Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
Equipment/Facility/Other: Vermont Yankee	
Title: Emergency Plan & Emergency Plan Implementing Procedures (Listed below under Part I)	

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

On 9/23/13, Entergy Vermont Yankee notified the NRC by letter BVY 13-079 of the decision to permanently cease power operations in the 4th quarter of 2014.This letter acknowledges that the Vermont Yankee 10 CFR 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel after the end of the operating cycle.

The changes to the VY Emergency Plan reflect the permanently defueled condition of VY. Changes involving a reduction in the minimum on-shift and emergency response organization (ERO) staffing were submitted to the NRC for review and approval under a license amendment (Ref: BVY 14-018). These changes were approved by the NRC upon issuance of License Amendment 261. (Change summary attached)

The Emergency Plan and the following documents have been revised to incorporate the approved License Amendment for the SAFSTOR Emergency Plan and Emergency Response Organization (ERO). See attached change summaries for each document.

- Cancel V-EN-TQ-110, Emergency Response Organization, Rev 11 and V-EN-TQ-110-01, Fleet Eplan Training Course Summary, Rev 2 to the SAFSTOR Emergency Planning Training Program Description
- EPOP-TSC-3542, Operation of the Technical Support Center (TSC), Rev 02
- EPOP-OSC-3544, Operation of the Operations Support Center (OSC), Rev 01
- EPOP-EOF-3546, Emergency Operations Facility/Recovery Center (EOF/RC), Rev 03
- EPOP-JIC-3550, Activation and Operation of the Joint Information Center, Rev 01
- EPOP-3551, Operation of the Joint Information Center when the Alternate Joint Information Center is Activated, Rev 01
- EPOP-3552, Activation and Operation of the Alternate Joint Information Center, Rev 01
- V-EN-EP-801, Emergency Response Organization
- AP 0894, Staffing Limits

Part II. Activity Previously Reviewed?
Is this activity fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

☒YES 50.54(q)(3) Evaluation is NOT required. Enter justification below and complete Part VI.	☐ NO Continue to next part

Justification:

Changes involving a reduction in the minimum on-shift and emergency response organization (ERO) staffing were submitted to the NRC for review and approval under a license amendment (Ref: BVY 14-018). These changes were approved by the NRC upon issuance of License Amendment 261. No further evaluation required.

☐ Bounding document attached (optional) References: BVY 13-079; BVY 14-018

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
Equipment/Facility/Other: Vermont Yankee	
Title: Emergency Plan & Emergency Plan Implementing Procedures (Listed below under Part I)	

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity.(Refer to EN-LI-100)

NOTE: For example, when a design change is the proposed activity, consequential actions may include changes to other documents which have a different change control process and are **NOT** to be included in this 50.54(q)(3) Screening.

APPLICABILITY CONCLUSION

☐ If there are no controlling change processes, continue the 50.54(q)(3) Screening.
☐ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.
☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

CONTROLLING CHANGE PROCESSES
10CFR50.54(q)

Part IV. Editorial Change Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? **Justification:**	☐YES 50.54(q)(3) Evaluation is NOT required. Enter justification and complete Part VI.	☒ NO Continue to next part

Part V. Emergency Planning Element/Function Screen (Associated 10 CFR 50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?

1. Responsibility for emergency response is assigned. [1]	☐
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	☐
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	☐
4. The process for timely augmentation of onshift staff is established and maintained. [2]	☐
5. Arrangements for requesting and using off site assistance have been made. [3]	☐
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	☐
7. A standard scheme of emergency classification and action levels is in use. [4]	☐
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications. [5]	☐
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	☐
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	☐
11. Systems are established for prompt communication among principal emergency response organizations. [6]	☐

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	Revision: Various
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12. Systems are established for prompt communication to emergency response personnel. [6]	☐
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	☐
14. Coordinated dissemination of public information during emergencies is established. [7]	☐
15. Adequate facilities are maintained to support emergency response. [8]	☐
16. Adequate equipment is maintained to support emergency response. [8]	☐
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	☐
18. A range of public PARs is available for implementation during emergencies. [10]	☐
19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	☐
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.[10]	☐
21. The resources for controlling radiological exposures for emergency workers are established. [11]	☐
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	☐
23. Plans for recovery and reentry are developed. [13]	☐
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	☐
25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	☐
26. Identified weaknesses are corrected. [14]	☐
27. Training is provided to emergency responders. [15]	☐
28. Responsibility for emergency plan development and review is established. [16]	☐
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	☐

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
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Title: Emergency Plan & Emergency Plan Implementing Procedures (Listed below under Part I)	

APPLICABILITY CONCLUSION

❑ If no Part V criteria are checked, a 50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.

❑ If any Part V criteria are checked, complete Part VI and perform a 50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

Part VI. Signatures:

Preparer Name (Print) Justine Anderson	Preparer Signature Janderson	Date: 2/4/15
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Tom Sowdon Nuclear EP Project Manager	Reviewer Signature Thomas L Sowdon	Date: 2/4/15
Approver Name (Print) MP McKenney EP manager or designee	Approver Signature MP McKenney	Date: 2/4/15

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
Equipment/Facility/Other: Vermont Yankee	
Title: Emergency Plan & Emergency Plan Implementing Procedures (Listed below under Part I)	

Emergency Planning Training Program Description

- Developed training for new SAFSTOR organization to match the staffing changes in BVY 14-018

EPOP-TSC-3542, Operation of the Technical Support Center (TSC), Rev 02
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- TSC Manager
- Reactor Engineer
- Manpower and Planning Liaison
- TSC Communicator
- TSC Engineer
- IT Specialist

EPOP-OSC-3544, Operation of the Operations Support Center (OSC), Rev 01
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- Operations Support
- I&C/Electrical Coordinator
- Mechanical Coordinator
- Rad/Chem Coordinator
- Work Control Coordinator
- OSC Log Keeper

EPOP-EOF-3546, Emergency Operations Facility/Recovery Center (EOF/RC), Rev 03
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- EOF Manager
- EOF Communicator
- Public Information Liaison
- Emergency Planning Coordinator
- IT Specialist
- EOF Log Keeper

EPOP-JIC-3550, Activation and Operation of the Joint Information Center, Rev 01
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- Information Coordinator
- Press Release Writer
- Logistics Coordinator
- Technical Assistant
- JIC Log Keeper
- Inquiry Response Coordinator
- Media Monitor/Status Phone Recorder
- Credentialing

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
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EPOP-3551, Operation of the Joint Information Center when the Alternate Joint Information Center is Activated, Rev 01
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- Information Coordinator
- Press Release Writer
- Logistics Coordinator
- Technical Assistant
- Inquiry Response Coordinator
- Media Monitor/Status Phone Recorder

EPOP-3552, Activation and Operation of the Alternate Joint Information Center, Rev 01
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- Logistics Coordinator
- Credentialing
- JIC Log Keeper

V-EN-EP-801, Emergency Response Organization
Updated procedure to match the post-shutdown Emergency Response Organization, including deletion of the following positions:

- TSC Manager
- Reactor Engineer
- Manpower and Planning Liaison
- TSC Communicator
- TSC Engineer
- IT Specialist
- Operations Support
- I&C/Electrical Coordinator
- Mechanical Coordinator
- Rad/Chem Coordinator
- Work Control Coordinator
- OSC Log Keeper
- EOF Manager
- EOF Communicator
- Public Information Liaison
- Emergency Planning Coordinator
- IT Specialist
- EOF Log Keeper
- Information Coordinator
- Press Release Writer
- Logistics Coordinator
- Technical Assistant
- JIC Log Keeper
- Inquiry Response Coordinator
- Media Monitor/Status Phone Recorder
- Credentialing

Removed all information pertaining to other Entergy sites

Procedure/Document Number: Emergency Plan & Emergency Plan Implementing Procedures	**Revision: Various**
Equipment/Facility/Other: Vermont Yankee	
Title: Emergency Plan & Emergency Plan Implementing Procedures (Listed below under Part I)	

AP 0894, Staffing Limits
Revised on shift staffing to match the License Amendment 261 from the NRC

I. OVERVIEW **PAD Rev. #: 0**

Facility: Vermont Yankee

Proposed Activity / Document: Emergency Plan **Change/Rev. #:** 55

Description of Proposed Activity:

The proposed changes to the Emergency Plan are shown in a table following section VIII.

This PAD covers the changes to the Emergency Plan approved by the NRC in License Amendment 261 (Ref: NVY 15-010) to reduce staffing for the Emergency Response Organization. The changes to staffing levels approved by License Amendment 261 include:

- Table 8.4, “Minimum Staffing Requirements for the ENVY ERO”
- Table 8.3, "A Summary of Off-site Coordination"
- Figure 8.2, "VY Emergency Management Organization"
- Figure 8.3, "Technical Support Center Emergency Organization"
- Figure 8.4, "Operations Support Center Emergency Organization"
- Figure 8.5, "Emergency Operations Facility Organization"
- Figure 8.7, "Joint Information Center Organization"
- Table 9.1, "Vermont Yankee Emergency Response"

All other changes to reflect a permanently defueled facility were performed under the 10CFR50.54(q) process.

II. DOCUMENT REVIEW

Provide the requested information for each item below.

1. For documents available electronically:

a. List search engine or documents searched, and keywords used:

Documents Searched: UFSAR, Emergency Plan
Keywords used: InForm, Notification System, Utility Microwave, Emergency Response Data System, ERDS, Medical, URI, METPAC, Dose Assessment

b. List relevant sections of controlled electronic documents reviewed:

UFSAR – Section 7.15, Process Computer System; Section 13.6, Emergency Plan
Emergency Plan – Entire document

2. Documents reviewed manually (hardcopy):

Emergency Plan: Figure 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 8.1, 8.2, 8.3, 8.4, 8.5, 8.7, 9.1, 10.1, 10.2 & 10.3

3. For those documents that are not reviewed either electronically or manually, use the specific questions provided in Sections III and IV of Attachment 9.2 of EN-LI-100 as needed. Document below the extent to which the Attachment 9.2 questions were used.

For LBDs not searched electronically or manually the questions in Attachment 9.2 were reviewed and no LBD changes were identified.

III. PROCESS REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following processes? Associated regulations and procedures are identified with each process below.

PROCESS (Regulations / Procedures)	YES	NO	REVIEW RESULTS
Chemistry / Effluents	☐	☒	
Radwaste / Process Control Program (PCP) (EN-RW-105 or contact the Radiation Protection Dept.)	☐	☒	
Radiation Protection / ALARA (10 CFR 20 / EN-RP-110 or contact the Radiation Protection Dept.)	☐	☒	
Inservice Inspection Program (10 CFR 50.55a / EN-DC-120, -351)	☐	☒	
Inservice Testing Program (10 CFR 50.55a / EN-DC-332)	☐	☒	
Maintenance Rule Program (10 CFR 50.65 / EN-DC-203, -204, -205, -206, -207)	☐	☒	
Containment Leakage Rate Testing (Appendix J) Program (10 CFR 50 Appendix J / EN-DC-334)	☐	☒	

PROCESS (Regulations/Procedures)	YES	NO	N/A	REVIEW RESULTS
Flex Program (NRC Order EA-12-49/FLEX Program) (10CFR50.59 / Contact Design Engineering) NOTE: The date for individual Site Implementation of the FLEX Program is not the same for all sites. All sites are required to implement a FLEX program per NRC Order EA-12-49. N/A may be used for this process by sites that have not completed implementation of a FLEX program. Contact Design Engineering if further assistance is needed.	☐	☐	☒	

IF any box is checked "Yes," THEN contact the appropriate department to ensure that the proposed change is acceptable and document the results in the REVIEW RESULTS column.

IV. LICENSING BASIS DOCUMENT REVIEW

Does the proposed activity affect, invalidate, or render incorrect, OR have the potential to affect, invalidate, or render incorrect, information contained in any of the following Licensing Basis Document(s)? Associated regulations and procedures are identified with each Licensing Basis Document below.

LICENSING BASIS DOCUMENTS (Regulations / Procedures)	YES	NO	REVIEW RESULTS OR SECTIONS AFFECTED OR LBDCR #
Quality Assurance Program Manual (QAPM) (10 CFR 50.54(a) / EN-QV-104)	☐	☒	
Fire Protection Program (FPP) [includes the Fire Safety Analysis/Fire Hazards Analysis (FSA/FHA)] OL Condition, 10 CFR 50.48 / EN-DC-128)	☐	☒	
Emergency Plan (10 CFR 50.54(q) / EN-EP-305)	☒	☐	Screened IAW EN-EP-305
Environmental Protection Plan (Appendix B of the OL, Environmental Evaluation / EN-EV-115, EN-EV-117, EN-LI-103)	☐	☒	No EPP at VY
Security Plan and Cyber Security Plan [10 CFR 50.54(p) / EN-NS-210 or contact the site Security / IT Dept.]	☐	☒	
Operating License (OL) / Technical Specifications (TS) (10 CFR 50.90 / EN-LI-103)	☐*	☒	
TS Bases (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☐	☒	
Technical Requirements Manual (TRM) (including TRM Bases) (10 CFR 50.59 / EN-LI-100 / EN-LI-101)	☐	☒	
Core Operating Limits Report (COLR), and Pressure and Temperature Limits Report (PTLR) (TS Administrative Controls, EN-LI-113, EN-LI-100, EN-LI-101)	☐	☒	
Offsite Dose Calculation Manual (ODCM) (TS Administrative Controls or 10 CFR 50.59 / EN-LI-113 or EN-LI-100 / EN-LI-101)	☐	☒	
Updated Final Safety Analysis Report (UFSAR) (10 CFR 50.71(e) / EN-LI-113, EN-LI-100, EN-LI-101)	☒	☐	UFSAR markups to reflect termination of the Emergency Response Data System have been submitted to Licensing
Storage Cask Certificate of Compliance (10 CFR 72.244 / EN-LI-113)	☐*	☒	
Cask FSAR (CFSAR) (including the CTS Bases) (10 CFR 72.70 or 72.248 / EN-LI-113, EN-LI-100,EN-LI-112)	☐	☒	
10 CFR 72.212 Evaluation Report (212 Report) (10 CFR 72.48 / EN-LI-100, EN-LI-112)	☐	☒	
NRC Orders (10 CFR 50.90 / EN-LI-103 or as directed by the Order)	☐*	☒	
NRC Commitments and Obligations (EN-LI-110)	☐*	☒	
Site Specific CFR Exemption (10 CFR 50.12, 10 CFR 55.11, 10 CFR 55.13, 10 CFR 72.7)	☐*	☒	

*Contact the site Regulatory Assurance Department if needed.

IF any box is checked "Yes," THEN ensure that any required regulatory reviews are performed in accordance with the referenced procedures. Prepare an LBDCR per procedure EN-LI-113, as required, if a LBD is to be changed, and document any affected sections or the LBDCR #. Briefly discuss how the LBD is affected in Section VII.A.

V. 10 CFR 50.59 / 10 CFR 72.48 APPLICABILITY

Can the proposed activity be dispositioned by one of the following criteria? Check the appropriate box (if any).

☐	**An approved, valid 50.59/72.48 Evaluation covering associated aspects of the proposed activity already exists. Reference 50.59/72.48 Evaluation # _____ (if applicable) or attach documentation. Verify the previous 50.59/72.48 Evaluation remains valid.**
☒	**The NRC has approved the proposed activity or portions thereof or a license amendment being reviewed by the NRC addresses the proposed activity. Reference the approval document: Licensing Amendment 261**
☒	**The proposed activity is controlled by one or more specific regulations.** **Examples of programs controlled by specific regulations are:** • **Maintenance Rule (50.65) (EN-DC-203)** • **Quality Assurance Program (10 CFR 50 Appendix B) (EN-QV-104)** • **Security Plan [50.54(p)] (EN-NS-210)** • **Emergency Plan [50.54(q)] (EN-EP-305)** • **Fire Protection Program (operating license condition)** • **Inservice Inspection Program (50.55a) (EN-DC-351)** • **Inservice Testing Program (50.55a) (EN-EC-332** **See NEI 96-07 Section 4.1 for additional guidance on specific regulations.** **Reference the controlling specific regulation(s): 10CFR50.54(q)**

IF the entire proposed activity can be dispositioned by the criteria in Section V, THEN 50.59 and 72.48 Screenings are not required. Proceed to Section VII and provide basis for conclusion in Section VII.A.

Otherwise, continue to Section VI to perform a 50.59 and/or 72.48 Screening, or perform a 50.59 and/or 72.48 Evaluation in accordance with EN-LI-101 and/or EN-LI-112.

Changes to the IPEC Unit 1 Decommissioning Plan are to be evaluated in accordance with the 50.59 process, as allowed by the NRC in a letter to IPEC dated January 31, 1996. [Merlin Document ID: RA-96-014]

VI. 50.59 / 72.48 SCREENING REVIEW (All proposed activities should be evaluated to determine if 50.59, 72.48 or both apply, check the boxes as appropriate)

VI.A 50.59 SCREENING

☐	**10 CFR 50.59 applies and screening criteria are met. Document the basis for screening criteria met in section VI. C, then proceed to section VII.** [10 CFR 50.59(c)(1)] **The proposed activity meets all of the following criteria:** • **Does not adversely affect the design function of an SSC as described in the UFSAR; AND** • **Does not adversely affect a method of performing or controlling a design function of an SSC as described in the UFSAR; AND** • **Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the UFSAR; AND** • **Does not involve a test or experiment not described in the UFSAR.**
☐	**IF 10 CFR 50.59 applies, but the proposed activity does not meet the applicable criteria, THEN perform a 50.59 Evaluation in accordance with EN-LI-101, attach a copy of the Evaluation to this form, and proceed to Section VII.**

VI.B 72.48 SCREENING

☐	**10 CFR 72.48 Screening criteria are met.** [10 CFR 72.48(c)(1)] **(Applicable to sites with an ISFSI)** **The proposed activity meets all of the following criteria:** • **Does not adversely affect the design function of an SSC as described in the CFSAR; AND** • **Does not adversely affect a method of performing or controlling a design function of an SSC as described in the CFSAR; AND** • **Does not adversely affect a method of evaluation that demonstrates intended design function(s) of an SSC will be accomplished as described in the CFSAR; AND** • **Does not involve a test or experiment not described in the CFSAR.**
☐	**IF 10 CFR 72.48 applies, but the proposed activity does not meet the applicable criteria, THEN perform a 72.48 Evaluation in accordance with EN-LI-112, attach a copy of the Evaluation to this form, and proceed to Section VII.**

VI.B BASIS

Provide a clear, concise basis for determining the proposed activity may be screened out such that a third-party reviewer can reach the same conclusions. Identify the relevant design function, as appropriate. Refer to NEI 96-07 Section 4.2 for guidance. Refer to NEI 12-06 Section 11.4, regarding FLEX. Provide supporting documentation or references as appropriate.

VII. REGULATORY REVIEW SUMMARY

VII.A GENERAL REVIEW COMMENTS (Provide pertinent review details and basis for conclusions if not addressed elsewhere in form.)

The changes to the VY Emergency Plan reflect the permanently defueled condition of VY. Changes involving a reduction in the minimum on-shift and emergency response organization (ERO) staffing were submitted to the NRC for review and approval under a license amendment (Ref: BVY 14-018). These changes were approved by the NRC upon issuance of License Amendment 261. No additional evaluation is required for these changes.

Other changes to the Emergency Plan to reflect the permanently defueled condition are evaluated pursuant to 10 CFR 50.54(q) in accordance with EN-EP-305.

