely,

A handwritten signature in black ink, appearing to read 'Boyle' or similar, written over a circular scribble.

JWB/ccc

- Attachments:
1. Analysis of Proposed Change
 2. Proposed Operating License Changes (mark-up)
 3. Revised Operating License Pages (retyped)
 4. Revised Cyber Security Plan Implementation Schedule
 5. Revised Regulatory Commitment

cc: Mr. Daniel H. Dorman
Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
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Mr. Jack D. Parrott, Sr. Project Manager
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U.S. Nuclear Regulatory Commission
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Ms. June Tierney, Commissioner
Vermont Department of Public Service
112 State Street – Drawer 20
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Attachment 1

Analysis of Proposed Change

1.0 SUMMARY DESCRIPTION

Entergy Nuclear Operations, Inc. (ENO) is submitting a request for an amendment to the Renewed Facility Operating License (RFOL) for Vermont Yankee Nuclear Power Station (VY). This amendment request proposes a change to the Cyber Security Plan (CSP) Milestone 8 implementation date and a revision to license condition 3.G "Security Plan," which references the amendments containing the CSP milestones. Milestone 8 of the CSP implementation schedule concerns the full implementation of the CSP. This change is requested to support the decommissioning of VY. Spent fuel is currently stored onsite in the spent fuel pool (SFP) and in an independent spent fuel storage installation (ISFSI). ENO is proposing an extension to the Milestone 8 implementation date from December 15, 2017, to July 31, 2019, for full implementation of the CSP for all applicable safety, security, and emergency preparedness (SSEP) functions. The proposed change to the Milestone 8 date is beyond when the transfer of all spent fuel to the ISFSI is expected to be completed.

2.0 DETAILED DESCRIPTION

On July 16, 2010, as supplemented by letters dated February 15 and April 4, 2011, ENO submitted a request to amend the VY OL for approval of the VY CSP and implementation schedule as required by 10 CFR 73.54, *Protection of digital computer and communication systems and networks*. The schedule was approved by Reference 1 as supplemented by References 2, 3 and 4, and consists of eight Milestones. Interim Milestones 1 through 7 were completed by December 31, 2012, and continue to be maintained. As approved by Reference 4, Milestone 8 implementation (full compliance with the cyber security rule 10 CFR 73.54) is required to be completed by December 15, 2017. However, VY has submitted the certifications for permanent shutdown and defueling of the reactor, is now beyond when fuel stored in the spent fuel pool (SFP) has decayed to a point where a fire in the zirconium fuel cladding following a postulated beyond-design-basis event involving the loss of SFP water inventory is unlikely, and furthermore expects to complete the transfer of spent fuel from the SFP to the ISFSI by late 2018.

Spent fuel is currently stored onsite in the SFP and in an ISFSI. To support the decommissioning of VY, ENO is requesting a change to the VY CSP Milestone 8 date to beyond when the transfer of all spent fuel to the ISFSI is expected to be completed. In Reference 5, the NRC provided criteria to be used for evaluation of a license amendment request to revise the CSP implementation schedule Milestone 8 date.

By Reference 6, dated January 12, 2015, ENO submitted to the NRC certifications of permanent cessation of power operations at VY and permanent defueling of the VY reactor vessel in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii), respectively. Pursuant to 10 CFR 50.82(a)(2), the VY 10 CFR Part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel. Permanent cessation of reactor operations occurred on December 29, 2014.

In Reference 7, ENO submitted a site-specific analysis of a beyond-design-basis accident at VY consisting of a postulated drain down of the SFP water that would effectively impede any decay heat removal. This analysis demonstrates that at 15.4 months after shutdown, there would be at least 10 hours after the spent fuel assemblies in the SFP have been uncovered until the limiting fuel assembly (for decay heat and adiabatic heatup analysis) reaches 900 degrees Celsius, the temperature used to assess the potential for onset of fission product release. The analysis conservatively assumed the heat up time starts when the SFP has been completely drained, although it is likely that site personnel will start to respond to an incident when drain down starts. The analysis also does not consider the period of time from the postulated initiating event causing loss of SFP water inventory until cooling is lost. By Reference 8, the NRC issued exemptions to VY based on the information provided in Reference 7. Based on the shutdown date and minimum 15.4 months after shutdown, approximately one year of additional cooling time has occurred.