VII.B CONCLUSIONS

1.	**Is a change to an LBD being initiated?**	☒	**Yes**
	IF "Yes," THEN enter the appropriate change control process and include this form with the change package. (LBDCR LIC 14-14)	☐	**No**
2.	**Is a 10 CFR 50.59 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 50.59 Evaluation in accordance with EN-LI-101 and attach a copy to the change activity.	☒	**No**
3.	**Is a 10 CFR 72.48 Evaluation required?**	☐	**Yes**
	IF "Yes," THEN complete a 72.48 Evaluation in accordance with EN-LI-112 and attach a copy to the change activity.	☒	**No**

VIII. SIGNATURES [1]

Preparer: Justine Anderson/ /ENVY/ Eplan/ 1/16/15

Name (print) / Signature / Company / Department / Date

Reviewer: Phil Couture/ Approved per telecon /ENVY/ Licensing/ 2/4/15

Name (print) / Signature / Company / Department / Date

Process Applicability Exclusion

Site Procedure Champion or Owner: N/A

Name (print) / Signature / Company / Department / Date

Upon completion, forward this PAD form to the appropriate organization for record storage. If the PAD form is part of a process that requires transmittal of documentation, including PAD forms, for record storage, then the PAD form need not be forwarded separately.

[1] **The printed name, company, department, and date must be included on the form. Signatures may be obtained via electronic processes (e.g., PCRS, ER processes, Asset Suite signature), manual methods (e.g., ink signature), e-mail, or telecommunication. If using an e-mail, attach it to this form.**

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Table of Contents	--	Updated page numbers and Section headings to reflect changes described below, including updated page numbers and deletion of Section 6.2.5 (Post Accident Sampling) and Section 7.10 (Emergency Response Data System).	Editorial revision to reflect changes described below, including updated page numbers and deletion of Section 6.2.5 (Post Accident Sampling) and Section 7.10 (Emergency Response Data System).
Table of Contents – Appendices	Appendix C Initial Offsite Dose Rate Estimate	(Deleted)	VY will no longer be an operating nuclear power plant. Appendix C is no longer applicable because it is based on the isotopic mix for a Loss of Coolant Accident (LOCA).
Table of Contents – List of Figures	Figure 8.1 Normal On-Shift Emergency Organization	Figure 8.1 Defueled On-Shift Emergency Organization	VY will no longer be an operating nuclear power plant. The title change reflects the permanently defueled organizational structure.
Table of Contents – List of Figures	Figure 8.2 Vermont Yankee Emergency Management Organization	Figure 8.2 Vermont Yankee Defueled Emergency Management Organization	VY will no longer be an operating nuclear power plant. The title change reflects the permanently defueled organizational structure.
Table of Contents – List of Figures	Figure 8.3 Technical Support Center Emergency Organization	Figure 8.3 Defueled Technical Support Center Emergency Organization	VY will no longer be an operating nuclear power plant. The title change reflects the permanently defueled organizational

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			structure.
Table of Contents – List of Figures	Figure 8.4 Operations Support Center Emergency Organization	(Deleted)	ERO Staffing changes result in one remaining OSC position (OSC Manager) illustrated on the figure. A figure is no longer necessary to describe the OSC organization.
Table of Contents – List of Figures	Figure 8.5 Emergency Operations Facility Organization	Figure 8.5 Defueled Emergency Operations Facility Organization	VY will no longer be an operating nuclear power plant. The title change reflects the permanently defueled organizational structure.
Table of Contents – List of Figures	Figure 8.7 Joint Information Center Organization	Figure 8.7 Defueled Joint Information Center Organization	VY will no longer be an operating nuclear power plant. The title change reflects the permanently defueled organizational structure.
Table of Contents – List of Figures	Figure 10.1 Vermont Yankee Emergency Dose Rate Nomogram	(Deleted)	VY will no longer be an operating nuclear power plant. Figure 10.1 is no longer applicable because it is based on the isotopic mix for a LOCA.
Section 2.0 – Definition of Alert	**Alert** – Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel	**Alert** – Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel	Editorial revision to reflect definition in NEI 99-01, Rev. 5

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.	or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.	
Section 2.0 – Definition of Assessment Actions	**Assessment Actions** – Those actions which are take to effectively define the emergency situation necessary for decisions on specific emergency measures.	**Assessment Actions** – Those actions which are taken to effectively define the emergency situation necessary for decisions on specific emergency measures.	Editorial revision to correct grammatical error
Section 2.0 – Definition of General Emergency	**General Emergency** – Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.	**General Emergency** – Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.	Editorial revision to reflect definition in NEI 99-01, Rev. 5
Section 2.0 – Definition of Hostile Action	**Hostile Action** – An act toward an NPP or its personnel that includes the use of violent force to destroy equipment, takes hostages, and/or intimidates the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other	**Hostile Action** – An act toward an NPP or its personnel that includes the use of violent force to destroy equipment, takes hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other	Editorial revision to reflect definition in NEI 99-01, Rev. 5

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	devices used to deliver destructive force. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities, (e.g., violent acts between individuals in the owner controlled area).	devices used to deliver destructive force. Other acts that satisfy the overall intent may be included. HOSTILE ACTION should not be construed to include acts of civil disobedience or felonious acts that are not part of a concerted attack on the NPP. Non-terrorism-based EALs should be used to address such activities, (e.g., violent acts between individuals in the owner controlled area).	
Section 2.0 – Definition of Notification of Unusual Event	**Notification of Unusual Event** – Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	**Notification of Unusual Event** – Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	Editorial revision to reflect definition in NEI 99-01, Rev. 5
Section 2.0 – Definition of Site Area Emergency	**Site Area Emergency** – Events are in process or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that	**Site Area Emergency** – Events are in progress or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that	Editorial revision to reflect definition in NEI 99-01, Rev. 5

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	could lead to the likely failure of or; (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.	could lead to the likely failure of or; (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.	
Section 3.2 – 1st Paragraph, Item 5	5) Notify state authorities in Vermont, New Hampshire and Massachusetts using the Emergency Notification System.	5) Notify state authorities in Vermont, New Hampshire and Massachusetts using the InForm Notification System.	InForm added to the Emergency Plan in Rev. 54.
Section 3.2 – 1st Paragraph, Item 7	7) Use the emergency notification system to notify appropriate personnel as set forth in Figure 9.1 and Table 9.1.	7) Use the notification plan to notify appropriate personnel as set forth in Figure 9.1 and Table 9.1.	The Emergency Notification System is a formal system used to notify the NRC during an emergency. The generic use of “emergency notification system” in Step 7 can be confusing and is meant only to direct the communicator to use the notification plan set forth in Figure 9.1 and Table 9.1 of the Emergency Plan and not the Emergency Notification System. Figure 9.1 is entitled “Notification Plan” and identifies the methods used to notify various offsite agencies.
Section 4.1	Vermont Yankee Nuclear Power Station is located on the west bank of the Connecticut River	Vermont Yankee Nuclear Power Station is located on the west bank of the Connecticut River	VY will no longer be an operating nuclear power plant. The Site Description

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	immediately upstream of the Vernon Hydrostation, in the town of Vernon, Vermont. The Vermont Yankee Nuclear Power Station is a boiling water reactor having a thermal rated power of 1912 MWt. The station, shown in Figure 4.1, is located on about 125 acres in Windham County, and is owned by Entergy, with the exception of a narrow strip of land between the Connecticut River and the Vermont Yankee property for which it has perpetual rights and easements from the owner, New England Power Company.	immediately upstream of the Vernon Hydrostation, in the town of Vernon, Vermont. The Vermont Yankee Nuclear Power Station ceased power operations and is permanently defueled in accordance with 10 CFR 50.82(a)(1)(i) and (ii). The station, shown in Figure 4.1, is located on about 125 acres in Windham County, and is owned by Entergy, with the exception of a narrow strip of land between the Connecticut River and the Vermont Yankee property for which it has perpetual rights and easements from the owner, New England Power Company. On January 12, 2015, ENO submitted a certification that a determination to permanently cease power operations was made on December 29, 2014, pursuant to 10 CFR 50.82(a)(1)(i). ENO has submitted written certification to the NRC, in accordance with 10 CFR 50.82(a)(1) that meets the requirements of 10 CFR 50.4(b)(9) certifying that fuel has been permanently removed from the reactor vessel and placed in the Spent Fuel Pool. Upon docketing of these certifications, the 10 CFR Part 50 license for	has been revised to indicate the permanently shutdown and defueled condition.

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		VY no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel, as specified in 10 CFR 50.82(a)(2). With irradiated fuel being stored in the Spent Fuel Pool and the ISFSI, the reactor, reactor coolant system and secondary system are no longer in operation and have no function related to the storage of the irradiated fuel. Therefore, the postulated accidents involving failure or malfunction of the reactor and reactor coolant system or secondary system are no longer applicable.	
Section 4.2 – 2nd Paragraph	The nearest house is 1,300 feet from the Reactor Building and is one of several west of the site. The Vernon Elementary School (approximate enrollment of 250 pupils) is about 1,500 feet from the Reactor Building. The nearest hospital, Brattleboro Memorial, is approximately five (5) miles north-northwest from the site. The nearest dairy farm is approximately 1/2-mile northwest of the site. Additional dairy farms are located within a 5-mile radius of the plant. The largest sports facility in the	The nearest house is 1,300 feet from the Reactor Building and is one of several west of the site. The Vernon Elementary School (approximate enrollment of 250 pupils) is about 1,500 feet from the Reactor Building. The nearest hospital, Brattleboro Memorial, is approximately five (5) miles north-northwest from the site. The nearest dairy farm is approximately 1/2-mile northwest of the site. Additional dairy farms are located within a 5-mile radius of the plant. A nursing home is located 2 miles	Editorial. The Hinsdale Raceway no longer operates and reference is removed from the Emergency Plan.

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	vicinity is the Hinsdale Raceway, located approximately three (3) miles from the site. For racing events, the average attendance is approximately 4,000. A nursing home is located 2 miles south of the plant. These areas have been noted since they have required special planning consideration by offsite authorities in the event of a radiological emergency at Vermont Yankee.	south of the plant. These areas have been noted since they have required special planning consideration by offsite authorities in the event of a radiological emergency at Vermont Yankee.	
Section 5.1 – 1st Paragraph	**Notification of Unusual Event** Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	**Notification of Unusual Event** Events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	Editorial revision to reflect definition in NEI 99-01, Rev. 5
Section 5.1 – 2nd Paragraph	Notification of Unusual Event conditions do not cause serious damage to the plant and may not require a change in operational status. The purpose of the Notification of Unusual Event declaration is to: 1) ensure that the first step in any response later found to be necessary has	Notification of Unusual Event conditions do not cause serious damage to the plant. The purpose of the Notification of Unusual Event declaration is to: 1) ensure that the first step in any response later found to be necessary has been carried out; 2) bring the operating staff to a	VY will no longer be an operating nuclear power plant. A change in operational status is not a consideration due to the permanently shutdown and defueled plant condition.

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	been carried out; 2) bring the operating staff to a state of readiness; and 3) ensure that appropriate offsite notifications have been made in the event that additional support is required.	state of readiness; and 3) ensure that appropriate offsite notifications have been made in the event that additional support is required.	
Section 5.2 – 1st Paragraph	**Alert** Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.	**Alert** Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.	Editorial revision to reflect definition in NEI 99-01, Rev. 5
Section 5.3 – 1st Paragraph	**Site Area Emergency** Events are in process or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) that prevent effective access to	**Site Area Emergency** Events are in progress or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or HOSTILE ACTION that results in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) that prevent effective access to	Editorial revision to reflect definition in NEI 99-01, Rev. 5

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	equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.	equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.	
Section 5.4 – 1st Paragraph	**General Emergency** Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.	**General Emergency** Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or HOSTILE ACTION that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.	Editorial revision to reflect definition in NEI 99-01, Rev. 5
Figure 6.2	See “After” Column	Replaced “Comm. Room” with “Main TSC Area”	Editorial revision to accurately depict TSC layout.
Figure 6.3	See “After” Column	• Deleted “Radiation Protection Offices” • Changed “OSC Communication Center” to “OSC Manager and Briefing Room” • Deleted “Chemistry Offices” • Changed “Briefing Room” to “Rad Protection”	Editorial revision to accurately depict OSC layout.

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		• Changed "Rad Prot" to "NCO Room" • Changed "AO Room" to "NCO Room"	
Figure 6.4	See "After" Column	• Deleted "HVAC Room" • Added "NRC Room" • Changed "Chemistry & Sample Anal. Lab" to "Chemistry and Sample Analysis Laboratory" • Changed "OSMT Communication Area" to "Monitoring Team Communication Area" • Changed "Rad Assessment" to "Rad Assessment Area" • Deleted "Field Team Coordination" • Deleted "Alternate Facility" • Deleted "Warehouse" • Deleted "Decon Area" • Combined "Security" and "Administration and Logistics" into "Security & Admin/Logistics"	Editorial revision to accurately depict EOF/RC layout.
Section 7.3	The Utility Microwave and Radio Systems are located in the Control Room. The Utility Microwave is a line-of-sight dedicated system used to notify system load dispatchers of emergency conditions at the plant. The telephone has	The Utility Microwave and Radio Systems are located in the Control Room. In the event that communications fail with the NRC due to loss of the commercial telephone system, load dispatchers are advised that Vermont Yankee will use the	VY will no longer be an operating nuclear power plant. There will no longer be a need to notify system load dispatchers of emergency conditions at the plant because the potential to disrupt the power grid will

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	buttons marked for each load dispatcher. By pushing one of the buttons on the telephone, it rings automatically at the selected location. In the event that communications fail with the NRC due to loss of the commercial telephone system, the load dispatchers are advised that Vermont Yankee will use the Utility Microwave System to provide updates of plant conditions to NRC Region I. The Utility Radio Net is used as an alternate means of notifying load dispatchers. Load dispatchers have 24-hour manning capability at their organizations. The systems are tested once a week with both organizations.	Utility Microwave System to provide updates of plant conditions to NRC Region I.	no longer exist.
Section 7.10	7.10 Emergency Response Data System The Emergency Response Data System (ERDS) is a direct real-time electronic transmission of the following types of parameters to the NRC to assist them in monitoring the status of an emergency: • Core and coolant system data, • Containment building	Deleted	VY will no longer be an operating nuclear power plant. Section VI.1 of Appendix E to 10 CFR Part 50 indicates that ERDS is not applicable to nuclear power facilities that are shut down. Based on the permanently defueled status, this system is no longer necessary to transmit safety system parameter data to the NRC.

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	data, • Radioactivity release data, and • Site meteorological data. Vermont Yankee maintains a continuous ERDS connection with the NRC Operations Center.		NRC Memorandum from the Director, Division of Preparedness and Response (NSIR) to Regions (Division of Reactor Projects) clarifies the requirements for maintenance and use of ERDS by licensees who have submitted certification of permanent cessation of operations pursuant to Section 50.82, "Termination of Licenses," in Part 50, "Domestic Licensing of Production and Utilization Facilities," of Title 10 of the Code of Federal Regulations, (10 CFR Part 50)." This memorandum is publicly available in ADAMS (ML14099A520).
Table 7.1: State Police (VT, NH, MA) from CR State Police (VT, NH, MA) from EOF State EOCs (VT, NH, MA) State EOCs (VT, NH, MA) from EOF	 1, 2 1, 2 1, 2, 9 1, 2, 9, 10	 1, 2, 11 1, 2, 11 1, 2, 9, 11 1, 2, 9, 10, 11 Add InForm to Table Key as #11	InForm added to the Emergency Plan in Rev. 54.
Section 8.1 – 2nd Paragraph	During normal operations, the minimum staff on duty at the	The minimum staff on duty at the plant during all shifts consists of	VY will no longer be an operating nuclear power

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	plant during all shifts consists of one (1) Shift Manager, one (1) Control Room Supervisor, two (2) Control Room Operators, six (6) Auxiliary Operators, one (1) Shift Technical Advisor, one (1) Radiation Protection Technician, one (1) Chemistry Technician and security personnel as indicated in Figure 8.1. The responsibility for determining the status of the plant in an emergency is assigned to the Shift Manager or, in his absence from the Control Room, to the Control Room Supervisor who has the authority and responsibility to immediately initiate any emergency actions, including emergency classification and notification. Additional personnel are available on an on-call basis to respond to plant emergencies. Corrective action and repair, as outlined in Table 8.4, is performed by Operations staff on-shift until supplemented by additional ERO staff.	one (1) Shift Manager, one (1) Certified Fuel Handler (CFH), three (3) Non-Certified Operators (NCO), one (1) Radiation Protection Technician and security personnel as indicated in Figure 8.1. The responsibility for determining the status of the plant in an emergency is assigned to the Shift Manager or, in his absence from the Control Room, to the CFH who has the authority and responsibility to immediately initiate any emergency actions, including emergency classification and notification. Additional personnel are available on an on-call basis to respond to plant emergencies. Corrective action and repair, as outlined in Table 8.4, is performed by Operations staff on-shift until supplemented by additional ERO staff.	plant. The following on-shift positions will be eliminated: • Shift Technical Advisor (STA) • Two (2) Control Room Operators • Three (3) Auxiliary Operators • Chemistry Technician Following permanent cessation of operations and removal of fuel from the reactor vessel, Operations on-shift personnel will consist of one (1) Shift Manager (SM), one (1) Certified Fuel Handler (CFH) and three (3) Non-Certified Operators (NCOs). Title changes for the CRS to CFH and the AO and CRO to NCO were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).

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			These staffing levels have been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition.
Section 8.2 – 2nd Paragraph	Elements of the emergency response plan are activated subsequent to an emergency declaration by the Shift Manager; designated company personnel are notified and will report to designated locations. The emergency response action of the personnel already present are performed on a priority basis depending on the emergency conditions and the immediate need which those conditions dictate as determined by the onshift operations crew. The specific priorities facing the emergency response forces in the various locations cannot be pre-established. They would be specific to the nature of the emergency and variable with time as it proceeds.	Elements of the emergency response plan are activated subsequent to an emergency declaration by the Shift Manager; designated company personnel are notified and will report to designated locations. The emergency response action of the personnel already present are performed on a priority basis depending on the emergency conditions and the immediate need which those conditions dictate as determined by the on-shift operations crew. The specific priorities facing the emergency response forces in the various locations cannot be pre-established. They would be specific to the nature of the emergency and variable with time as it proceeds.	Editorial change from “onshift” to “on-shift”
Section 8.2 – 5th Paragraph	In emergency situations, the Shift Manager, Emergency Plant Manager, or OSC Manager can	In emergency situations, the Shift Manager, Emergency Plant Manager, or OSC Manager can	VY will no longer be an operating nuclear power plant and emplacement or

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	authorize actions, without following the complete work order process, if these actions prevent the following: • Loss of important equipment, • Personnel injury, or • Plant trip.	authorize actions, without following the complete work order process, if these actions prevent the following: • Loss of important equipment, or • Personnel injury.	retention of fuel into the reactor vessel will no longer be authorized. Therefore a plant trip will no longer be applicable.
Section 8.2.2 – 1st Paragraph, Item 5	5. Develop guidance for plant shift operations concerning plant protection of the reactor core;	5. Develop guidance for plant shift operations concerning plant protection;	VY will no longer be an operating nuclear power plant and emplacement or retention of fuel into the reactor vessel will no longer be authorized. Therefore, the need for the Emergency Plant Manager's responsibilities to include protection of the reactor core is no longer applicable.
Section 8.2.2 – 2nd Paragraph	A qualified manager assumes the role of Emergency Plant Manager under all emergency conditions. To assist the Emergency Plant Manager, the TSC is staffed by representatives from the following departments as depicted in Figure 8.3: • Operations • Maintenance	A qualified manager assumes the role of Emergency Plant Manager under all emergency conditions. To assist the Emergency Plant Manager, the TSC is staffed by representatives from the following departments as depicted in Figure 8.3: • Operations • Maintenance	VY will no longer be an operating nuclear power plant and emplacement or retention of fuel into the reactor vessel will no longer be authorized. Therefore, the need to maintain a Reactor Engineer in the TSC is no longer applicable.

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	• Reactor Engineering • Engineering • Chemistry (in the OSC) • Radiation Protection • Security (stationed at the off site command post)	• Engineering • Chemistry • Radiation Protection • Security (stationed at the off site command post)	
Section 8.2.4	EOF Manager	Deleted entire section	The EOF Manager position will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.
Section 8.2.10	During implementation of Severe Accident Management (SAM), the senior licensed individual in the TSC will assume the role of Decision Maker as defined in the SAM Guideline.	During implementation of Severe Accident Management (SAM), the Operations Coordinator in the TSC will assume the role of Decision Maker as defined in plant procedures.	EPOP-TSC-3542 states that the Operations Coordinator in the TSC assumes the duty of SAM Decision Maker.
Table 8.3, Page 2 of 3	Each State Health representative at the EOF/RC will request monitoring updates from the EOF Manager.	Each State Health representative at the EOF/RC will request monitoring updates from the Lead Offsite Liaison.	The EOF Manager position will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.
Table 8.3, Page 3 of 3	The Public Information Liaison at the EOF/RC relays accident status reports to the Joint Information Center.	The Technical Advisor at the EOF/RC relays accident status reports to the Joint Information Center.	The position of Public Information Liaison will not exist in the Permanently Defueled Emergency Response Organization

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			(ERO). Duties and responsibilities will be transferred to the Technical Advisor position.
Table 8.4 – Page 1 of 2, Functional Area - Plant Operations & Assessment of Operational Aspects	Shift Manager (1) — On Shift CRS (1) — On Shift CRO (2) — On Shift AO (6) — On Shift STA (1) — On Shift	Shift Manager (1) — On Shift Certified Fuel Handler (CFH) (1) — On Shift Non-Certified Operator (NCO) (3) — On Shift	VY will no longer be an operating nuclear power plant. The following on-shift positions will be eliminated: • STA • Two (2) Control Room Operators • Three (3) Auxiliary Operators • Chemistry Technician Following permanent cessation of operations and removal of fuel from the reactor vessel, Operations on-shift personnel will consist of the SM, one (1) CFH and three (3) NCOs. Title changes for the CRS to CFH and AO and CRO to NCO were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			approved by the NRC by letter dated December 22, 2014 (ML14217A072). These staffing levels have been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. STA oversight and technical knowledge in this functional area will be transferred to the Shift Manager and/or the CFH. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents previously submitted to the NRC.
Table 8.4 – Page 1 of 2; Functional Area – Notification/Communication; Major Tasks – Notify Licensee, State, local and federal personnel & maintain communication	STA/ AO — On Shift STA/Offsite Comm/ENS Comm/Chem.Tech (1) [3] — 30 min. STA/Offsite Comm/ENS Comm/Chem.Tech (2) [3] — 60 min.	CFH — On Shift Offsite Comm/ENS Comm (1) [3] — 30 min. Offsite Comm/ENS Comm (2) [3] — 60 min.	VY will no longer be an operating nuclear power plant. The STA position will be eliminated. Following permanent cessation of operations, the Chemistry Technician Position will not be

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			responsible for performing notification/communications tasks. STA assignments in this functional area will be transferred to a CRS/CFH. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Title change for the CRS to CFH was dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4 – Page 1 of 2; Functional Area – Radiological Accident Assessment and Support of Operational Accident	EOF Emergency Director (1) — 60 min. Shift Mgr/CRS/STA/Chem Tech — On Shift RP Staff (1)[4] — 30 min.	EOF Emergency Director (1) — 60 min. Shift Mgr/CFH — On Shift RP Staff (1)[4] — 30 min.	VY will no longer be an operating nuclear power plant. The STA and on-shift Chemistry Tech positions

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Assessment; Major Tasks – Offsite Dose Assessment			will be eliminated. STA assignments in this functional area will be transferred to the Shift Manager and/or the Control Room Supervisor. This transfer of duties and removal of the on-shift Chemistry Tech position have been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Title changes for the CRS to CFH was dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4 – Page 1 of 2; Functional Area – Radiological Accident	Shift RP tech (1) On Shift Field monitoring teams (1) [3] 30 min. Field monitoring teams (1) 60 min.	Field monitoring teams (1) [3] 30 min. Field monitoring teams (1) 60 min.	This change does not represent a change to the number of on-shift RP

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Assessment and Support of Operational Accident Assessment; Major Tasks – Onsite (out of plant)			Technicians. The number of on-shift RP Technicians remains one (1). The change is intended to clarify VY's RP Technician duties during an emergency, consistent with Table B-1 of NUREG-0654. Table B-1 of NUREG-0654 does not identify an on-shift position responsible for "onsite (out of plant)" surveys. During the initial stages of an emergency, the on-shift RP Technician will be assigned to the most critical tasks during the emergency response. VY maintains the capability to augment on-shift staff with field monitoring teams to perform this task within 30 minutes of notification of an emergency declaration.
Table 8.4 – Page 1 of 2; Functional Area – Radiological Accident Assessment and Support of Operational Accident Assessment; Major Tasks – Chemistry/Radiochemistry	Shift Chem. Tech (1) On Shift Chem staff (1) 60 min.	Chem staff (1) 60 min.	VY will no longer be an operating nuclear power plant. The on-shift Chemistry Tech position will be eliminated. Removal of the on-shift Chemistry Tech position has been evaluated in the VY analysis of proposed post-shutdown on-shift

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition.
Table 8.4 – Page 1 of 2; Functional Area – Plant System Engineering; Major Tasks – Shift Technical Advisor and Core Thermal Hydraulics	STA (1) On Shift TSC RE (1) [3] 30 min.	Positions not needed in a Permanently Defueled Condition	VY will no longer be an operating nuclear power plant. The STA position will be eliminated. STA oversight and technical knowledge in this functional area will be transferred to the Shift Manager and/or the CRS/CFH. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Additionally, the need to maintain a Reactor Engineer in the TSC is no longer applicable.
Table 8.4 – Page 1 of 2; Functional Area – Repair & Corrective Actions; Major Tasks – Mechanical Maintenance	Shift AO (1**) On Shift	NCO(1**) On Shift	The Defueled Organization contains three (3) NCOs on-shift. This on-shift complement has been evaluated in the VY analysis of proposed post-shutdown

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Title changes for the AO to NCO were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4 – Page 1 of 2; Functional Area – Repair & Corrective Actions; Major Tasks – Rad Waste Operator	AO/CRO (1) | 60 min.	NCO | 60 min.	The CRO position is eliminated in the post-shutdown condition. The Defueled Organization consists of three (3) NCOs on-shift. This on-shift complement has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			condition. Title changes for the AO and CRO to NCO were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4 – Page 1 of 2; Functional Area – Repair & Corrective Actions; Major Tasks – Electrical Maintenance/Instrumentation & Control Technician	Shift AO (1**) On Shift Maintenance (1) 30 min. Maintenance (1) 60 min.	NCO(1**) On Shift Maintenance (1) 30 min. Maintenance (1) 60 min.	The Defueled Organization consists of three (3) NCOs on-shift. This on-shift complement has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Title change for the AO to NCO was dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4 – Page 2 of 2; Functional Area – Protective Actions (In Plant); Major Tasks – Radiation Protection, access control, HP, coverage for repair, corrective actions, search & rescue, first aid & firefighting, personnel monitoring, dosimetry	Shift AO (2**) [2] — On Shift RP (2) — 30 min RP (2) — 60 min	NCO(2**) [2] — On Shift RP (2) — 30 min RP (2) — 60 min	The Defueled Organization consists of three (3) NCOs on-shift. This on-shift complement has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Title change for the AO to NCO was dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Table 8.4, Note ****	May be performed by engineering aide to Shift Manager (STA for ENVY)	Deleted	VY will no longer be an operating nuclear power plant. The STA position will be eliminated. STA oversight and technical knowledge will be transferred to the Shift Manager and/or the CRS/CFH. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition.
Table 8.4, Note 1	AP 0894 specifies minimum shift staffing requirements. FB requires 5 persons per TRM and the Vermont Yankee Nuclear Power Station On-Shift Staffing Analysis. The staffing analysis is maintained as a controlled document and is effective 30 days after OSRC approval. STA and Chemistry Tech must be available within 10 minutes to the Control Room. VY letter to NRC dated 4/14/1981 (FVY 81-65) establishing position. VY letter to NRC 6/22/1982 (FVY 82-75) Supplement –NUREG 0737 Item III.A.1.2 on training of	AP 0894 specifies minimum shift staffing requirements. FB requires 5 persons per TRM and the Vermont Yankee Nuclear Power Station Analysis of Proposed Post-Shutdown On-Shift Staffing. The staffing analysis was evaluated to reflect VY's permanently shutdown and defueled conditions, including the on-shift staff composition and revised accident analyses.	The Defueled on-shift staffing has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	on-shift staff to support VY position for staffing. VY letter to NRC 4/14/1981 (FVY 81-65) TMI Action Plan Item III.A.1.2, goal for augmentation of staff. VY letter to NRC 6/15/82 (FVY 82-70) Results of Augmentation drills to support use of goals. Titles of ENVY ERO positions are shown.		
Table 8.4, Note 2	All AOs use digital dosimeters with features for dose rate and total dose monitoring. AOs are trained to self-monitor in an emergency.	All NCOs use digital dosimeters with features for dose rate and total dose monitoring. NCOs are trained to self-monitor in an emergency.	Title changes for the AOs and CROs to NCO were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).
Table 8.4, Note 3	ENVY has designated pager holders who staff positions required to meet minimum staffing to activate TSC, OSC and EOF (see E Plan Figures 8.3 through 8.5). There are a minimum of 4 persons per position (4 teams who rotate duty). However, all persons on	ENVY has designated ERO members who staff positions required to meet minimum staffing to activate the TSC, OSC and EOF. The minimum staff positions required to activate the TSC and EOF are shown in E Plan Figures 8.3 and 8.5. The OSC Manager is the only	The Defueled Organization will consist of fewer than 4 teams rotating ERO duty. Additional changes to this note are editorial to remove references to pagers and pager holders.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	teams are expected to respond. In addition, all other ERO personnel not on pagers are notified by the emergency call-in notification system and are expected to respond.	position required to activate and staff the OSC. All ERO personnel are expected to respond when notified by the emergency call-in notification system.	
Table 8.4, Note 4	The on-shift Shift Manager, CRS, STA, and Chem Tech have the capability to do initial dose assessment and PAR. The TSC and EOF radiation assessment staff relieves them of this function.	The on-shift Shift Manager and CFH have the capability to do initial dose assessment and PAR. The TSC and EOF radiation assessment staff relieves them of this function.	VY will no longer be an operating nuclear power plant. The STA and on-shift Chemistry Technician positions will be eliminated. Title changes for the CRS to CFH were dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072). CFHs will supervise fuel handling operations in the permanently defueled condition. The CRS and SM will be qualified as CFHs. However, the SM requires additional qualification beyond the CFH training. Therefore, any reference to

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			the CFH position throughout this Plan is considered to be equivalent to the CRS position. NCOs will perform duties typically associated with those performed by Auxiliary Operators and Control Room Operators, such as manipulation and monitoring of plant equipment.
Figure 8.1	Normal On-Shift Emergency Organization	Replaced figure with “Defueled On-Shift Emergency Organization” figure. Deleted the following positions: • Shift Technical Advisor • Chem Tech • Control Room Operators Replaced “Control Room Supervisor” with “Certified Fuel Handler” Replaced “Auxiliary Operators” with “Non-Certified Operator”	VY will no longer be an operating nuclear power plant. The following on-shift positions will be eliminated: • STA • Two (2) Control Room Operators • Three (3) Auxiliary Operators • Chemistry Technician Following permanent cessation of operations and removal of fuel from the reactor vessel, Operations on-shift personnel will consist of the SM, one (1) CFH and three (3) NCOs. Title changes for the CRS to CFH and AO and CRO to NCO were dependent upon NRC approval of proposed changes to the VY

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
			Technical Specifications (BVY 13-096) that replaced references to licensed and non-licensed operators with references to CFHs and NCOs. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072). These staffing levels have been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. STA oversight and technical knowledge in this functional area will be transferred to the Shift Manager and/or the CRS/CFH. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents previously submitted to the NRC.
Figure 8.2	VY Emergency Management Organization	Replaced figure with “VY Defueled Emergency	The positions of EOF Manager and TSC Manager will not exist in the

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
		Management Organization" Deleted the following positions: • EOF Manager • TSC Manager	Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within each Emergency Response Facility.
Figure 8.3	Technical Support Center Emergency Organization	Replaced figure with "Defueled Technical Support Center Emergency Organization" Deleted the following positions: • TSC Manager • TSC Communicator • Mechanical Engineer • Reactor Engineer • Electrical /I&C Engineers • IT Specialist	The TSC positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the TSC.
Figure 8.4	Operations Support Center Emergency Organization	Deleted figure	ERO Staffing changes result in one remaining OSC position (OSC Manager) – A figure is no longer necessary to describe the OSC organization.
Figure 8.5	Emergency Operations Facility Organization	Replaced figure with "Defueled Emergency Operations Facility Organization" Deleted the following positions: • EOF Manager • EOF Communicator • Public Information Liaison • EOF Log Keeper • IT Specialist	The EOF positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Figure 8.7	Joint Information Center Organization	Replaced figure with "Defueled Joint Information Center Organization" Deleted the following positions: • Information Coordinator • Technical Assistant • Credentialing • Press Release Writer • Logistics Coordinator • Inquiry Response Coordinator • Media Monitoring • JIC Log Keeper • Inquiry Responders	The JIC positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the JIC.
Section 9.2.1 – 2nd Paragraph	3. The Shift Technical Advisor reports to the Control Room and provides technical support as necessary;	Deleted	VY will no longer be an operating nuclear power plant. The STA position will be eliminated. STA assignments in this functional area will be transferred to the CFH position. This transfer of duties has been evaluated in the VY analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition.
Section 9.2.2	5. The EOF Manager	5. The Emergency Director	The EOF Manager position

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	establishes operations in the EOF/RC;	establishes operations in the EOF/RC;	will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.
Section 9.2.4 – 2nd Paragraph	1. The Emergency Director may request that the EOF Manager mobilize other personnel in support of Vermont Yankee through activation of the Corporate Emergency Center.	1. The Emergency Director may request that other personnel be mobilized in support of Vermont Yankee through activation of the Corporate Emergency Center.	The EOF Manager position will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.
Section 9.3 – 3rd Paragraph	De-escalation from a Notification of Unusual Event to a recovery phase requires satisfying the following criteria: 1. Criticality controls are in effect; 2. The core is being adequately cooled; 3. The fission product release has been controlled; 4. Control has been established over containment pressure and temperature; 5. An adequate heat transfer path to an ultimate heat sink has been established; 6. Reactor coolant system pressure is under control;	De-escalation from a Notification of Unusual Event to a recovery phase requires satisfying the following criteria: 1. Criticality controls are in effect; 2. The fission product release has been controlled; 3. An adequate heat transfer path to an ultimate heat sink has been established; 4. Notification of Unusual Event conditions have been reviewed, are under control, and are not expected to deteriorate further.	VY will no longer be an operating nuclear power plant and emplacement or retention of fuel into the reactor vessel will no longer be authorized. Therefore, the need for adequate core cooling, control over containment pressure and temperature and control of reactor coolant system pressure is not necessary.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	and/or 7. Notification of Unusual Event conditions have been reviewed, are under control, and are not expected to deteriorate further.		
Table 9.1, Technical Support Center; Alert or Site Area Emergency or General Emergency Column	Emergency Plant Manager TSC Manager Maintenance Coordinator (Electrical/Mechanical/I&C) Radiological Coordinator Reactor Engineer Engineering Coordinator(Project, System, Design) Operations Coordinator Engineering Support Group	Emergency Plant Manager Maintenance Coordinator (Electrical/Mechanical/I&C) Radiological Coordinator Engineering Coordinator(Project, System, Design) Operations Coordinator	The TSC positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the TSC.
Table 9.1, Operations Support Center; Alert or Site Area Emergency or General Emergency	OSC Manager Radiation Protection Staff Chemistry Staff Spare Licensed Operators Spare Auxiliary Operators Control Instrument Specialists Plant Mechanics	OSC Manager Radiation Protection Staff Chemistry Staff Spare AOs/CROs/NCOs Control Instrument Specialists Plant Mechanics	VY will no longer be an operating nuclear power plant. Use of the term “licensed” is no longer appropriate. The OSC positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the OSC.
Table 9.1, Emergency	Emergency Director	Emergency Director	The EOF positions identified

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Operations Facility/Recovery Center; Alert or Site Area Emergency or General Emergency Column	Offsite Communicator Technical Advisor EOF Manager Administration and Logistics Coordinator Radiological Assessment Coordinator Personnel & Equipment Monitor *Site/Offsite Monitoring Teams Public Information Liaison	Offsite Communicator Technical Advisor Administration and Logistics Coordinator Radiological Assessment Coordinator *Site/Offsite Monitoring Teams	for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the EOF.
Table 9.1, Joint Information Center; Alert or Site Area Emergency or General Emergency	Company Spokesperson VY Public Information Staff Nuclear Public Information Representatives Joint Information Center Staff	Company Spokesperson	The JIC positions identified for deletion will not exist in the Permanently Defueled ERO. Duties and responsibilities will be transferred to remaining positions within the JIC.
Section 10.1.1	10.1.1 Initial Offsite Radiological Dose Projection Capability Vermont Yankee has developed a method to quickly determine the projected offsite radiological conditions at various distances downwind of the plant site. During the initial stages of an emergency, the Shift Manager or designated individual is responsible to perform the initial evaluation of offsite radiological conditions. The initial evaluation	Deleted	The Unified Rascal Interface (URI) will become the primary site specific dose assessment software for Vermont Yankee. This computer program replaces the existing ODPS and METPAC dose assessment software.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	of offsite radiological conditions is accomplished by utilizing the Offsite Dose Projection System (ODPS). The ODPS utilizes a straight line Gaussian plume dispersion model programmed on the plant process computer. The program allows the user the option to select one of two release pathways (elevated or ground) and to utilize site-specific radiological and meteorological information to estimate the Total Effective Dose Equivalent and adult thyroid Committed Dose Equivalent (elevated release only) at a distance of 0.35 miles to 10 miles from the plant site.		
Section 10.1.2	Once the EOF/RC is activated, Vermont Yankee utilizes a plume tracking/dose projection system, which is capable of providing near real time offsite dose estimated for actual meteorological and radiological accident conditions. The system assumes a Gaussian, variable trajectory, plume segment transport model designed to handle the site-specific atmospheric dispersion characteristics associated with the Vermont Yankee Nuclear Power Station site. Both continuous and intermittent releases for either ground or stack release points can be evaluated. The effects of release height, building wake	Vermont Yankee utilizes a plume tracking/dose projection system, which is capable of providing near real time offsite dose estimated for actual meteorological and radiological accident conditions. The system assumes a variable trajectory, plume segment transport model designed to handle the site-specific atmospheric dispersion characteristics associated with the Vermont Yankee Nuclear Power Station site. Both continuous and intermittent releases for either ground or stack release points can be evaluated. The effects of release height, building wake entrainment,	The Unified Rascal Interface (URI) will become the primary site specific dose assessment software for Vermont Yankee. This computer program replaces the existing ODPS and METPAC dose assessment software. This section is revised to describe URI.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	entrainment, momentum plume rise, precipitation and terrain height can be assessed in the evaluation. Plume trajectories are based on onsite meteorological tower information and topography of the Connecticut River Valley. The model combines complex plume transport algorithms with the same dose assessment algorithms used by the model described in Section 10.1.1. The model is programmed on a personal computer. The program is designed to graphically display the calculated plume characteristics on a 10-mile Vermont Yankee EPZ site map while providing transcripts of all dispersion and dose calculations. nally, the Offsite Dose Nomogram can be used to determine an activity release rate (μCi/sec) and a projected offsite whole body plume centerline dose rate (mR/hr) at 1/3 of a mile from the stack. These determinations are made by using Figure 10.1 with the following additional information: after reactor shutdown; plant stack high range monitor response; plant stack flow rate at the time of the accident; and speed. The assumptions incorporated in and the use of the nomograms contained in	momentum plume rise, precipitation and terrain height can be assessed in the evaluation. Plume trajectories are based on onsite meteorological tower information and topography of the Connecticut River Valley. The model combines complex plume transport algorithms with dose assessment algorithms. The model is programmed on a personal computer. The program is designed to graphically display the calculated plume characteristics on a 10-mile Vermont Yankee EPZ site map while providing transcripts of all dispersion and dose calculations.	