As described in Reference 8, since VY is permanently shutdown and defueled, the only design basis accident that could potentially result in an offsite radiological release at VY is the fuel handling accident, which is described in Chapter 6 of the VY Defueled Safety Analysis Report (DSAR). Based on the time that VY has been permanently shutdown, there is no longer any possibility of an offsite radiological release from a design basis accident that could exceed the limits established by the U.S. Environmental Protection Agency Protective Action Guidelines at the exclusion area boundary. The site-specific analysis that was performed for a postulated beyond-design-basis accident involving a complete loss of SFP water inventory shows that VY is already past the decay time (15.4 months after shutdown) when more than 10 hours would be available to take action to prevent the potential for a significant radiological release. With the significant reduction in radiological risk for a facility in decommissioning with significant fuel decay, the consequences of a cyber-attack are reduced.

In Reference 9, ENO submitted the VY Post-Shutdown Decommissioning Activities Report (PSDAR) pursuant to 10 CFR 50.82(a)(4), which included the schedule for the decommissioning period with spent fuel in wet storage. This period includes completion of preparations for the ISFSI and the transfer of all spent fuel from the SFP to the ISFSI. By Reference 10, ENO submitted an update to schedule information provided in the VY PSDAR, pursuant to 10 CFR 50.82(a)(7), to complete the transfer of all spent fuel from the SFP to the ISFSI when the criteria for transfer are met, including certain regulatory approvals. This is expected to be completed in late 2018.

Due to the permanent cessation of reactor operations and permanent defueling of the reactor, the number of critical digital assets (CDAs) has been reduced, and site assets that require cyber protection are primarily those associated with security, emergency preparedness functions, and those systems supporting operation of the SFP. The reduction in the number of digital computers and communication systems and networks has reduced the number of pathways for a cyber-attack during decommissioning.

The proposed extension would allow VY to forego mitigation of those CDAs that would no longer be required after all spent fuel has been transferred to the ISFSI prior to the time when the mitigations are required to be completed.

By Reference 11, ENO submitted a separate license amendment request for NRC approval of the proposed VY ISFSI physical security plan to be implemented after all spent fuel has been transferred to the ISFSI. Reference 11 included proposed changes to the VY RFOL license condition 3.G which are independent of the proposed change contained herein.

3.0 TECHNICAL EVALUATION

In Reference 5, the NRC provided criteria to be used for evaluation of a license amendment request to revise the CSP implementation schedule Milestone 8 date. In support of this request, below is a response to each of the eight evaluation criteria provided in Reference 5:

1. Identification of the specific requirement or requirements of the CSP that the licensee needs additional time to implement.

ENO requests that the VY CSP Milestone 8 full implementation schedule date be changed from December 15, 2017, to July 31, 2019. The specific requirement is: Cyber Security Plan, Section 3.1, "Analyzing Digital Computer Systems and Networks and Applying Cyber Security Controls." During the proposed extension period, ENO will continue to comply with the requirements of interim Milestones 1 through 7, which were completed by December 31, 2012.

2. Detailed justification that describes the reason additional time is required to implement the specific requirement or requirements identified.

By Reference 10, ENO submitted an update to schedule information provided in the VY PSDAR, pursuant to 10 CFR 50.82(a)(7), to complete the transfer of all spent fuel from the SFP to the ISFSI, when the criteria for transfer are met, including certain regulatory approvals. Proposed amendments to the HI-STORM 100 Certificate of Compliance No. 72-1014 are currently under review by the NRC. In parallel, VY is submitting requests for site-specific licensing actions. Completing the remaining Milestone 8 actions by December 15, 2017, is not considered a prudent use of ENO resources since a significant number of digital assets that have been identified as CDAs for the current VY configuration with spent fuel in the SFP and in the ISFSI will either no longer be required for significant safety, security, and emergency preparedness (SSEP) functions after the transfer to dry fuel storage is complete, or will be affected by changes associated with this transition. The CDAs associated with functions related to SFP operations will no longer be required, and consequently, the current CDAs associated with these functions will no longer be protected subject to the VY CSP after this transition. Similarly, the CDAs associated with the current VY physical security plan are proposed to be changed (by Reference 11) to a configuration supporting all fuel located in the ISFSI, and those CDAs associated with the physical

security plan in the current configuration supporting operation of the SFP will no longer be protected. As such, extending the remaining Milestone 8 actions until July 31, 2019, has no adverse effect on nuclear safety given that ENO is required to maintain the previously implemented actions for interim Milestones 1 through 7.