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	Figure 10.1 is discussed in Appendix C.		
Section 10.2 – 1st Paragraph	In the event a General Emergency has been declared, Vermont Yankee immediately recommends protective actions to state authorities based on plant conditions which include the status of core and containment conditions. At a minimum, the Shift Manager or Emergency Director, who is in charge of the emergency response activities, recommends that the general public be advised to seek shelter for the towns of Hinsdale, New Hampshire and Vernon, Vermont; and the towns located five miles downwind in the affected sectors.	In the event a General Emergency has been declared, Vermont Yankee immediately recommends protective actions to state authorities based on plant conditions. At a minimum, the Shift Manager or Emergency Director, who is in charge of the emergency response activities, recommends that the general public be advised to seek shelter for the towns of Hinsdale, New Hampshire and Vernon, Vermont; and the towns located five miles downwind in the affected sectors.	VY will no longer be an operating nuclear power plant and emplacement or retention of fuel into the reactor vessel will no longer be authorized. Therefore, the need to communicate the status of the core and containment conditions is not necessary.
Section 10.2 – 2nd Paragraph	If plant conditions indicate a severe reactor accident exists involving actual or projected substantial core damage, Vermont Yankee recommends to the appropriate state officials evacuation of the towns of Hinsdale, New Hampshire and Vernon, Vermont; and all towns located five miles downwind in the affected sectors.	If plant conditions indicate a severe accident exists, Vermont Yankee recommends to the appropriate state officials evacuation of the towns of Hinsdale, New Hampshire and Vernon, Vermont; and all towns located five miles downwind in the affected sectors.	VY will no longer be an operating nuclear power plant and emplacement or retention of fuel into the reactor vessel will no longer be authorized. Therefore, an accident involving the reactor the potential for actual or projected substantial core damage no longer exists.
Section 10.3 – 2nd Paragraph	Table 10.2 specifies the guidelines on emergency dose limits for personnel providing	Table 10.2 specifies the guidelines on emergency dose limits for personnel providing	VY will no longer be an operating nuclear power plant. The on-shift

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	emergency response duties which is consistent with the Environmental Protection Agency Emergency Worker Dose Limit Guides (EPA 400-R-92-001). The Shift Manager initially has the responsibility to authorize emergency dose commitments until relieved by the Emergency Plant Manager. This authorization is coordinated with the assistance of the Radiological Coordinator or Shift Chemistry and Radiation Protection Technicians as needed. Exposure to individuals providing emergency functions will be consistent with the limits specified in Table 10.2 with every attempt made to keep exposures ALARA.	emergency response duties which is consistent with the Environmental Protection Agency Emergency Worker Dose Limit Guides (EPA 400-R-92-001). The Shift Manager initially has the responsibility to authorize emergency dose commitments until relieved by the Emergency Plant Manager. This authorization is coordinated with the assistance of the Radiological Coordinator and Radiation Protection Technicians as needed. Exposure to individuals providing emergency functions will be consistent with the limits specified in Table 10.2 with every attempt made to keep exposures ALARA.	Chemistry Technician positions will be eliminated.
Section 10.5.1	Medical Response Team members are trained in accordance with station procedures.	Medical response is provided by on-shift Fire Brigade members trained in basic first-aid and Cardiopulmonary resuscitation (CPR).	The Medical Response Team is being eliminated. Medical response will be provided by Fire Brigade members available on site on a 24-hour per day basis.
Section 10.6	A range of protective actions to protect onsite personnel during hostile action is provided to ensure the continued ability to safely shut down the reactor and perform the functions of the	A range of protective actions to protect onsite personnel during hostile action is provided to ensure the continued ability to maintain equipment important to the safe storage of spent fuel	Revised to reflect important equipment during permanently shutdown and defueled plant condition.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
	emergency plan.	and perform the functions of the emergency plan.	
Figure 10.1	Figure 10.1 Vermont Yankee Emergency Dose Rate Nomogram	Deleted Figure	VY will no longer be an operating nuclear power plant. Figure 10.1 is no longer applicable because it is based on the isotopic mix for a LOCA.
Section 11.3 – 4th Paragraph	The Public Information Liaison and required staff report to the EOF/RC for coordinating the accident information between the plant and the Joint Information Center.	The Technical Advisor and required staff report to the EOF/RC for coordinating the accident information between the plant and the Joint Information Center.	The Technical Advisor will assume this duty in the permanently defueled condition.
Section 11.3 – 6th Paragraph	Normally, a prerecorded message provides, on a daily basis, routine operating information, changes in plant operation, and other items of interest.	Normally, a prerecorded message provides, on a daily basis, routine plant information, changes in plant conditions, and other items of interest.	VY will no longer be an operating nuclear power plant.
Section 12.1.4 – Medical Drills	To evaluate the training of the facility's medical response team and offsite medical response (ambulance and hospital), a medical drill is conducted annually with a simulated contaminated injured individual.	To evaluate the training of the facility's medical response and offsite medical response (ambulance and hospital), a medical drill is conducted annually with a simulated contaminated injured individual.	The Medical Response Team is being eliminated. Medical response will be provided by Fire Brigade members available on site on a 24-hour per day basis.
Appendix B	(A more detailed listing of emergency equipment is provided in OP 3506, "Emergency Equipment Readiness Check")	(A more detailed listing of emergency equipment is provided in OP-EQUIP-3506, "Emergency Equipment Readiness Check")	Editorial revision to procedure number.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Appendix C	Appendix C Initial Offsite Dose Rate Estimation	Appendix deleted in its entirety	VY will no longer be an operating nuclear power plant. Appendix C is no longer applicable because it is based on the isotopic mix for a Loss of Coolant Accident (LOCA).
Appendix G – Section I	OP-3507 OP-3508 OP-3510 OP-3513 OP-3547 OP-3548 AP-3712	EPOP-EREC-3507 EPOP-MED-3508 EPOP-OSMT-3510 EPOP-RAD-3513 EPOP-SEC-3547 EPOP-TERM-3548 EPAP-TRNG-3712	Editorial revision to procedure numbers.
Appendix G – Section I	Not Applicable	Add: V-EN-FAP-EP-009, Use of KI for the Emergency Response Organization V-EN-FAP-EP-010, Severe Weather Response V-EN-FAP-EP-012, Severe Weather Recovery V-EN-EP-202, Equipment Important to Emergency Preparedness V-EN-EP-301, Emergency Planning Assessment of Offsite Emergency Response Capability	See below.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
		Following a Natural Disaster V-EN-EP-305, Emergency Planning 10CFR50.54(q) Review Program V-EN-EP-306, Drills and Exercises V-EN-EP-307, Hostile Action Based Drills & Exercises V-EN-EP-308, Emergency Planning Critiques V-EN-EP-310, Emergency Response Organization Notification System V-EN-EP-401, Public Use of Emergency Preparedness Owner Controlled Area V-EN-EP-601, Corporate Emergency Center Operations V- EN-EP-801 – Emergency Response Organization	
Appendix G – Section I	Not Applicable	Add: EPOP-AFA-10083 – Alternative Facility Activation EPOP-URI-10095 – Offsite Dose Assessment using the Unified Rascal Interface	EPOP-AFA-10083 was developed and added to the Emergency Plan for compliance with 10 CFR Part 50, Appendix E Section IV.E.8.d. EPOP-URI-10095 was developed and added to the Emergency Plan to address the change to URI.

Emergency Plan Section	Before (Rev. 54)	After	Reason for Change
Appendix G – Corporate Support Procedures	**Corporate Support Procedures**	Deleted	EN-EP-311 will be deleted. VY will no longer be an operating nuclear power plant. Section VI.1 of Appendix E to 10 CFR Part 50 indicates that ERDS is not applicable to nuclear power facilities that are shut down. Based on the permanently defueled status, this system is no longer necessary to transmit safety system parameter data to the NRC. The applicable information from the remaining procedures will be relocated to a VY-specific procedure and added to the EPIP list (see above) and the Corporate Support Section of Appendix G will be deleted. EN-EP-309 and EN-EP-606 will be deleted as neither procedure is applicable to VY. These procedures should not have been included in the VY Emergency Plan and removal is an editorial change.

(TYPICAL)

I. LBDCR INITIATION

Justine Anderson	Eplan	4160	VY	1/26/15	LIC 14-14
INITIATOR'S NAME *(print or type)*	**DEPARTMENT**	**PHONE**	**UNIT**	**DATE**	**LBDCR #**

DESCRIPTION OF THE CHANGE (Attach additional pages if necessary; may also reference PAD Form.)
See attached changes on the PAD form

	LICENSING DOCUMENT(S) AFFECTED	**AFFECTED SECTION/PAGE(S)** *(Attach marked-up pages)*
☐	**Operating License (OL)**	
☐	**Technical Specifications (TS)**	
☐	**Environmental Protection Plan (EPP)**	
☐	**Anti-Trust Conditions (Appendix of OL)**	
☐	**NRC Orders**	
☐	**Updated Final Safety Analysis Report (UFSAR)**	
☐	**TS Bases**	
☐	**Technical Requirements Manual (TRM) (including TRM Bases)**	
☐	**Quality Assurance Program Manual (QAPM)**	
☐	**Security Plan**	
☒	**Emergency Plan (EP)**	**Table of Contents, Section 2.0, 3.2, 4.1, 4.2, 5.1, 5.2, 5.3, 5.4, 7.3, 7.10, 8.1, 8.2, 8.2.2, 8.2.4, 8.2.10,9.2.1, 10.1.1, 10.1.2, 1.2, 10.3, 10.5.1, 10.6, 11.3, 12.1.4, Figure 6.2-6.4, 8.1-8.7 & 10.1, Table 7.1, Table 8.3, 8.4, Appendix B, C & G**
☐	**Offsite Dose Calculation Manual (ODCM)**	
☐	**Spent Fuel Storage Cask Final Safety Analysis Report (CFSAR)**	
☐	**Spent Fuel Storage Cask Certificate of Compliance (CoC)**	
☐	**Spent Fuel Storage Cask CoC Bases**	
☐	**10 CFR 72.212 Evaluation Report (212 Report)**	
☐	**Fire Protection Program (FPP)/Fire Hazards Analysis (FHA)**	
☐	**Core Operating Limits Report (COLR)**	
☐	**Other (Specify)** _____	

METHOD(S) ALLOWING THE CHANGE			
☒	**PAD Review** (Attach a copy)	☐	**10 CFR 50.48 / EN-DC-128 Review** (Attach a copy)
☐	**10 CFR 50.59 Evaluation** (Attach a copy)	☒	**10 CFR 50.54 Review** (Attach a copy)
☐	**10 CFR 72.48 Evaluation** (Attach a copy)	☐	**Environmental Evaluation** (Attach a copy)
☒	**Approved NRC Change** (Attach a copy of NRC Letter or reference NRC letter number)	☐	**Editorial Change** (LBDs controlled under 50.59 or 72.48, only)
☐	**NRC Approval is Required**	☐	**Other Approval** (Attach a copy of supporting documents)
☐	**"UFSAR-only" Change (NEI 98-03)** **Check the appropriate box below:** ☐ **Reformatting** ☐ **Replacing Detailed Drawing** ☐ **Referencing other Documents** **Check the appropriate box below and provide a basis for removing information, if applicable:** ☐ **Removing Excessive Detail** ☐ **Removing Obsolete Information** ☐ **Removing Redundant Information** ☐ **Removing Commitments** **Removal Basis:**		

II. LBDCR IMPLEMENTATION[1]

ACTIONS SUPPORTING IMPLEMENTATION			
LBD SECTION	REQUIRED ACTIONS		ACTION TAKEN OR TRACKING METHOD
	ACTION	RESP. DEPT	
Table of Contents, Section 2.0, 3.2, 4.1, 4.2, 5.1, 5.2, 5.3, 5.4, 7.3, 7.10, 8.1, 8.2, 8.2.2, 8.2.4, 8.2.10,9.2.1, 10.1.1, 10.1.2, 1.2, 10.3, 10.5.1, 10.6, 11.3, 12.1.4, Figure 6.2-6.4, 8.1-8.7 & 10.1, Table 7.1, Table 8.3, 8.4, Appendix B, C & G	Revise implementing procedures in conjunction with Eplan change and NRC approval	Eplan	Procedures revised in accordance with AP-0096
Same as above	Conduct training for new ERO positions	Training	Complete
Same as above	Conduct training drills for new ERO	Eplan	Complete
N/A	Send Eplan and procedures to the NRC	DCC	BVY 15-003 & 004

III. LBDCR REVIEW AND APPROVAL[1]

REVIEW AND APPROVAL of LBDCR *(see Attachment 9.2)*		
Department	**Approved[2]**	**Date**
UFSAR Section Owner[3]	N/A	
Peer Review[4]	Phil Couture per email (attached)	1/27/15
LBD Owner	MP McKenney	1/27/15

[1] Add additional table rows as needed.

[2] The printed name should be included on the form when using electronic means for signature. Signatures may be obtained via electronic processes (e.g., PCRS, ER processes, Asset Suite

signature), manual methods (e.g., ink signature), e-mail, or telecommunication. If using an e-mail, attach it to this form.

3 UFSAR Section Owners should refer to EN-LI-113-01, "Updated Final Safety Analysis Report Change Process," for review expectations. N/A if change does not update the UFSAR.

4 Administrative peer review intended to verify changes have been incorporated correctly into revised LBD prior to issuance.

From: Couture III, Philip
To: Anderson, Justine
Cc:
Subject: RE: PAD
Sent: Tue 1/27/2015 10:39 AM

Yes, thanks.

You can sign me off for the peer review on the LBDCR.

Phil Couture
Licensing Lead – Decommissioning Planning Organization
Vermont Yankee Nuclear Power Station
802-451-3193

Procedure/Document Number: Emergency Plan Page 1 of 10	Revision: 55
Equipment/Facility/Other: Vermont Yankee	
Title: Vermont Yankee Emergency Plan	

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

Table of Contents

- Editorial revision to reflect changes to section titles and page numbers described below
- Removed Appendix C from the Table of Contents
- Removed Figure 10.1 from the Table of Contents

Section 2.0, Definitions

- Changed "process" to "progress" in the following definitions to conform with definitions contained in NEI 99-01, "Methodology for Development of Emergency Action Levels", Rev. 5, dated February 2008:
  - Alert
  - General Emergency
  - Notification of Unusual Event
  - Site Area Emergency
- Changed "take" to "taken" in the definition of Assessment Actions
- Changed "intimidates" to "intimidate" in the definition of Hostile Action

Section 3.2, Actions in an Emergency

- Changed "Emergency Notification System" to "InForm Notification System" in step 5
- Changed "emergency notification system" to "notification plan" in step 7

Section 4.1, The Site

- Revised the 2nd Paragraph to address January 12, 2015 certification of permanent cessation of operations and permanent removal of fuel from the reactor vessel

Section 5.1, Notification of Unusual Event

- Changed "process" to "progress"
- Removed "and may not require a change in operational status"

Section 5.2, Alert

- Changed "process" to "progress"

Section 5.3, Site Area Emergency

- Changed "process" to "progress"

Section 5.4, General Emergency

- Changed "process" to "progress"

Figure 6.2, Technical Support Center Layout

- Replaced figure with figure accurately depicting TSC layout

Figure 6.3, Operational Support Center Layout

- Replaced figure with figure accurately depicting OSC layout

Figure 6.4, Emergency Operations Facility/Recovery Center Layout

- Replaced figure with figure accurately depicting EOF/RC layout

Section 7.3, Utility Microwave and Radio Systems

- Removed, "The Utility Microwave is a line of sight dedicated system used to notify system load dispatchers of emergency conditions at the plant. The telephone has buttons marked for each load dispatcher. By pushing one of the buttons on the telephone, it rings automatically at the selected location."
- Removed "the"
- Removed "The Utility Radio Net is used as an alternate means of notifying load dispatchers. Load dispatchers have 24-hour manning capability at their organizations. The systems are tested once a week with both organizations."

Section 7.10, Emergency Response Data System (Deletion addressed in separate 50.54(q) screening and analysis)

- Deleted Section

Table 7.1, Vermont Yankee Emergency Communications Matrix

- Added "11" (InForm) to the following:
  - Calling From: CR and EOF Calling To: State Police (VT, NH, MA)
  - Calling From: CR and EOF Calling To: State EOCs (VT, NH, MA)
  - Added "11 InForm" to the Key

Section 8.2, Emergency Response Organization

- Changed "onshift" to "on-shift"
- Deleted "Plant trip" bullet

Section 8.2.10, Decision Maker

- Replaced "the senior licensed individual in the TSC will assume the role of Decision Maker as defined in the SAM Guideline" with "the Operations Coordinator in the TSC will assume the role of Decision Maker as defined in plant procedures"

Section 10.5.1, Medical Treatment

- Replaced, "Medical Response Team members are trained in accordance with station procedures." with "Medical response is provided by on-shift Fire Brigade members trained in basic first-aid and Cardiopulmonary resuscitation (CPR)."

Section 10.1.1, Initial Offsite Radiological Dose Projection Capability

- Deleted Section

Section 10.1.2, Variable Trajectory Atmospheric Dispersion

- Removed, "Once the EOF/RC is activated," in the first sentence of first paragraph
- Removed "Gaussian," in the second sentence of first paragraph
- Removed, "the same" in first sentence of second paragraph
- Removed, "used by the model described in Section 10.1.1" in first sentence of second paragraph
- Deleted third and fourth paragraph

Section 10.6, Protective Actions for Onsite Personnel

- Replaced, "safely shut down the reactor" with "maintain equipment important to safe storage of spent fuel"

Figure 10.1, Vermont Yankee Emergency Dose Rate Nomogram

- Deleted figure

Section 11.3, Public Information

- Replaced, "routine operating information, changes in plant operation" with "routine plant information, changes in plant conditions"

Section 12.1.4, Medical Drill

- Replaced, "To evaluate the training of the facility's medical response team and offsite..." with "To evaluate the training of the facility's medical response and offsite..."