3. Proposed completion date for Milestone 8 consistent with the remaining scope of work to be conducted and the resources available.

The proposed completion date for Milestone 8 full implementation of CSP is July 31, 2019. By this date, the transfer of all spent fuel from the SFP to the ISFSI is expected to be completed, and associated changes to facility SSCs implemented. The extension will avoid diverting resources to assess and mitigate those CDAs which will be retired after the transfer of spent fuel to the ISFSI is complete, but not fully retired by the current Milestone 8 completion date. As discussed in the response to Criterion 2 above, implementing mitigation activities in order to meet the current Milestone 8 day, only to remove the associated CDAs from service shortly thereafter once all fuel is in dry storage, is not considered an effective use of ENO resources. Similar to recent requests for other facilities, ENO anticipates that a separate license amendment request may be submitted to remove the CSP license condition, either based on VY's certifications of permanent cessation of power operations and permanent removal of fuel from the reactor vessel and further supported by the significant decay time of the spent fuel (Reference 12), or alternatively after all spent fuel has been transferred to the ISFSI (References 13 and 14).

4. Evaluation of the Impact that the additional time to implement the requirements will have on the effectiveness of the overall cyber security program in the context of milestones already completed.

Cyber security protections provided by the completion and maintenance of interim Milestones 1 through 7 actions ensure that the program will continue to be effective in providing reasonable assurance that digital computer and communication systems and networks associated with safety and important-to-safety, security, and emergency preparedness (SSEP) functions are adequately protected against cyber-attacks, up to and including the design basis threat (DBT) described in 10 CFR 73.1. Most notably, safety-related, important-to-safety, and security CDAs will continue to be deterministically isolated from external networks; stringent control of portable media and mobile devices connected to CDAs will continue, including the use of stand-alone scanning kiosks and media; and implementation of technical cyber security controls and security officer observation for CDAs that support security functions. Additionally, although not required until Milestone 8, ENO has implemented procedures governing CDA configuration management, cyber security incident response and recovery, and cyber security training.

5. Description of the methodology for prioritizing completion of work for CDAs associated with significant SSEP consequences and with reactivity effects in the balance of plant.

Because CDAs are facility components, prioritization follows the established work management process that places the highest priority on apparent conditions adverse to quality in structure, system, and component (SSC) design function and related factors such as safety risk and nuclear defense-in-depth. Further, in regard to deterministic isolation and control of portable media and mobile devices (PMMD) for safety-related, important-to-safety, and security CDAs, maintenance of one-way or air-gapped configurations and implementation of control of PMMD remains high priority. This prioritization enabled timely completion of interim Milestones 3 and 4. High focus continues to be maintained on prompt attention to any emergent issue with CDAs that potentially challenge the established cyber protective barriers.

6. Discussion of the cyber security program performance up to the date of the license amendment request.

No compromise of SSEP function by cyber means has been identified. ENO Quality Assurance (QA) audits of the VY physical security program that included CSP review were conducted at VY in 2013, 2014 and 2015, and continue to be performed in accordance with 10 CFR 73.55(m), *Security program reviews*. The audits have identified no significant findings related to overall cyber security performance and effectiveness.

7. Discussion of cyber security issues pending in the CAP.

No cyber security issues that would constitute a threat to proper CDA function or that would call into question CSP effectiveness are currently pending in the corrective action program.

8. Discussion of modifications completed to support the cyber security program and a discussion of pending cyber security modifications.

Modifications completed include those required to deterministically isolate Level 3 and 4 CDAs, as required by Interim Milestone 3. No modifications are pending. As discussed in the response to Criterion 2, modifications associated with the transition to dry fuel storage are in progress to be implemented after all spent fuel has been transferred to the ISFSI, and the requested extension allows for implementation of these changes prior to the Milestone 8 implementation date, as revised.

This LAR includes the proposed change to the existing VY Renewed Facility Operating License condition 3.G "Security Plan," which references the license amendments for the approved CSP and Milestone implementation schedule (Attachments 2 and 3). The proposed revision to the CSP implementation schedule is provided in Attachment 4. The revised regulatory commitment for the change to the implementation schedule is provided in Attachment 5.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 73.54, "Protection of digital computer and communications systems and networks," establishes the requirements for licensees to maintain and implement a Cyber Security Program (CSP). This regulation specifically requires "...each licensee currently licensed to operate a nuclear power plant under part 50 of this chapter shall submit, as specified in § 50.4 and § 50.90 of this chapter, a cyber security plan that satisfies the requirements of this section for Commission review and approval." VY has an approved CSP; however, pursuant to 10 CFR 50.82(a)(2) the VY 10 CFR Part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel. Therefore, VY is no longer "a licensee currently licensed to operate a nuclear power plant."

When the final rule for 10 CFR 73.54 was issued in March 2009, neither ISFSI-only facilities nor other facilities that were in the process of decommissioning were required to comply with the cyber security requirements. The NRC specifically limited cyber security requirements to a "licensee currently licensed to operate a nuclear power plant under part 50." Therefore, the requirements specified in 10 CFR 73.54 should no longer apply to VY. This is consistent with NRC Interim Staff Guidance, NSIR/DSP-ISG-03, "Review of Security Exemptions/License Amendment Requests for Decommissioning Nuclear Power Plants," Table 1, which states "ISFSIs are spent fuel storage facilities, so the requirements under 10 CFR 73.55 that cite cybersecurity or protection of digital assets under 73.54 are not applicable to general licensed ISFSIs" (Reference 15).

License condition 3.G "Security Plan" requires VY to fully implement and maintain in effect all provisions of the Commission-approved CSP, including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). This license condition continues to apply to VY in decommissioning. Therefore, changes to the Commission-approved CSP and CSP implementation schedule are required to be submitted for NRC approval.

4.2 No Significant Hazards Consideration Determination

Entergy Nuclear Operations, Inc. (ENO) is requesting an amendment to the Vermont Yankee Nuclear Power Station (VY) Renewed Facility Operating License (RFOL) to revise license condition 3.G "Security Plan" as it relates to the Cyber Security Plan (CSP). This license condition requires VY to fully implement and maintain in effect all provisions of the Commission-approved CSP, including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p).

The current license condition reflects the CSP implementation schedule previously approved by the NRC, which provided a completion date of December 15, 2017, for Milestone 8. This amendment request includes a proposed change to a CSP implementation schedule milestone

date and a proposed revision to the VY RFOL to include the proposed amendment. Specifically, ENO is proposing a change to the Milestone 8 completion date.

ENO 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:

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

Response: No.

The proposed change to the CSP implementation schedule is administrative in nature. This proposed change does not alter accident analysis assumptions, add any initiators, or affect the function of facility systems or the manner in which systems are operated, maintained, modified, tested, or inspected. The proposed change does not require any facility modifications which affect the performance capability of the structures, systems, and components (SSCs) relied upon to mitigate the consequences of postulated accidents and has no impact on the probability or consequences of an accident previously evaluated.

Spent fuel at VY is stored in the SFP and in the ISFSI. In this configuration, the spectrum of possible accidents transients and accidents is significantly reduced compared to an operating nuclear power reactor. The design basis accident evaluated in VY Defueled Safety Analysis Report Chapter 6 is the fuel handling accident, which is predicated on spent fuel being stored in the SFP. Due to fuel decay since shutdown, the risk of an offsite radiological release is also significantly lower.

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

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

Response: No.

The proposed change to the CSP implementation schedule is administrative in nature. This proposed change does not alter accident analysis assumptions, add any initiators, or affect the function of facility systems or the manner in which systems are operated, maintained, modified, tested, or inspected. The proposed change does not require any facility modifications which affect the performance capability of the SSCs relied upon to mitigate the consequences of postulated accidents and does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

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

Response: No.

Plant safety margins are established through limiting conditions for operation, limiting safety system settings, and safety limits specified in the Technical Specifications. The proposed change to the CSP implementation schedule is administrative in nature. In addition, the milestone date delay for full implementation of the CSP has no substantive impact because other measures, including completing and maintaining interim Milestones 1 through 7, have been taken which provide adequate protection during this period of time. Because there is no change to established safety margins as a result of this proposed change, no significant reduction in a margin of safety is involved.

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

Based on the above, ENO concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

4.3 Precedents

The NRC has previously approved and issued license amendment requests that have addressed the criteria in Reference 5 for Milestone 8 implementation date extensions for nuclear power plants, including facilities in decommissioning. This proposed amendment uses the same approach as these. This request is similar to a recently approved request from San Onofre Nuclear Generation Station, Units 2 and 3, to extend the Milestone 8 date beyond the date when transition to an ISFSI configuration is expected to be completed (Reference 16).