Appendix B, Emergency Equipment

- Changed procedure number from "OP 3506" to "EPOP-EQUIP-3506"

Appendix C, Initial Offsite Dose Rate Estimation

- Deleted Appendix

Appendix G, Index of Emergency Plan Implementing Procedures and Support Plans

- Revised the following procedure numbers:
  - OP 3507 to EPOP-EREC-3507
  - OP 3508 to EPOP-MED-3508
  - OP 3510 to EPOP-OSMT-3510
  - OP 3513 to EPOP-RAD-3513
  - OP 3547 to EPOP-SEC-3547
  - OP 3548 to EPOP-TERM-3548
  - AP 3712 to EPAP-TRNG-3712
- New procedure EPOP-AFA-10083, Alternative Facility Activation, was added to the Emergency Plan to comply with new EP rulemaking and 10 CFR Part 50, Appendix E Section IV.E.8.d.
- New procedure EPOP-URI-10095, Offsite Dose Assessment using the Unified Rascal Interface, was added to the Emergency Plan to address the URI change
- Moved the following procedures from Section II, Support Plans, Corporate Support Procedures to Section I, Emergency Plan Implementing Procedures and revised the numbering format from EN-EP-xxx to V-EN-EP-xxx:
  - V-EN-FAP-EP-009, Use of KI for the Emergency Response Organization
  - V-EN-FAP-EP-010, Severe Weather Response
  - V-EN-FAP-EP-012, Severe Weather Recovery
    V-EN-EP-202, Equipment Important to Emergency Preparedness
  - V-EN-EP-301, Emergency Planning Assessment of Offsite Emergency Response Capability Following a Natural Disaster
  - V-EN-EP-305, Emergency Planning 10CFR50.54(q) Review Program
  - V-EN-EP-306, Drills and Exercises
  - V-EN-EP-307, Hostile Action Based Drills & Exercises
  - V-EN-EP-308, Emergency Planning Critiques
  - V-EN-EP-310, Emergency Response Organization Notification System
  - V-EN-EP-401, Public Use of Emergency Preparedness Owner Controlled Area
  - V-EN-EP-601, Corporate Emergency Center Operations
  - V-EN-EP-801, Emergency Response Organization
- Deleted EN-EP-311, Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN) from Section II, Support Plans, Corporate Support Procedures
- Deleted EN-EP-309, Fatigue Management for Hurricane Response Activities and EN-EP-606, Pandemic Flu Response from Section II, Support Plans, Corporate Support Procedures
- Deleted Section II, Support Plans, Corporate Support Procedures

References to Control Room Supervisor (CRS), Control Room Operator (CRO), and Auxiliary Operators (AO)

- Throughout the Emergency Plan, references to Control Room Supervisor (CRS), Control Room Operator (CRO) and Auxiliary Operators (AOs) have been replaced with Certified Fuel Handler (CFH) and Non-Certified Operators (NCOs). Specifically, Section 8.1, Table 8.4, and Figures 6.3 and 8.1. Emergency Plan changes submitted in BVY 14-018 stated, "Title changes for the CRS and CRO/AO to CFH and NCO, respectively, are dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that revise the minimum shift staffing requirements in the VY Technical Specifications by replacing references to licensed and non-licensed operators with references to CFHs and NCOs. The Emergency Plan submitted in BVY 14-018 addressed the pending title changes by referring to titles as "CRS/CFH" and AO/CRO/NCO" and included Note **** in Table 8.4 indicating title changes were dependent on NRC approval of BVY 13-096. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072).

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Part II. Activity Previously Reviewed?

Is this activity fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?

☐ YES 50.54(q)(3) Evaluation is NOT required. Enter justification below and complete Part VI.

☒ NO Continue to next part

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

Justification:

☐ Bounding document attached (optional)

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity.(Refer to EN-LI-100)

NOTE: For example, when a design change is the proposed activity, consequential actions may include changes to other documents which have a different change control process and are **NOT** to be included in this 50.54(q)(3) Screening.

APPLICABILITY CONCLUSION

☐ If there are no controlling change processes, continue the 50.54(q)(3) Screening.

☒ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.

☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

CONTROLLING CHANGE PROCESSES

10 CFR 50.54(q)

Part IV. Editorial Change

Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?

☐ YES 50.54(q)(3) Evaluation is NOT required. Enter justification and complete Part VI.

☒ NO Continue to next part

Justification:

A portion of the changes described in Part I are editorial or typographical changes. These changes are addressed in Part V of this screening.

Part V. Emergency Planning Element/Function Screen (Associated 10 CFR 50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?

1. Responsibility for emergency response is assigned. [1]	☒
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	☒
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	☒
4. The process for timely augmentation of onshift staff is established and maintained. [2]	☐
5. Arrangements for requesting and using off site assistance have been made. [3]	☐
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	☐
7. A standard scheme of emergency classification and action levels is in use. [4]	☒
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-	☐

up notifications. [5]	
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	☐
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	☐
11. Systems are established for prompt communication among principal emergency response organizations. [6]	☒
12. Systems are established for prompt communication to emergency response personnel. [6]	☐
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	☐
14. Coordinated dissemination of public information during emergencies is established. [7]	☐
15. Adequate facilities are maintained to support emergency response. [8]	☐
16. Adequate equipment is maintained to support emergency response. [8]	☐
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	☒
18. A range of public PARs is available for implementation during emergencies. [10]	☒
19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.[10]	
21. The resources for controlling radiological exposures for emergency workers are established. [11]	☐
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	☒
23. Plans for recovery and reentry are developed. [13]	☐
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	☒
25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	☐
26. Identified weaknesses are corrected. [14]	☐
27. Training is provided to emergency responders. [15]	☒
28. Responsibility for emergency plan development and review is established. [16]	☐
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	☐

APPLICABILITY CONCLUSION

☐ If no Part V criteria are checked, a 50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.

✓ If any Part V criteria are checked, complete Part VI and perform a 50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

Editorial Changes

The following editorial changes require no further evaluation.

The Table of Contents has been revised to address updated page numbers and the deletion of Section 7.10

(Emergency Response Data System), Section 10.1.1 (Initial Offsite Radiological Dose Projection Capability), Figure 10.1 (Vermont Yankee Emergency Dose Rate Nomogram) and Appendix C (Initial Offsite Dose Rate Estimation). These changes do not change the meaning or intent of the Emergency Plan, change any facilities or equipment, or change any of the processes described in the Emergency Plan. Updates to the Table of Contents to match the body of the Emergency Plan are administrative in nature and no further evaluation is required.

Changes to the definitions of Alert, General Emergency, Notification of Unusual Event, Site Area Emergency and Hostile Action in Section 2.0 (Definitions) and sections 5.1 (Notification of Unusual Event), 5.2 (Alert), 5.3 (Site Area Emergency) and 5.4 (General Emergency) are editorial changes to duplicate the definitions with those in NEI 99-01, "Methodology for Development of Emergency Action Levels," Rev. 5; on which the VY EALs are based. No further evaluation is required with respect to these changes.

The change to the definition of Assessment Actions in section 2.0 is an editorial change and no further evaluation is required.

The change to Item 7 in Section 3.2 is an editorial change. The Emergency Notification System is a formal system used to notify the NRC during an emergency. The generic use of "emergency notification system" in Step 7 can be confusing and is meant only to direct the communicator to use the notification plan set forth in Figure 9.1 and Table 9.1 of the Emergency Plan and not the Emergency Notification System. Figure 9.1 is entitled "Notification Plan" and identifies the methods used to notify various offsite agencies. No further evaluation is required with respect to this change.

The change to Section 4.1 to address the January 12, 2015 certification is an editorial change. No further evaluation is required with respect to this change.

The changes to Figures 6.2 and 6.4 are administrative in nature and reflect accurate facility layout. This revision does not change any facilities or equipment. No further evaluation is required.

The change from "onshift" to "on-shift" in Section 8.2 is an editorial change for consistency with the remainder of the Emergency Plan. No further evaluation is required with respect to this change. Currently, Section 8.2.10 of the VY Emergency Plan identifies the senior licensed individual in the TSC as assuming the role of Decision Maker during implementation of Severe Accident Management (SAM). Section 2.3 of Attachment 3 (Operations Coordinator) of EPOP-TSC-3542 instructs the Operations Coordinator in the TSC to assume the duty of the SAM Decision Maker if it is determined that the emergency requires implementation of SAM. Revision of the Emergency Plan to refer to the Operations Coordinator in the TSC and to plant procedures rather than the senior licensed individual in the TSC and the SAM Guideline is editorial in nature and no further evaluation is required with respect to this change.

Appendix B: The revision to Appendix B, "Emergency Equipment," of the Site Emergency Plan to update procedure number OP 3506 to EPOP-EQUIP-3506 does not impact any of the 10 CFR 50.47(b) planning standard functions or program elements listed in Part V of this form. Reference to these documents is administrative in nature and no further evaluation is required.

Appendix G: The revisions to Appendix G, "Index of Emergency Plan Implementing Procedures and Support Plans," of the Site Emergency Plan to document relocation of VY-specific information from Corporate Procedures in Section II to VY-specific procedures in Section I does not impact any of the 10 CFR 50.47(b) planning standard functions or program elements listed in Part V of this form. Additionally, the addition of new procedure EPOP-AFA-10083, Alternative Facility Activation, was added to the Emergency Plan to comply with new EP rulemaking and 10 CFR Part 50, Appendix E Section IV.E.8.d. EN-EP-309, Fatigue Management for Hurricane Response Activities, and EN-EP-606, Pandemic Flu Response, are not applicable to VY. These procedures should have not been included in the VY emergency plan and removal is an editorial change. New procedure EPOP-URI-10095, Offsite Dose Assessment using the Unified Rascal Interface, was added to the Emergency Plan to address the URI change.

Reference to these documents is administrative in nature and no further evaluation is required.

Renumbering OP 3507 to EPOP-EREC-3507, OP 3508 to EPOP-MED-3508, OP 3510 to EPOP-OSMT-3510, OP 3513 to EPOP-RAD-3513, OP 3547 to EPOP-SEC-3547, OP 3548 to EPOP-TERM-3548, AP

3712 to EPAP-TRNG-3712 does not impact any of the 10 CFR 50.47(b) planning standard functions or program elements listed in Part V of this form. The changes are administrative in nature and no further evaluation is required.

Non-Editorial Changes Not Affecting Program Elements Associated with an Emergency Planning Function

The following non-editorial changes do not affect program elements associated with an emergency planning function and no further evaluation is necessary.

Section 3.2, Actions in an Emergency, Item 5: The addition of the InForm Notification System as the primary method of performing off-site emergency notifications was evaluated in a 50.54(q) evaluation conducted in December 2013, prior to implementation of Rev. 54 of the Emergency Plan. InForm utilizes source and destination computers that communicate via the internet to send emergency notifications to the states of Vermont, New Hampshire and Massachusetts during declared emergencies and drills/exercises. Rev. 54 of the Emergency Plan revised Section 3.2 to state that notification of the three states would be made using the Emergency Notification System rather than the Nuclear Alert System. The Emergency Notification System is used to notify the NRC during an emergency. This revision changes "Emergency Notification System" to "InForm Notification System" to accurately reflect that notifications to the three states are made using InForm as evaluated in the previous 50.54(q) conducted in December 2013. This revision does not change any facilities or equipment or change any of the processes used to make emergency notifications. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Section 5.1, Notification of Unusual Event: This section of the Emergency Plan was revised to remove the reference to changes in operational status when a Notification of Unusual Event is declared. On September 23, 2013, ENO informed the NRC that VY will permanently cease operations at the end of the current operating cycle, which is expected to occur in the fourth quarter of 2014. Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, changes in operational status are no longer possible and references to operational status can be removed from the Emergency Plan. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Section 7.3, Utility Microwave and Radio System: This section of the Emergency Plan was revised to remove the discussion of notifying load dispatchers of emergency conditions at the plant. According to Section 10.18.3 of the UFSAR, Rev. 26, the microwave system provides for the interchange of information on electrical generation and transmission between the station and the electrical dispatcher. This system allows the transfer of yard switching information, power level monitoring information and voice contact between the station main control and the electrical system dispatching offices. Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, potential disruptions to the electrical grid due to an emergency condition at VY are no longer possible. As a result, the need to contact load dispatchers in the event of an emergency at VY no longer exists. The Microwave System will remain in place and serve as a backup means to provide updates of plant conditions to NRC Region I if the commercial telephone system fails. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Table 7.1, Vermont Yankee Emergency Communications Matrix: The addition of the InForm Notification

System as the primary method of performing off-site emergency notifications was evaluated in a 50.54(q) evaluation conducted in December 2013, prior to implementation of Rev. 54 of the Emergency Plan. InForm utilizes source and destination computers that communicate via the internet to send emergency notifications to the states of Vermont, New Hampshire and Massachusetts during declared emergencies and drills/exercises. The Emergency Notification System is used to notify the NRC during an emergency. This revision adds InForm as "11" in Table 7.1 to accurately reflect that communications with the three states include using InForm as evaluated in the previous 50.54(q) conducted in December 2013. This revision does not change any facilities or equipment or change any of the processes used to make emergency notifications. The change is administrative in nature, does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

References to Control Room Supervisor (CRS), Control Room Operator (CRO), and Auxiliary Operators (AO): Throughout the Emergency Plan, references to Control Room Supervisor (CRS), Control Room Operator (CRO) and Auxiliary Operators (AOs) have been replaced with Certified Fuel Handler (CFH) and Non-Certified Operators (NCOs). Specifically, changes have been made to Section 8.1, Table 8.4, and Figures 6.3 and 8.1. Emergency Plan changes submitted in BVY 14-018 stated, "Title changes for the CRS and CRO/AO to CFH and NCO, respectively, are dependent upon NRC approval of proposed changes to the VY Technical Specifications (BVY 13-096) that revise the minimum shift staffing requirements in the VY Technical Specifications by replacing references to licensed and non-licensed operators with references to CFHs and NCOs. The Emergency Plan submitted in BVY 14-018 addressed the pending title changes by referring to titles as "CRS/CFH" and AO/CRO/NCO" and included Note **** in Table 8.4 indicating title changes were dependent on NRC approval of BVY 13-096. This Technical Specification change was approved by the NRC by letter dated December 22, 2014 (ML14217A072). The elimination of CRS, CRO and AO titles and replacement with CFH and NCO is editorial in nature and no further evaluation is required with respect to this change.

Figure 10.1, Vermont Yankee Emergency Dose Rate Nomogram: Figure 10.1 was deleted. Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Figure 10.1 is based on the isotopic mix for a LOCA. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, a LOCA is no longer possible. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Section 11.3, Public Information: This section was revised to replace, "routine operating information, changes in plant operation," with "routine plant information, changes in plant conditions,". Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, providing "operating information or changes in plant operation is not possible. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Appendix C, Initial Offsite Dose Rate Estimation: Appendix C was deleted. Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Appendix C is based on the isotopic mix for a LOCA. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, a LOCA is no longer possible. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan.

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The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Section 8.2, Emergency Response Organization: This section was revised to delete the bullet, "Plant trip." Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Because VY will no longer be authorized to operate the reactor or place fuel within the reactor vessel, a plant trip is no longer possible. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Section 10.6, Protective Actions for Onsite Personnel: This section was revised to replace, "safely shut down the reactor" with "maintain equipment important to safe storage of spent fuel." Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Because shutting down the reactor is no longer necessary and the focus is on maintaining SFP cooling. This revision does not change any facilities or equipment or change any of the processes described in the Emergency Plan. The change does not affect program elements associated with the emergency planning functions and no further evaluation is necessary.

Non-Editorial Changes Affecting Program Elements Associated with an Emergency Planning Function

The remaining changes to Section 7.10 (Emergency Response Data System), Section 10.5.1 (Medical Treatment), Section 10.1.1 (Initial Offsite Radiological Dose Projection Capability), Section 10.1.2 (Variable Trajectory Atmospheric Dispersion/Dose Projection Capability), Section 12.1.4 (Medical Drill) and Appendix G (EN-EP-311) affect Emergency Planning Standards 10 CFR 50.47(b)(1), (2), (6), (4), (9), (10), (12), (14) and (15) and planning elements 1, 2, 3, 7, 11, 17, 18, 22, 24 and 27 in Part V of this form. These changes are associated with the elimination of the reference to the Medical Response Team and replacement of the existing Offsite Dose Projection System (ODPS) and METPAC dose assessment software with the Unified Rascal Interface (URI). URI will become the primary site specific dose assessment software for Vermont Yankee. A 10 CFR 50.54(q) Evaluation will be performed to determine whether the changes result in a reduction in effectiveness of the Emergency Plan requiring prior NRC approval.

A separate 50.54(q) evaluation will be performed to determine whether the retirement of ERDS results in a reduction in effectiveness of the Emergency Plan requiring prior NRC approval. If the 50.54(q) analysis determines the elimination of ERDS is not a reduction in effectiveness of the VY Emergency Plan, the subsequent elimination of EN-EP-311 is administrative in nature and no further evaluation is necessary.

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Part VI. Signatures:		
Preparer Name (Print) David L. Daigle	Preparer Signature	Date: 01/27/2015
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Tom Sowdon Nuclear EP Project Manager	Reviewer Signature	Date: 1-27-2015
Approver Name (Print) Mike McKenney EP manager or designee	Approver Signature	Date 1/27/15

Procedure/Document Number: Emergency Plan	Revision: 55
Equipment/Facility/Other: Vermont Yankee	
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Part I. Description of Proposed Change:

The VY Emergency Plan is being revised to eliminate reference to the Medical Response Team and to replace the existing Offsite Dose Projection System (ODPS) and METPAC dose assessment software with the Unified Rascal Interface (URI). URI will become the primary site specific dose assessment software for Vermont Yankee.

This evaluation assesses the following changes to the Vermont Yankee Emergency Plan resulting from the proposed elimination of the Medical Response Team:

Section 10.5.1, Medical Treatment

- Replaced, "Medical Response Team members are trained in accordance with station procedures." with "Medical response is provided by on-shift Fire Brigade members trained in basic first-aid and Cardiopulmonary resuscitation (CPR)."

Section 12.1.4, Medical Drills

- Replaced, "To evaluate the training of the facility's medical response team and offsite medical response..." with "To evaluate the training of the facility's medical response and offsite medical response..."

This evaluation assesses the following changes to the Vermont Yankee Emergency Plan resulting from the replacement of ODPS and METPAC with URI:

Section 10.1.1, Initial Offsite Radiological Dose Projection Capability

- Deleted Section

Section 10.1.2, Variable Trajectory Atmospheric Dispersion

- Removed, "Once the EOF/RC is activated," in the first sentence of first paragraph
- Removed "Gaussian," in the second sentence of first paragraph
- Removed, "the same" in first sentence of second paragraph
- Removed, "used by the model described in Section 10.1.1" in first sentence of second paragraph
- Deleted third and fourth paragraph

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

Medical Response Team

The UFSAR (Rev. 26), Technical Specifications (Rev. 271), Technical Requirements Manual (TRM) (Rev. 53) and Offsite Dose Calculation Manual (ODCM) (Rev. 35) were reviewed as part of this analysis. The documents were searched for the following keywords:

- Medical and Medical Response

Additionally, the Licensing Research System (LRS) and the Emergency Plan (Rev. 53 and Rev. 54) were searched for relevant information using the same keywords identified above and no relevant results were found.

The following summarizes the findings of the review.

UFSAR (Rev. 26)

The UFSAR contains no references to medical response or the Medical Response Team.

Technical Specifications (Rev. 271)

The TS contain no references to medical response or the Medical Response Team.

Technical Requirements Manual (Rev. 53)

The TRM contains no references to medical response or the Medical Response Team.

Offsite Dose Calculation Manual (ODCM) (Rev. 35)

The ODCM contains no references to medical response or the Medical Response Team.

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Emergency Plan (Rev. 53 and 54)

Section 10.5.1 states that Medical Response Team members are trained in accordance with station procedures. Section 12.1.4 states that to evaluate the training of the medical response team and offsite medical response (ambulance and hospital), a medical drill is conducted annually with a simulated contaminated injured individual.

Unified Rascal Interface

The method used to perform dose assessment is discussed in Section 10 of the Emergency Plan and the Emergency Plan Implementing Procedures. A detailed comparison between METPAC/ODPS and URI is provided in Attachment 1.

In accordance with EN-LI-110, the licensing management system used for tracking NRC commitments was searched for items relating to the keywords METPAC, ODPS, and dose assessment. BVY 13-059, "Commitment for Implementation of Multi-source Dose Assessment Capability", was found. URI meets this commitment by providing an automated method for performing a multi-source dose consequences analysis.

Part III. Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC:

Previous Commitments to the NRC - Per EN-LI-110, the licensing management system used for tracking NRC commitments (LRS) was searched as described in Part II and the results are described in Part II, above.

Applicable Regulations:

Medical Response Team

10 CFR 50.47(b)(1) - Assignment of Responsibility/Organizational Control: *Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.*

10 CFR 50.47(b)(2) - Onsite Emergency Organization: *On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.*

10 CFR Part 50, Appendix E Section IV.A – Organization: *The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:*

1. A description of the normal plant operating organization.

2. A description of the onsite emergency response organization (ERO) with a detailed discussion of:

a. Authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;

b. Plant staff emergency assignments;

c. Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures.

3. A description, by position and function to be performed, of the licensee's headquarters personnel who will be sent to the plant site to augment the onsite emergency organization.

4. Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making offsite dose projections, and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, and other appropriate governmental entities.

5. Identification, by position and function to be performed, of other employees of the licensee with special qualifications for coping with emergency conditions that may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for emergencies shall also be identified. The special qualifications of these persons shall be described.

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6. A description of the local offsite services to be provided in support of the licensee's emergency organization.

7. By June 23, 2014, identification of, and a description of the assistance expected from, appropriate State, local, and Federal agencies with responsibilities for coping with emergencies, including hostile action at the site. For purposes of this appendix, "hostile action" is defined as an act directed toward a nuclear power plant or its personnel that includes the use of violent force to destroy equipment, take hostages, and/or intimidate the licensee to achieve an end. This includes attack by air, land, or water using guns, explosives, projectiles, vehicles, or other devices used to deliver destructive force.

8. Identification of the State and/or local officials responsible for planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.

9. By December 24, 2012, for nuclear power reactor licensees, a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan.

***10 CFR 50.47(b)(12) – Emergency Medical Support:** Arrangements are made for medical services for contaminated injured individuals.*

***10 CFR 50.47(b)(14) – Drills and Exercises:** Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.*

***10 CFR 50.47(b)(15) – Emergency Responder Training:** Radiological emergency response training is provided to those who may be called on to assist in an emergency.*

***10 CFR Part 50, Appendix E Section IV.E (5-7) – Emergency Facilities and Equipment:** Adequate provisions shall be made and described for emergency facilities and equipment, including:*

5. Arrangements for medical service providers qualified to handle radiological emergencies onsite;

6. Arrangements for transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary;

7. Arrangements for treatment of individuals injured in support of licensed activities on the site at treatment facilities outside the site boundary;

10 CFR Part 50, Appendix E Section IV.F (1-2) – Training:

1. The program to provide for: (a) The training of employees and exercising, by periodic drills, of emergency plans to ensure that employees of the licensee are familiar with their specific emergency response duties, and (b) The participation in the training and drills by other persons whose assistance may be needed in the event of a radiological emergency shall be described. This shall include a description of specialized initial training and periodic retraining programs to be provided to each of the following categories of emergency personnel:

vi. First Aid and rescue teams

vii. Medical support personnel

2. The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, test the public alert and notification system, and ensure that emergency organization personnel are familiar with their duties.

Site Compliance: The licensee organizational description, staffing levels and assignment of responsibilities required by 10 CFR 50.47(b)(1) and (2) and Section IV.A of Appendix E are delineated in Section 8.0 of the VY Emergency Plan, Table 8.4, "Minimum Staffing Requirements for the ENVY ERO," and VY Technical Specification Section 6.0. The Emergency Response Organization (ERO) is described in Section 8.2 of the VY Emergency Plan. In Table 8.4, first aid responsibilities are assigned to the Fire Brigade. The VY On-Shift Staffing Analysis Report, Rev. 1 (December 19, 2013) and the VY Analysis of Proposed Post-Shutdown On-Shift Staffing submitted to the NRC in Proposed Changes to the Vermont Yankee Emergency Plan (BVY 14-018), developed in accordance with NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities" (NEI 10-05), do not consider the Medical Response Team in the analyses because the Medical Response Team is not onsite on a 24-hour per day basis. In accordance with NEI

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10-05 section 2.6, the analyses included a review of rescue operations and first aid response, although neither task was required during the evaluated scenarios. Additionally, the analyses state that the station fire brigade staff is trained in first aid and rescue operations and is available to perform these tasks if required, on a 24-hour per day basis. First aid and rescue operations are acceptable collateral duties per the guidance provided in NEI 10-05.

Medical support for contaminated individuals, as required by 10 CFR 50.47(b)(12) and Section IV.E of Appendix E is delineated in Section 10.5 of the VY Emergency Plan.

Training for first aid and medical response, required by 10 CFR 50.47(b)(15) and Section IV.F of Appendix E, is delineated in Sections 10.5 and 12.1.4. Section 10.5.1 states that Medical Response Team members are trained in accordance with station procedures. Section 10.5.2 addresses arrangements to transport contaminated injured individuals offsite for treatment. Section 12.1.4 states that to evaluate the training of the medical response team and offsite medical response (ambulance and hospital), a medical drill is conducted annually with a simulated contaminated injured individual.

The emergency plan and its implementing procedures will continue to assign responsibilities for medical response. With respect to training for medical support personnel, the requirement for medical response personnel to successfully complete an EMT Course exceeds the guidance contained in NUREG-0654-FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (NUREG-0654)." This level of training represents a self-imposed commitment that exceeds regulatory standards and requirements. Because the training provided for medical response personnel will continue to meet or exceed the Red Cross Multi-Media training identified in NUREG-0654 Planning Standard O, Evaluation Criteria 3, the proposed changes to eliminate the requirement for medical response personnel to complete an EMT course and the subsequent changes to Sections 10.5.1 and 12.1.4 of the VY Emergency Plan continue to comply with the VY Emergency Plan, Technical Specifications and applicable regulations.

Unified Rascal Interface

10 CFR 50.47(b)(4) – Emergency Classification System: *A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.*

Site Compliance: URI, like METPAC/ODPS, is a dose assessment tool which can be used to determine if any Emergency Action Levels (EALs) have been reached or exceeded. The two Vermont Yankee EALs that are tied to dose assessment are AG1.2 and AS1.2. The EAL thresholds are based on exceeding the EPA PAGs or 10% of the EPA PAGs, respectively, at or beyond the site boundary. The EALs do not delineate the method for determining the calculated dose to the public. URI is an acceptable means of calculating off-site dose due to a radioactive release because it estimates the plume's isotopic content and performs the requisite dose calculations for TEDE and CDE thyroid. Implementation of URI will not affect the classification and emergency action level scheme as described in NEI 99-01, Revision 5 and continues to comply with this planning standard. Attachment 1 provides a more detailed discussion of why this regulatory standard will continue to be met upon implementation of this change.

10 CFR 50.47(b)(9) – Emergency Assessment Capability: *Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.*

Site Compliance: A Radiological Assessment Coordinator with a Health Physics and effluents background performed representative practical exercises on URI and METPAC/ODPS. The data produced by URI, although not identical to those of METPAC/ODPS because the URI model is state-of-the-art, showed results and projected plume trajectory that are comparable to that produced by METPAC/ODPS. URI incorporates site-specific terrain, release pathways, process reduction factors, filter efficiencies, monitor response information, meteorological tower features, and other data associated with Vermont Yankee. Therefore, implementation of URI is in compliance with this planning standard. Attachment 1 provides a more detailed discussion of why this regulatory standard will continue to be met upon implementation of this change.

10 CFR 50.47(b)(10) – Protective Actions: *A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate.*

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Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Site Compliance: In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI) when appropriate. Evacuation time estimates have been developed and are updated on a periodic basis. Guidelines for the choice of protective actions during an emergency appropriate to the locale and consistent with Federal guidance are in place. Implementation of URI does not affect the mechanism for recommending protective actions to state or local authorities because it does not alter the Protective Action Recommendation process currently used at Vermont Yankee. Therefore, implementation of URI is in compliance with this planning standard. Attachment 1 provides a more detailed discussion of why this regulatory standard will continue to be met upon implementation of this change.

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change:

Medical Response Team

10 CFR 50.47(b)(1) - Assignment of Responsibility/Organizational Control

- Responsibility for emergency response is assigned.
- The response organization has the staff to respond and to augment staff on a continuing basis (i.e., 24/7 support).

Sections IV.A.1–IV.A.9 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.A of NUREG-0654 and the licensee's emergency plan.

10 CFR 50.47(b)(2) - Onsite Emergency Organization

- The process ensures that onshift emergency response responsibilities are staffed and assigned.
- The process for timely augmentation of onshift staff is established and maintained.

Sections IV.A.2.a–c, IV.A.3, and IV.C of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.B of NUREG-0654 and the licensee's emergency plan.

10 CFR 50.47(b)(12) - Emergency Medical Support

- Arrangements are made for medical services for contaminated, injured individuals.

Sections IV.E.5–7 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.L of NUREG-0654 and the licensee's emergency plan.

10 CFR 50.47(b)(14) – Drill and Exercise Program

- A drill and exercise program (including radiological, medical, health physics, and other program areas) is established.
- Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills, are assessed via a formal critique process in order to identify weaknesses.
- Identified weaknesses are corrected.

Sections IV.F.1–2 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.N of NUREG-0654 and the licensee's emergency plan..

10 CFR 50.47(b)(15) - Emergency Responder Training

- Training is provided to emergency responders.

Sections IV.F.1–2 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.O of NUREG-0654 and the licensee's emergency plan.

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Unified Rascal Interface

10 CFR 50.47(b)(4) – Emergency Classification System

- A standard scheme of emergency classification and action levels is in use.

Sections IV.B and IV.C of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.D of NUREG-0654 and the Emergency Plan.

10 CFR 50.47(b)(9) – Emergency Assessment Capability

- Methods, systems, and equipment for assessment of radioactive releases are in use.

Sections IV.B and IV.E.2 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.I of NUREG-0654 and the Emergency Plan.

10 CFR 50.47(b)(10) – Protective Actions

- A range of public PARs is available for implementation during emergencies.
- Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.
- A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.

Appendix E to 10 CFR 50 does not contain any support requirements. Informing criteria appear in Section II.J.1–8, Section II.J.10, and Supplement 3 of NUREG-0654 as well as the Emergency Plan.

Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:

Medical Response Team

Currently, the VY Emergency Plan refers to the Medical Response Team and indicates it provides onsite medical treatment. However, the Medical Response Team is not onsite on a 24-hour per day basis and VY's current on-shift staffing analysis and the on-shift staffing analysis for the proposed post-shutdown on-shift staffing proposed in BVY 14-018 do not consider the presence of the Medical Response Team. In VY Emergency Plan Table 8.4, first aid responsibilities are assigned to the Fire Brigade. The proposed changes to Section 10.5.1 and 12.1.4, revise these sections consistent with Table 8.4 and the responsibilities assigned in the VY staffing analyses.

Unified Rascal Interface

Currently, Section 10.1.1 (Initial Offsite Radiological Dose Projection Capability) of the VY Emergency Plan addresses the initial evaluation of offsite radiological conditions using the ODPS. The revisions to the Emergency Plan will eliminate reference to the ODPS. Section 10.1.2, refers to the "model described in Section 10.1.1" when describing the model dose projection capabilities. Section 10.1.2 will eliminate references to Section 10.1.1 while continuing to provide an appropriate description of dose assessment capabilities.

Regulatory Guide 1.219, "Guidance On Making Changes To Emergency Plans For Nuclear Power Reactors" provides guidance for determining reductions in effectiveness. Section 1.8 states:

The 10 CFR 50.54(q) change process establishes a two-factor test to determine when a change to an emergency plan requires prior NRC approval. First, the test assesses whether the emergency plan, as modified, would continue to comply with the planning standards in 10 CFR 50.47(b) or the requirements in Appendix E to 10 CFR Part 50. Second, the test assesses whether the proposed change would reduce the effectiveness of the emergency plan. These two tests are separate and distinct. If the licensee does not meet either test, it must obtain prior NRC approval. Meeting the first

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test does not imply that the licensee has met the second test, nor does meeting the second test imply that the licensee has met the first test.

REGULATORY GUIDE 1.219 TEST PART 1: (Does the change comply with regulations?)

Medical Response Team

The licensee organizational description, staffing levels and assignment of responsibilities required by 10 CFR 50.47(b)(1) and (2) and Section IV.A of Appendix E are delineated in Section 8.0 of the VY Emergency Plan, Table 8.4, "Minimum Staffing Requirements for the ENVY ERO," and VY Technical Specification Section 6.0. The Emergency Response Organization (ERO) is described in Section 8.2 of the VY Emergency Plan. In Table 8.4, first aid responsibilities are assigned to the Fire Brigade. The current VY On-Shift Staffing Analysis Report, Rev. 1 (December 19, 2013) and the VY analysis presented in BVY 14-018, developed in accordance with NEI 10-05, do not consider the Medical Response Team in the analyses because the Medical Response Team is not onsite on a 24-hour per day basis. In accordance with NEI 10-05 section 2.6, the analyses included a review of rescue operations and first aid response, although neither task was required during the evaluated scenarios. Additionally, the analyses state that the station fire brigade staff is trained in first aid and rescue operations and is available to perform these tasks if required, on a 24-hour per day basis. First aid and rescue operations are acceptable collateral duties per the guidance provided in NEI 10-05.

Medical support for contaminated individuals, as required by 10 CFR 50.47(b)(12) and Section IV.E of Appendix E is delineated in Section 10.5 of the VY Emergency Plan.

Training for first aid and medical response, required by 10 CFR 50.47(b)(15) and Section IV.F of Appendix E, is delineated in Sections 10.5 and 12.1.4. Section 10.5.1 states that Medical Response Team members are trained in accordance with station procedures. Section 10.5.2 addresses arrangements to transport contaminated injured individuals offsite for treatment. Section 12.1.4 states that to evaluate the training of the medical response team and offsite medical response (ambulance and hospital), a medical drill is conducted annually with a simulated contaminated injured individual. The station fire brigade staff is trained in first aid and rescue operations and is available to perform these tasks if required, on a 24-hour per day basis.

Unified Rascal Interface

The method used to perform dose assessment is discussed in Section 10 of the Emergency Plan and the Emergency Plan Implementing Procedures. A detailed comparison between METPAC/ODPS and URI is provided in Attachment 1. Attachment 1 contains a detailed effectiveness review of this change including a description of the underlying calculation engine from RASCAL, discussion of the differences between the two dose assessment models, assessment of the impact of the changes to the planning standards, and other supporting information.

REGULATORY GUIDE 1.219 TEST PART 2: (Is the change a reduction in effectiveness?)

Medical Response Team

The emergency plan and its implementing procedures will continue to assign responsibilities for medical response. With respect to medical support personnel, VY's use of the Medical Response Team exceeds the guidance contained in NUREG-0654-FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (NUREG-0654)." This level of response represents a self-imposed commitment that exceeds regulatory standards and requirements. Because the medical response continues to comply with applicable regulations and training provided for medical response personnel will continue to meet or exceed the Red Cross Multi-Media training identified in NUREG-0654 Planning Standard O, Evaluation Criteria 3, the proposed changes to eliminate the Medical Response Team and the subsequent changes to Sections 10.5.1 and 12.1.4 of the VY Emergency Plan continue to comply with the VY Emergency Plan, Technical Specifications and applicable regulations.

Because the Medical Response Team is not onsite 24-hours per day, VY's current on-shift staffing analysis and the analysis for the proposed post-shutdown on-shift staffing proposed in BVY 14-018 do not consider the presence of the Medical Response Team, and VY Emergency Plan Table 8.4 assigns first aid responsibilities to the Fire Brigade, the proposed change to eliminate the Medical Response Team continues to comply with the applicable requirements contained in 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. This change continues to align with the requirements of Appendix E to 10 CFR Part 50 and does not represent a reduction in the effectiveness of the Emergency Plan and can be implemented without prior NRC approval.

10CFR50.54(q) EVALUATION

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The impact of the proposed changes will be to improve the ability of Vermont Yankee to protect the health and safety of the public by providing an improved process to calculate estimates of offsite airborne concentrations and dose rates including those resulting from multiple release points. Attachment 1 contains a detailed effectiveness review of this change including a description of the underlying calculation engine from RASCAL, discussion of the differences between the two dose assessment models, assessment of the impact of the changes to the planning standards, and other supporting information.

Adopting URI as the primary dose assessment software continues to comply with the planning standards outlined in 10 CFR 50.47 (b) 4, 9, and 10. Replacing METPAC/ODPS with URI is not a reduction in the effectiveness of the Emergency Plan and can be incorporated without prior NRC approval.

Part VI. Evaluation Conclusion

Answer the following questions about the proposed change.

1. Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	☒YES ☐ NO
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	☒YES ☐ NO
3. Does the proposed change constitute an emergency action level scheme change?	☐YES ☒ NO

If questions 1 or 2 are answered NO, or question 3 answered YES, reject the proposed change, modify the proposed change and perform a new evaluation or obtain prior NRC approval under provisions of 10 CFR 50.90. If questions 1 and 2 are answered YES, and question 3 answered NO, implement applicable change process(es). Refer to step 5.6[8].

Part VII. Signatures

Preparer Name (Print) David L. Daigle	Preparer Signature	Date: 01/26/2015
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Tom Sowdon Nuclear EP Project Manager	Reviewer Signature	Date: 1-26-2015
Approver Name (Print) MP McKenney EP Manager or designee	Approver Signature	Date: 1/27/15

Attachment 1

Description of the URI/RASCAL Underlying Implementation

The Unified RASCAL Interface (URI) computer program is a new dose assessment program based on the calculation engine of the NRC code RASCAL. This dose assessment program will replace the site-specific dose assessment codes currently in use at Vermont Yankee. This 50.54(q) evaluation will evaluate the following attributes of URI.