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 CONSIDERATIONS

The proposed amendment provides a change to the VY CSP implementation schedule, and relates solely to safeguards matters and does not involve any significant construction impacts.

The proposed amendment meets the eligibility criterion for a categorical exclusion set forth in 10 CFR 51.22(c)(12) as an administrative change. Therefore, pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 REFERENCES

1. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment Re: License Amendment Request – Cyber Security Plan (TAC No. ME4296)*, NVEY 11-056, dated July 20, 2011 (ML11152A013)
2. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule Milestone (TAC No. ME9012)*, NVEY 12-075, dated November 13, 2012 (ML12261A292)
3. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule (TAC No. MF3306)*, NVEY 14-082, dated November 12, 2014 (ML14206A710)
4. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station - Issuance of Amendment to Renewed Facility Operating License Re: Cyber Security Plan Implementation Schedule (CAC No. MF6403)*, NVEY 16-009, dated March 14, 2016 (ML16014A169)
5. NRC Internal Memorandum to Barry Westreich from Russell Felts, *Review Criteria for 10 CFR 73.54, Cyber Security Implementation Schedule Milestone 8 License Amendment Requests*, dated October 24, 2013 (ML13295A467)
6. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Certifications of Permanent Cessation of Power Operations and Permanent Removal of Fuel from the Reactor Vessel*, BVY 15-001, dated January 12, 2015 (ML15013A426)
7. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Request for Exemptions from Portions of 10 CFR 50.47 and 10 CFR 50, Appendix E*, BVY 14-009, dated March 14, 2014 (ML14080A141)
8. Letter, USNRC to Entergy Nuclear Operations, Inc., *Vermont Yankee Nuclear Power Station – Exemptions from Certain Emergency Planning Requirements and Related Safety Evaluation (CAC No. MF3614)*, NVEY 15-104, dated December 10, 2015 (ML15180A054)
9. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Post Shutdown Decommissioning Activities Report*, BVY 14-078, dated December 19, 2014 (ML14357A110)
10. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Notification of Schedule Change for Dry Fuel Loading Campaign*, BVY 17-013, dated April 12, 2017 (ML17104A050)
11. Letter, Entergy Nuclear Operations, Inc. to USNRC, *Independent Spent Fuel Storage Installation Physical Security Plan, Revision 0*, BVY 17-003, dated March 29, 2017

12. Letter, Duke Energy to USNRC, *Crystal River 3 – License Amendment Request #324, Revision 0, Cyber Security Plan License Condition Removal*, dated December 9, 2016 (ML16348A187)
13. Letter, Dominion Energy Kewaunee, Inc. to USNRC, *Request for Approval of the Kewaunee Power Station Security Plan*, dated October 15, 2015 (ML15294A072)
14. Letter, Duke Energy to USNRC, *Crystal River 3 – License Amendment Request #321, Revision 0, ISFSI Only Physical Security Plan*, dated May 24, 2016 (ML16152A045)
15. NRC Interim Staff Guidance, NSIR/DSP-ISG-03, “Review of Security Exemptions/ License Amendment Requests for Decommissioning Nuclear Power Plants,” September 28, 2015 (ML15106A737)
16. Letter, USNRC to Southern California Edison Company, *San Onofre Nuclear Generating Station, Units 2 and 3 - Issuance of Amendments to Revise the Cyber Security Plan Milestone 8 Completion Date in the Facility Operating Licenses (CAC Nos. L53132 and L53133)*, dated January 23, 2017 (ML16252A207)

Attachment 2

Proposed Operating License Changes (mark-up)

(3 pages including Cover Sheet)

NOTE: A separate License Transfer Application has been submitted to transfer ownership of the facility (BVY 17-005).