- The Unified RASCAL Interface (URI) dose assessment computer program
- The URI Requirements Specification
- The URI Requirements Specification Annex for Vermont Yankee
- The RASCAL Interface Technical Resource Kit
- The URI Maintenance Computer Program

The reason for the change is to implement the new atmospheric dispersion models of RASCAL that offer a streamlined user interface utilizing instrumentation and terminology available at the site. The new dispersion models used in the NRC's RASCAL code have been extensively verified and validated as referenced in Section 4.10 of the RASCAL 4, "Description of Models and Methods", June 2, 2010. The RASCAL dispersion models provide a more accurate depiction of plume dispersion as compared to the Department of Energy MESODIF-II methodology currently employed by the Meteorological Plant Access Computer (METPAC). The new dispersion models will ensure a more accurate estimate of the dose to the public when compared to METPAC/ODPS.

URI consists of the following dose assessment methodologies.

Rapid Assessment: Can be used by the on-shift dose assessor to perform dose assessments with minimal information available. Rapid Assessment includes assessment methodologies using effluent monitors, containment high range area monitors and pre-determined fuel damage estimates. The decision for on-shift personnel to use the rapid assessment instead of the detail assessment has not been made at this time.

Detailed Assessment: is used by the augmented emergency response staff in the TSC or EOF where a much greater degree of source term and plant status information will be available to perform more refined assessments. Detailed Assessment includes assessment methodologies using effluent monitors, containment high range area monitors, fuel damage estimates, effluent sample results, and field team results.

URI consists of a front and back end interface to the NRC's RASCAL computer code. In its simplest form the URI code operates as follows.

1. Based on user input the program calculates a release rate for a given set of isotopes and produces a file formatted to meet the RASCAL input requirements.
2. Based on user input the program creates a meteorological data file formatted to meet the RASCAL input requirements.
3. The RASCAL meteorological processor is invoked.
4. The RASCAL dose processors are invoked producing files containing results that include
    - Exposure Rates
    - Doses due to External Shine, Inhalation, and Deposition
    - Airborne Iodine Concentrations
    - TEDE and CDE Thyroid Dose
5. The URI program reads the RASCAL output files containing the calculated data and displays the data in standard reports and forms.

Details related to the actual process are delineated in the URI Requirements Specification document.

Because the individual URI site computer programs utilize an external encrypted xml format data file, an additional computer program referred to as the maintenance program exists. This program is used to maintain pertinent information within a database related to the site and to generate the encrypted file when changes to the underlying data are made. This program only creates a data file used by the URI programs; it does not actually perform dose assessment functions.

Program Requirements

50.47(b)(4) A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

NUREG-0654 II.D

1. An emergency classification and emergency action level scheme as set forth in Appendix 1 must be established by the licensee. The specific instruments, parameters, or equipment status shall be shown for establishing each emergency class in the in-plant emergency procedures. The plan shall identify the parameter values and equipment status for each emergency class.

50.47(b)(9) Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

NUREG-0654 II.I

1. Each licensee shall identify plant system and effluent parameter values characteristic of a spectrum of off-normal conditions and accidents, and shall identify the plant parameter values or other information which correspond to the example initiating conditions of Appendix 1. Such parameter values and the corresponding emergency class shall be included in the appropriate facility emergency procedures. Facility emergency procedures shall specify the kinds of instruments being used and their capabilities.

2. Onsite capability and resources to provide initial values and continuing assessment throughout the course of an accident shall include post-accident sampling capability, radiation and effluent monitors, in-plant iodine instrumentation, and containment radiation monitoring in accordance with NUREG-0578, as elaborated in the NRC letter to all power reactor licensees dated October 30, 1979.

3. Each licensee shall establish methods and techniques to be used for determining:

    a. the source term of releases of radioactive material within plant systems. An example is the relationship between the containment radiation monitor(s) reading(s) and radioactive material available for release from containment.

    b. the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.

4. Each licensee shall establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.

5. Each licensee shall have the capability of acquiring and evaluating meteorological information sufficient to meet the criteria of Appendix 2. There shall be provisions for access to meteorological information by at least the near-site Emergency Operations Facility, the Technical Support Center, the Control Room, and an offsite NRC center. The licensee shall make available to the State suitable meteorological data processing interconnections which will permit independent analysis by the State, of facility generated data in those States with the resources to effectively use this information.

6. Each licensee shall establish the methodology for determining the release rate/projected doses if the instrumentation used for assessment is offscale or inoperable.

7. Each organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone which are an intrinsic part of the concept of operations for the facility.

8. Each organization, where appropriate, shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment and estimated deployment times.

9. Each organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10^{-7} µci/cc (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.

10. Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water and air activity levels) to dose rates for key isotopes (i.e., those given in Table 3, page 18) and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures.

50.47(b)(10) A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

NUREG-0654 II.J

7. Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the population-at-risk, in accordance with Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-520/1-75-001). As specified in Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.

Change Comparison

URI represents an improvement over METPAC/ODPS. The URI dose assessment program retains all of the site specific parameters and inputs that were common to the METPAC/ODPS program. Therefore, there are no changes to site specific parameters and inputs that impact compliance with the program requirements above. A site specific analysis was performed to validate and verify all release pathways. Monitors and release paths used for dose projections by METPAC/ODPS continue to be used by URI.

The URI dose assessment program uses RASCAL 4.2 to perform all estimates of atmospheric dispersion. RASCAL 4.2 uses the RATCHET (Regional Atmospheric Transport Code for Hanford Emission Tracking) model which is based on the MESODIF model employed by METPAC/ODPS. The RATCHET code implements a Lagrangian trajectory, Gaussian puff dispersion model. Transport, diffusion, and deposition of material in the puffs are controlled by wind, atmospheric stability, precipitation, and mixing-layer depth fields that describe the spatial and temporal variations of meteorological conditions throughout the domain.

Attachment 1

The methodology for calculating diffusion coefficients in RATCHET uses the turbulence parameters sigma v and sigma w. Sigma v is the standard deviation of the fluctuation of the horizontal component of the wind vector perpendicular to the mean wind direction. Sigma w is the standard deviation of the vertical component of the wind vector. RATCHET therefore calculates the dispersion parameters as needed based on current atmospheric and surface conditions. Because of this, the dispersion parameters are a function of time and not distance like the classic Pasquill-Gifford curves.

URI uses the RASCAL TADPLUME40.dll and TADPUFF40.dll computer files to calculate dose. As such, the dose conversion factors have changed when compared to those used in METPAC/ODPS. The dose conversion factors used in RASCAL are based primarily on Federal Guidance Report Number 11 and Federal Guidance Report Number 12, "External Exposure to Radionuclides in Air, Water, and Soil". Federal Guidance Report Number 12 is a newer reference than DOE 1988 and therefore has updated dose conversion factors.

RASCAL is a sophisticated model that performs calculations for cloud shine dose doing actual integrations over the model domain.

The RATCHET Code has been validated in a number of tests. The algorithms used have been extensively reviewed by leading experts in the field including the National Academy of Sciences. As documented in section 4.10 of the RASCAL Manual, the reasons the RATCHET algorithms were used in RASCAL is that the RATCHET code has received extensive peer review and validation. The RATCHET code has also been validated against actual releases. The Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Working Group compared RASCAL 4.0 and 4.1 against Turbo FRMAC 2010 and found RASCAL 4.0 and 4.1 to be consistent with Turbo FRMAC 2010.

Another study of different dose models was performed in NUREG/CR-6853, "COMPARISON OF AVERAGE TRANSORT AND DISPERSION AMONG A GAUSSIAN, A TWO-DIMENSIONAL AND A THREE-DIMENSIONAL MODEL", October 2004. Some of the codes used for comparison were RATCHET, an older version of RASCAL, and a simplified Gaussian model, MACCS2. In this particular test, each model was run to produce the annual average integrated exposure and deposition for a series of rings from 10 to 100 miles from a hypothetical release. The conclusion from these studies, as referenced in the current RASCAL Manual, shows that RASCAL 4 which uses RATCHET produces lower doses on average than RASCAL 3.0.5.

Implementing the RACHET code also significantly improves the modeling of calm (wind speeds less than 1 mph) weather conditions. URI uses RASCAL's meteorological processor and dose processors. This incorporates the use of multiple meteorological off-site towers and topographical data. In 1977, the American Meteorological Society Committee on Atmospheric Turbulence and Diffusion estimated the upper limit of accuracy for diffusion models to be about a factor of two under conditions where the meteorological parameters controlling diffusion are measured near the point of release and where topographic relief is minimal. A greater uncertainty approaching a factor of 10 was established for conditions when the wind speed decreases toward calm. As previously stated, implementing calm weather conditions was one of the benefits of implementing the URI interface to RASCAL which uses the RACHET code.

The algorithms and methods used for dispersion and dose calculation are the same as those used in RASCAL and therefore have been evaluated and benchmarked against other methodologies. Testing has been performed to ensure that the specific URI version produces reasonable results when compared to RASCAL.

There are three main reasons for changing Vermont Yankee's dose assessment program from METPAC/ODPS to URI. First, METPAC/ODPS is a DOS based program which cannot be run in the current Windows environment and is no longer supported or maintained by the vendor that designed it. Second, METPAC/ODPS's noble gas release mixtures are based on a LOCA I category which uses the mixture expected from the release of primary coolant at equilibrium concentrations with one percent failed fuel and a LOCA III category which uses the mixture expected from some degree of core damage that has resulted in a rapid release of fission products into reactor coolant. These are not applicable to a permanently defueled plant where the spent fuel pool and Independent Spent Fuel Storage casks are the sources of a release to the environment. Finally, URI is capable of automated multi-source dose assessment while METPAC/ODPS is not.

Change Assessment

50.47(b)(4) A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

NUREG-0654 II.D

1. **An emergency classification and emergency action level scheme as set forth in Appendix 1 must be established by the licensee. The specific instruments, parameters or equipment status shall be shown for establishing each emergency class, in the in-plant emergency procedures. The plan shall identify the parameter values and equipment status for each emergency class.**

Implementation of URI will not affect the classification and emergency action level scheme as described in NEI-99-01. URI, like METPAC/ODPS, is a dose assessment model used as a tool to determine if an emergency classification has been exceeded. Vermont Yankee has two EALs that are tied to dose assessment. The thresholds for EALs AG1.2 and AS1.2 are based on exceeding the EPA PAGs or 10% of the EPA PAGs for TEDE or thyroid CDE, respectively, at or beyond the site boundary. The EALs do not delineate the method for determining the calculated dose to the public. URI is an acceptable means of calculating off-site dose due to a radioactive release because it estimates the plume's isotopic content and performs the requisite dose calculations for TEDE and thyroid CDE.

Implementation of URI does not affect the EAL scheme or thresholds and continues to comply with this planning standard.

50.47(b)(9) Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

NUREG-0654 II.I

1. **Each licensee shall identify plant system and effluent parameter values characteristic of a spectrum of off-normal conditions and accidents, and shall identify the plant parameter values or other information which correspond to the example initiating conditions of Appendix 1. Such parameter values and the corresponding emergency class shall be included in the appropriate facility emergency procedures. Facility emergency procedures shall specify the kinds of instruments being used and their capabilities.**

URI is structured so that all pertinent effluent monitors and radiation monitors that may provide an early indication of off normal conditions are available as inputs to perform dose assessment. URI provides methods to limit the entered value for each monitor used in an assessment along with other limiting functions such as not allowing assessments to be performed using non-pertinent data points or information. Implementation of URI/RASCAL supports spent fuel as well as ISFSI accidents and continues to comply with this planning standard.

2. **Onsite capability and resources to provide initial values and continuing assessment throughout the course of an accident shall include post-accident sampling capability, radiation and effluent monitors, in-plant iodine instrumentation, and containment radiation monitoring in accordance with NUREG-0578, as elaborated in the NRC letter to all power reactor licensees dated October 30, 1979.**

URI is structured so that all spent fuel and ISFSI accident instrumentation is available for input into the dose assessment model. Implementation of URI/RASCAL continues to comply with this planning standard.

3. Each licensee shall establish methods and techniques to be used for determining:

a. the source term of releases of radioactive material within plant systems. An example is the relationship between the containment radiation monitor(s) reading(s) and radioactive material available for release from containment.

Spent Fuel Accident

In the case of a spent fuel accident, source terms are available for the fuel being underwater, partially uncovered, or dry. If the fuel is underwater, the fuel is assumed to be cooled and the only damage to would be to the cladding. Percentage of damage is limited to the design basis accident event described in Vermont Yankee's UFSAR. This value is described in detail in the Vermont Yankee URI Site Annex.

If the fuel is partially uncovered or dry, it is assumed that the zircalloy cladding has ignited and 100% of the fuel from a standard core is involved in this type of accident. The source term is adjusted accordingly based on the 100% MWth power using the uCi/MWth values described in the Reactor Core Accident section of the Vermont Yankee URI Site Annex.

Available release activities for each isotope are adjusted by spent fuel release fractions associated with the status of the fuel (under water or exposed to air). Release fractions for spent fuel were obtained from Table 2.1 of the RASCAL 4: Description of Models and Methods document and Table 3.2 of NUREG/CR-6451.

Release Point Sample Analysis Results

An additional source term is available based on a user entered release rate or concentration for each of the 33 isotopes of interest. These values are obtained based on actual samples at the release point to the environment. Since the actual values cannot be pre-determined, the user is required to enter these values manually. Doing so over-rides any assumed mixtures based on pre-determined values. Any values not entered are assumed to be 0.

Field Team Survey Results

Values for collection and counting efficiency of the instruments used at Vermont Yankee are incorporated into the calculation. A conversion factor derived by dividing the EPA-400 CDE thyroid factor of 1.3 E+06 by the EPA-400 breathing rate of 1.2 E+06 is then applied to the field monitoring team data to perform the dose assessment.

Implementation of URI/RASCAL uses a source term that supports spent fuel as well as ISFSI accidents which continues to comply with this planning standard.

3. Each licensee shall establish methods and techniques to be used for determining:

b. the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.

URI has the capability to utilize data from installed effluent monitors or portable instrumentation to determine the magnitude of a release. Monitor readings are converted to release rates for each isotope based on a predetermined monitor conversion factor. Conversion factors are based on the isotopes used for each monitor's calibration. Monitor responses can be further adjusted based on isotopic correction factors or time dependent correction factors due to expected changes in effluent isotopic mixture ratios resulting from radioactive decay.

URI also applies factors which reduce the particulate and Iodine release rates due to mechanical processes such as hold-up times and ventilation filtration. These functions are related to the pathway that the effluent takes from its source to the environment. These mechanical processes can have a significant effect on the total activity released to the environment. All the reduction factors are assumed to operate on all radionuclides except noble gases. None of the reduction factors reduce the activity of the noble gas release to the environment. All nuclides subject to a given reduction mechanism are assumed to have the same reduction factor. Radioiodines are treated the same as all other non-noble gas nuclides. These are the same assumptions described in Section 1.4 of the RASCAL 4: Description of Models and Methods document.

URI uses the NUREG-1228 pathways as a starting point. URI expands on these to make it easier to identify the pathway of interest without having to interpret mechanical processes that might or might not be applicable to the actual pathway the effluent is taking to the environment. The number of decisions needed to apply mechanical process has been streamlined to only those applicable to the actual conditions.

Implementation of URI/RASCAL allows for adjustment of the magnitude of a release based on system parameters which is considered an enhancement to the dose assessment process. Its use continues to comply with this planning standard.

4. **Each licensee shall establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.**

URI provides methodologies for calculating release rates using release point effluent monitors. The Monitored Release methodology uses conversion factors for each release point to determine an equivalent gross concentration or release rate depending on how the data is delivered from the Plant Data System. URI can do additional calculations using individual isotopic conversion factors or time dependent conversion factors. These are described in detail in the Requirements Specification and Vermont Yankee URI Site Annex. When a calculation is performed, a release rate is calculated and processed using the RASCAL dose processors.

URI uses predetermined onsite meteorological tower data and optional meteorological data from offsite sources. Required input fields are wind speed, wind direction, stability class, and precipitation. When a calculation is performed, all entered meteorological data is processed in RASCAL using the meteorological processor.

Implementation of URI/RASCAL establishes a relationship between effluent monitor readings and offsite exposures and contamination for entered metrological conditions which continues to comply with this planning standard.

5. **Each licensee shall have the capability of acquiring and evaluating meteorological information sufficient to meet the criteria of Appendix 2. There shall be provisions for access to meteorological information by at least the near-site Emergency Operations Facility, the Technical Support Center, the Control Room and an offsite NRC center. The licensee shall make available to the State suitable meteorological data processing interconnections which will permit independent analysis by the State, of facility generated data in those States with the resources to effectively use this information.**

URI does not require additional meteorological data beyond what is required for METPAC/ODPS. URI does have additional capabilities beyond that of METPAC/ODPS in that it can utilize multiple meteorological towers for dose assessment. Implementing URI will have no effect on available meteorological towers and their associated information at a Vermont Yankee emergency facility or at a state or federal facility. Provision for data processing interconnections associated with the site meteorological monitoring program remains unchanged.

Implementation of URI/RASCAL continues to comply with this planning standard.

6. **Each licensee shall establish the methodology for determining the release rate/projected doses if the instrumentation used for assessment is offscale or inoperable.**

Normally, assessments are performed using installed or portable effluent monitors. However, when they are not available or not part of the release pathway, URI provides alternative methods to calculate a release rate. Subsequent projected doses are based on the calculated release rate using the RASCAL meteorological and dose processors. A unique dose calculation model is not required for each alternate method to determine a calculated dose.

Release Point Sample
Result concentrations for the 33 isotopes of interest can be entered directly into the program to determine a release rate based on a given release point flow rate. Any isotope concentrations not entered are assumed to be 0.

Field Team
Results can be utilized to back calculate a source term and subsequent doses by rationing a predetermined release to actual field team results. Field team environmental data with input fields for exposure rate and iodine concentration are used to calculate a release rate ratio. URI results are then adjusted by this ratio before being displayed to the end user.

Implementation of URI/RASCAL continues to comply with this planning standard.

7. **Each organization shall describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone which are an intrinsic part of the concept of operations for the facility.**

Implementation of URI/RASCAL does not affect field monitoring activities and continues to comply with this planning standard. However, field monitoring team results can be used to calculate projected doses as described in 6 above.

8. **Each organization, where appropriate, shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This shall include activation, notification means, field team composition, transportation, communication, monitoring equipment and estimated deployment times.**

Implementation of URI/RASCAL will not affect activation, notification, field team composition, transportation, communication, or monitoring equipment at Vermont Yankee and continues to comply with this planning standard.

9. **Each organization shall have a capability to detect and measure radioiodine concentrations in air in the plume exposure EPZ as low as 10^{-7} uci/cc (microcuries per cubic centimeter) under field conditions. Interference from the presence of noble gas and background radiation shall not decrease the stated minimum detectable activity.**

URI does not affect the ability of the field teams to collect or count air samples in the field. Minimum detectable activities are determined based on sample collection efficiency, sample volume, and counting equipment efficiency. URI does provide a method for calculating particulate and iodine air sample results including a Lower Limit of Detection (LLD) value to help determine the validity of the sample results when used for dose assessment.

Implementation of URI/RASCAL continues to comply with this planning standard.

10. **Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water and air activity levels) to dose rates for key isotopes (i.e., those given in Table 3, page 18) and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures.**

URI provides methodologies to convert airborne activity levels to dose based on calculated gaseous release rates for a given set of isotopes. These isotopes are defined in NUREG 1228 Table 2.2. These 33 isotopes are based on the WASH-1400 values that contribute to early health effects. All of the isotopes listed in Table 3 are included in URI. URI contains two options for estimating integrated dose. The user may input the release duration to calculate the integrated dose values, or use results of the current evacuation time estimate for release duration. In either case, the integrated dose is compared to the EPA PAG values. Areas where the PAGs are exceeded are highlighted on a graphical display. This method can be used with projected or actual dose rates.