- 3 -

- D. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components.
 - E. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility.
3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:
- A. This paragraph deleted by Amendment No. 263.
 - B. Technical Specifications
The Technical Specifications contained in Appendix A, as revised through Amendment No. ~~265~~, are hereby incorporated in the license. Entergy Nuclear Operations, Inc. shall operate the facility in accordance with the Technical Specifications.
 - C. Reports
Entergy Nuclear Operations, Inc. shall make reports in accordance with the requirements of the Technical Specifications.
 - D. This paragraph deleted by Amendment No. 226.
 - E. Environmental Conditions
Pursuant to the Initial Decision of the presiding Atomic Safety and Licensing Board issued February 27, 1973, the following conditions for the protection of the environment are incorporated herein:
 - 1. This paragraph deleted by Amendment No. 206, October 22, 2001.
 - 2. This paragraph deleted by Amendment 131, 10/07/91.

NOTE: Changes to the first paragraph are proposed in independently submitted license amendment request BVY 17-003.

G. Security Plan

Entergy Nuclear Operations, Inc. shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans¹, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Vermont Yankee Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 0," submitted by letter dated October 18, 2004, as supplemented by letter dated May 16, 2006.

Entergy Nuclear Operations, Inc. shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). Entergy Nuclear Operations, Inc. CSP was approved by License Amendment No. 247, as supplemented by changes approved by License Amendment Nos. 251, 259, and 265.

, and XXX

H. This paragraph deleted by Amendment No. 107, 8/25/88.

I. This paragraph deleted by Amendment No. 131, 10/7/91.

J. License Transfer Conditions

On the closing date of the transfer of Vermont Yankee Nuclear Power Station (Vermont Yankee), Entergy Nuclear Vermont Yankee, LLC shall obtain from Vermont Yankee Nuclear Power Corporation all of the accumulated decommissioning trust funds for the facility, and ensure the deposit of such funds into a decommissioning trust for Vermont Yankee established by Entergy Nuclear Vermont Yankee, LLC. If the amount of such funds does not meet or exceed the minimum amount required for the facility pursuant to 10 CFR 50.75, Entergy Nuclear Vermont Yankee, LLC shall at such time deposit additional funds into the trust and/or obtain a parent company guarantee (to be updated annually) and/or obtain a surety pursuant to 10 CFR 50.75(e)(1)(iii) in a form acceptable to the NRC and in an amount or amounts which, when combined with the decommissioning trust funds for the facility that have been obtained and deposited as required above, equals

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

Attachment 3

Revised Operating License Pages (retyped)

(3 pages including Cover Sheet)

- D. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components.
 - E. Entergy Nuclear Operations, Inc., pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility.
3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Section 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:
- A. This paragraph deleted by Amendment No. 263.
 - B. Technical Specifications
The Technical Specifications contained in Appendix A, as revised through Amendment No. XXX, are hereby incorporated in the license. Entergy Nuclear Operations, Inc. shall operate the facility in accordance with the Technical Specifications.
 - C. Reports
Entergy Nuclear Operations, Inc. shall make reports in accordance with the requirements of the Technical Specifications.
 - D. This paragraph deleted by Amendment No. 226.
 - E. Environmental Conditions
Pursuant to the Initial Decision of the presiding Atomic Safety and Licensing Board issued February 27, 1973, the following conditions for the protection of the environment are incorporated herein:
 - 1. This paragraph deleted by Amendment No. 206, October 22, 2001.
 - 2. This paragraph deleted by Amendment 131, 10/07/91.

G. Security Plan

Entergy Nuclear Operations, Inc. shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans¹, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Vermont Yankee Nuclear Power Station Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, Revision 0," submitted by letter dated October 18, 2004, as supplemented by letter dated May 16, 2006.

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

Attachment 4

Revised Cyber Security Plan Implementation Schedule

Revised Cyber Security Plan Implementation Schedule

#	Implementation Milestone	Completion Date	Basis
8	Full implementation of the Vermont Yankee Nuclear Power Station Cyber Security Plan for all safety, security, and emergency preparedness (SSEP) functions will be achieved.	July 31, 2019	By the completion date, the Vermont Yankee Cyber Security Plan will be fully implemented for all SSEP functions in accordance with 10 CFR 73.54. This date also bounds the completion of all individual asset security control design remediation actions.

Attachment 5

Revised Regulatory Commitment

Revised Regulatory Commitment

The following table identifies those actions committed to by Entergy Nuclear Operations, Inc. in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check One)		SCHEDULED COMPLETION DATE (If Required)
	ONE- TIME ACTION	CONTINUING COMPLIANCE	
Full implementation of the Vermont Yankee Nuclear Power Station Cyber Security Plan for all safety, security, and emergency preparedness functions will be achieved.	X		July 31, 2019