Implementation of URI/RASCAL continues to comply with this planning standard.

50.47(b)(10) A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

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7. **Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the population-at-risk, in accordance with Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-520/1-75-001). As specified in Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.**

In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI) when appropriate. Evacuation time estimates have been developed and are updated on a periodic basis. Guidelines for the choice of protective actions during an emergency appropriate to the locale and consistent with Federal guidance are in place. Implementation of URI does not affect the mechanism for recommending protective actions to state or local authorities because it does not alter the Protective Action Recommendation process currently used at Vermont Yankee.

Implementation of URI/RASCAL continues to comply with this planning standard.

References

RASCAL 4, "Description of Models and Methods", June 2, 2010

Regulatory Guide 1.145, "ATMOSPERIC DISPERSION MODELS FOR POTENTIAL ACCIDENT CONSEQUENCE ASSESSMENTS AT NUCLEAR POWER PLANTS",

PAVAN (Bander, T.J. 1982), NUREG/CR-2858 "An Atmospheric Dispersion Program for Evaluating Design Basis Accidental Releases for Radioactive Materials from Nuclear Power Stations"

XOQDOQ (Sagendorf, Gol, and Sanddursky 1982,) NUREG/CR 4380, "Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations"

MESORAD (Scherpelz et. Al. 1986; Ramsdell et. al 1988), "The MESORAD Dose Assessment Model", Volume 1, NUREG/CR-4000.

10CFR Part 100, "Reactor Site Criteria"

RATCHET (Regional Atmospheric Transport Code for Hanford Emission Tracking) "Meteorological and Atomic Energy" 1968 ("D. Slade" TID 24190 US Atomic Energy Agency)

NUREG/CR-3332 "RADIOLOGICAL ASSESSMENT, A TEXTBOOK ON ENVIRONMENTAKL DOSE ANALYSIS"

EPA-400, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents".

DOE 1988, "External Dose-Rate Conversion Factors for Calculation of Dose to the Public"

Federal Guidance Report number 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion and Ingestion".

Federal Guidance Report Number 12, "External Exposure to Radionuclides in Air, Water, and Soil".

NUREG/CR-6853, "COMPARISON OF AVERAGE TRANSORT AND DISPERSION AMONG A GAUSSIAN, A TWO-DIMENSIONAL AND A THREE-DIMENSIONAL MODEL", October 2004.

NEI – 99-01, "Methodology for Development of Emergency Action Levels"

10CFR50.54(q) SCREENING

Procedure/Document Number: Emergency Plan	Revision: 55
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: Vermont Yankee Emergency Plan	

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

This screening addresses the retirement of the Emergency Response Data System (ERDS) in the Emergency Plan (Section 7.10), EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," EPAD-0093, "Emergency Planning Data Management," and AP-10049, "Equipment Important to Emergency Response" and the removal of Vermont Yankee from EN-EP-311," Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN)."

Part II. Activity Previously Reviewed?
Is this activity fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

Justification:

☐ Bounding document attached (optional)

☐ YES	☒ NO
50.54(q)(3) Evaluation is NOT required. Enter justification below and complete Part VI.	Continue to next part

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity.(Refer to EN-LI-100)

NOTE: For example, when a design change is the proposed activity, consequential actions may include changes to other documents which have a different change control process and are **NOT** to be included in this 50.54(q)(3) Screening.

APPLICABILITY CONCLUSION

☒ If there are no controlling change processes, continue the 50.54(q)(3) Screening.
☐ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.
☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

CONTROLLING CHANGE PROCESSES

10 CFR 50.54(q)

Part IV. Editorial Change

Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?

Justification:

☐ YES	☒ NO
50.54(q)(3) Evaluation is NOT required. Enter justification and complete Part VI.	Continue to next part

Procedure/Document Number: Emergency Plan	Revision: 55
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: Vermont Yankee Emergency Plan	

Part V. Emergency Planning Element/Function Screen (Associated 10 CFR 50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?	
1. Responsibility for emergency response is assigned. [1]	☐
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	☐
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	☐
4. The process for timely augmentation of onshift staff is established and maintained. [2]	☐
5. Arrangements for requesting and using off site assistance have been made. [3]	☐
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	☐
7. A standard scheme of emergency classification and action levels is in use. [4]	☐
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications. [5]	☐
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	☐
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	☐
11. Systems are established for prompt communication among principal emergency response organizations. [6]	☒
12. Systems are established for prompt communication to emergency response personnel. [6]	☐
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	☐
14. Coordinated dissemination of public information during emergencies is established. [7]	☐
15. Adequate facilities are maintained to support emergency response. [8]	☐
16. Adequate equipment is maintained to support emergency response. [8]	☐
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	☐
18. A range of public PARs is available for implementation during emergencies. [10]	☐
19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	☐
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.[10]	☐

Procedure/Document Number: Emergency Plan	Revision: 55
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: Vermont Yankee Emergency Plan	

21. The resources for controlling radiological exposures for emergency workers are established. [11]	☐
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	☐
23. Plans for recovery and reentry are developed. [13]	☐
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	☐
25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	☐
26. Identified weaknesses are corrected. [14]	☐
27. Training is provided to emergency responders. [15]	☐
28. Responsibility for emergency plan development and review is established. [16]	☐
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	☐

APPLICABILITY CONCLUSION

❑ If no Part V criteria are checked, a 50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.

✓ If any Part V criteria are checked, complete Part VI and perform a 50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

Emergency Planning Standard 10 CFR 50.47(b)(6) and planning standard element 11 in Part V of this form are affected by the retirement of ERDS. A 10 CFR 50.54(q) Evaluation will be performed to determine whether the effectiveness of the Emergency Plan is reduced and prior NRC approval is required.

Part VI. Signatures:

Preparer Name (Print) David L. Daigle	Preparer Signature	Date: 11/25/2014
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Nuclear EP Project Manager	Reviewer Signature	Date: 12-9-14
Approver Name (Print) MP McKenney EP manager or designee	Approver Signature	Date: 12/21/14

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

Part I. Description of Proposed Change:

This evaluation addresses the retirement of the Emergency Response Data System (ERDS) and removal of ERDS from the Emergency Plan (Section 7.10), EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," EPAD-0093, "Emergency Planning Data Management," and AP-10049, "Equipment Important to Emergency Response" and the removal of Vermont Yankee from EN-EP-311," Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN)."

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

The Emergency Plan (Rev. 53 and 54), UFSAR (Rev. 26), Technical Specifications (Rev. 271), and Technical Requirements Manual (TRM) (Rev. 53) were searched for the following keywords: Emergency Response Data System and ERDS. Additionally, EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," EPAD-0093, "Emergency Planning Data Management," and AP-10049, "Equipment Important to Emergency Response" were searched for the following keywords: Emergency Response Data System and ERDS. EN-EP-311," Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN)" was searched for Vermont Yankee and VY.

ERDS is not identified in Technical Specifications or the Technical Requirements Manual.

Per EN-LI-110, the licensing management system used for tracking NRC commitments (LRS) was searched for references to ERDS and no results were found.

ERDS was identified in the following:

Emergency Plan

According to Section 7.10 of the VY Emergency Plan, "ERDS is a direct real-time electronic transmission of the following types of data to the NRC to assist them in monitoring the status of an emergency: 1) core and coolant system data, 2) containment building data, 3) radioactivity release data, and 4) site meteorological data. Vermont Yankee maintains a continuous ERDS connection with the NRC Operations Center."

UFSAR

Section 7.15.1 of the UFSAR (Rev. 26) states that the Process Computer System (PCS) exports data to an Emergency Response Data System (ERDS) function and that, once activated, ERDS sends selected current plant data points to the NRC Operations Center on a periodic basis. Section 7.15.2, Item #4 states that the PCS data export feature shall support the following ERDS functions (resident on another system): Capable of being manually activated within one hour; Once activated, will establish data communications with the NRC ERDS computer system,; Transmit critical plant data in the proper format and protocol at time intervals of not less than 15 seconds or more than 60 seconds, until the link is manually disconnected, and; If the data connection is lost, the ERDS interface module is responsible for re-establishing communication with the ERDS computer.

EPOP-TSC-3542

Step 1.2 of Attachment 2 of EPOP-TSC-3542 states that the TSC Manager is responsible for ensuring the IT Specialist has verified the ERDS connection. Step 1.2 of Attachment 12 instructs the IT Specialist to verify the ERDS connection per EN-EP-311. Step 1.2 of Attachments 2 and 12 of EPOP-TSC-3542 both contain the following list of Notes:

- Vermont Yankee maintains a continuous connection to the NRC using the Emergency Response Data System (ERDS)
- Per 10CFR50.72 (a)(4) ERDS must be activated as soon as possible, but not later than one hour, after the initial declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
- Initial verification of the ERDS connection with the NRC will be performed by the IT Specialist. If the IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel.

Step 3.1 of Attachment 12 of EPOP-TSC-3542 instructs the IT Specialist to not disconnect ERDS because Vermont Yankee maintains a continuous connection to the NRC.

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

EPOP-EOF-3546

Step 1.2 of Attachment 6 of EPOP-EOF-3546 instructs the Offsite Communicator to confirm that the IT Specialist has verified the ERDS connection with the NRC and to follow the instructions in EN-EP-311 to perform the verification if the IT Specialist has not already performed the verification. Step 3.1 of Attachment 6 of EPOP-EOF-3546 instructs the Offsite Communicator to not disconnect ERDS because Vermont Yankee maintains a continuous connection to the NRC.

Step 1.2 of Attachment 6 of EPOP-EOF-3546 contains the following list of Notes:

- Vermont Yankee maintains a continuous connection to the NRC using the Emergency Response Data System (ERDS)
- Per 10CFR50.72 (a)(4) ERDS must be activated as soon as possible, but not later than one hour, after the initial declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
- Initial verification of the ERDS connection with the NRC will be performed by the IT Specialist. If the IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel.

Steps 1.2 and 2.2 of Attachment 14 of EPOP-EOF-3546 instructs the Offsite Liaisons to assist State personnel by interpreting information/data, if necessary, for use with NRC ERDS, METPAC, Rascal and any other computer systems used for radiological assessment. The New Hampshire and Massachusetts Offsite Liaisons mobilize to the State Emergency Operations Centers (EOCs). The Vermont Offsite Liaison is stationed at the EOF.

EN-EP-311

EN-EP-311 provides for a secure network communications connection supporting the transmission of station parameters to the NRC in the event of a declared emergency. The procedure provides the methodology for establishing the Virtual Private Network (VPN) communications link to the NRC for the transmission of ERDS data. The procedure also provides instructions for verification of connections for those Entergy plants which maintain 24/7 connectivity.

EPAD-0093

Attachment 4 of EPAD-0093 contains instructions for ensuring that the NRC is notified prior to a drill or exercise in which ERDS will be used and Attachment 10 contains actions taken following a drill or exercise with respect to restoration of ERDS.

AP-10049

AP-10049 identifies ERDS as equipment important to emergency response. ERDS is described as "a direct real time electronic transmission of the plant parameters to the NRC to assist them in monitoring the status of an emergency." ERDS is identified as Category B equipment with no required compensatory measures.

Part III. Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC:

Applicable Regulations:

Previous Commitments to the NRC - Per EN-LI-110, the licensing management system used for tracking NRC commitments (LRS) was searched as described in Part II and no results were found.

10 CFR 50.47(b)(6) - Emergency Communications: *Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.*

Site Compliance: Section 7.0 of the Emergency Plan and EPOP-COMM-3504 describe the available communications equipment, the location of this equipment, and the procedures for communicating with on-site and off-site support groups including Federal and State authorities.

VY does not provide ERDS data to State authorities, but instead maintains a continuous connection with the NRC. Because VY provides ERDS data to the NRC and not the State authorities, the VY Emergency Plan does not rely on the ability of the States to access ERDS for the provision of data. VY maintains the ability to provide more data (e.g., SFP parameters) to the ERO and State Representatives in the EOF than is available via ERDS.

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

10 CFR Part 50, Appendix E, Section VI – Emergency Response Data System:

1. The Emergency Response Data System (ERDS) is a direct near real-time electronic data link between the licensee's onsite computer system and the NRC Operations Center that provides for the automated transmission of a limited data set of selected parameters. The ERDS supplements the existing voice transmission over the Emergency Notification System (ENS) by providing the NRC Operations Center with timely and accurate updates of a limited set of parameters from the licensee's installed onsite computer system in the event of an emergency. When selected plant data are not available on the licensee's onsite computer system, retrofitting of data points is not required. The licensee shall test the ERDS periodically to verify system availability and operability. The frequency of ERDS testing will be quarterly unless otherwise set by NRC based on demonstrated system performance.

2. Except for Big Rock Point and all nuclear power facilities that are shut down permanently or indefinitely, onsite hardware shall be provided at each unit by the licensee to interface with the NRC receiving system. Software, which will be made available by the NRC, will assemble the data to be transmitted and transmit data from each unit via an output port on the appropriate data system. The hardware and software must have the following characteristics:

a. Data points, if resident in the in-plant computer systems, must be transmitted for four selected types of plant conditions: Reactor core and coolant system conditions; reactor containment conditions; radioactivity release rates; and plant meteorological tower data. A separate data feed is required for each reactor unit. While it is recognized that ERDS is not a safety system, it is conceivable that a licensee's ERDS interface could communicate with a safety system. In this case, appropriate isolation devices would be required at these interfaces.[7] The data points, identified in the following parameters will be transmitted:

(i) For pressurized water reactors (PWRs), the selected plant parameters are: (1) Primary coolant system: pressure, temperatures (hot leg, cold leg, and core exit thermocouples), subcooling margin, pressurizer level, reactor coolant charging/makeup flow, reactor vessel level, reactor coolant flow, and reactor power; (2) Secondary coolant system: Steam generator levels and pressures, main feedwater flows, and auxiliary and emergency feedwater flows; (3) Safety injection: High- and low-pressure safety injection flows, safety injection flows (Westinghouse), and borated water storage tank level; (4) Containment: pressure, temperatures, hydrogen concentration, and sump levels; (5) Radiation monitoring system: Reactor coolant radioactivity, containment radiation level, condenser air removal radiation level, effluent radiation monitors, and process radiation monitor levels; and (6) Meteorological data: wind speed, wind direction, and atmospheric stability.

(ii) For boiling water reactors (BWRs), the selected parameters are: (1) Reactor coolant system: Reactor pressure, reactor vessel level, feedwater flow, and reactor power; (2) Safety injection: Reactor core isolation cooling flow, high-pressure coolant injection/high-pressure core spray flow, core spray flow, low-pressure coolant injection flow, and condensate storage tank level; (3) Containment: drywell pressure, drywell temperatures, drywell sump levels, hydrogen and oxygen concentrations, suppression pool temperature, and suppression pool level; (4) Radiation monitoring system: Reactor coolant radioactivity level, primary containment radiation level, condenser off-gas radiation level, effluent radiation monitor, and process radiation levels; and (5) Meteorological data: Wind speed, wind direction, and atmospheric stability.

b. The system must be capable of transmitting all available ERDS parameters at time intervals of not less than 15 seconds or more than 60 seconds. Exceptions to this requirement will be considered on a case by case basis.

c. All link control and data transmission must be established in a format compatible with the NRC receiving system[8] as configured at the time of licensee implementation.

3. Maintaining Emergency Response Data System:

a. Any hardware and software changes that affect the transmitted data points identified in the ERDS Data Point Library[9] (site specific data base residing on the ERDS computer) must be submitted to the NRC within 30 days after the changes are completed.

b. Hardware and software changes, with the exception of data point modifications, that could affect the transmission format and computer communication protocol to the ERDS must be provided to the NRC as soon as practicable and at least 30 days prior to the modification.

c. In the event of a failure of the NRC supplied onsite modem, a replacement unit will be furnished by the NRC for licensee installation.

4. Implementing the Emergency Response Data System Program:

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

a. Each licensee shall develop and submit an ERDS implementation program plan to the NRC by October 28, 1991. To ensure compatibility with the guidance provided for the ERDS, the ERDS implementation program plan,[10] must include, but not be limited to, information on the licensee's computer system configuration (i.e., hardware and software), interface, and procedures.

b. Licensees must comply with appendix E to part 50, section V.

c. Licensees that have submitted the required information under the voluntary ERDS implementation program will not be required to resubmit this information. The licensee shall meet the implementation schedule of appendix E to Part 50, Section VI.4d.

d. Each licensee shall complete implementation of the ERDS by February 13, 1993, or before initial escalation to full power, whichever comes later. Licensees with currently operational ERDS interfaces approved under the voluntary ERDS implementation program will not be required to submit another implementation plan and will be considered to have met the requirements for ERDS under appendix E to part 50, section VI.1 and 2 of this part.

Site Compliance: As described in the Emergency Plan and EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," VY currently maintains a continuous connection to the NRC using ERDS, thus satisfying the requirements of Section VI of 10 CRF Part 50, Appendix E.

The requirements for ERDS in 10 CFR 50 Appendix E section VI.2 do not apply to nuclear power reactor licensees who have submitted a certificate of permanent cessation of operation of a nuclear power facility. Per NRC memoranda dated 6/2/14 (ML14099A520), the objective of ERDS, since its inception, has been to facilitate NRC monitoring of licensee response to the event and NRC assessment of the situation at the plant.

Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel and the requirements for ERDS in 10 CFR 50 Appendix E section VI.2 will no longer apply. Because Section VI of Appendix E to 10 CFR Part 50 is not applicable to permanently shutdown facilities, the emergency plan, as modified, will continue to meet the applicable requirements.

10 CFR 50.72(a)(4) – ERDS Activation: *The licensee shall activate the Emergency Response Data System (ERDS)[4] as soon as possible but not later than one hour after declaring an Emergency Class of alert, site area emergency, or general emergency. The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the exercise data.*

Paragraph 50.72(a)(4), which requires the licensee to activate ERDS for certain events, contains a footnote stating, "Requirements for ERDS are addressed in Appendix E, Section VI." Because VY maintains a continuous connection to ERDS, an initial verification of the ERDS connection with the NRC following declaration of an emergency is currently performed by the TSC IT Specialist. If the TSC IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel. Because ERDS requirements are not applicable to facilities which have permanently ceased operations, there can be no required ERDS for such a facility to activate and the emergency plan, as modified, will continue to meet the applicable requirements.

10 CFR 50.72(c)(3) – Continuous Communication: *Maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC.*

10 CFR 50.72(c)(3) requires a licensee to maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC. Section 7.6 of the Emergency Plan describes the Federal Telecommunications System (FTS) that provides the ENS which exists between the NRC Operations Center (NRCOC) and the Control Room, with extensions in the Communications Room and the NRC Room of the TSC. The ENS also utilizes a separate FTS line between the NRCOC and the EOF. These lines are available for continuous communications with the NRCOC.

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change:

10 CFR 50.47(b)(6) - Emergency Communications

- Systems are established for prompt communication among principal emergency response organizations.
- Systems are established for prompt communications to emergency response personnel.

Sections IV.E.9 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.F of NUREG-0654 and the licensee's emergency plan.

Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:

Regulatory Guide 1.219, "Guidance On Making Changes To Emergency Plans For Nuclear Power Reactors" provides guidance for determining reductions in effectiveness. Section 1.8 states:

The 10 CFR 50.54(q) change process establishes a two-factor test to determine when a change to an emergency plan requires prior NRC approval. First, the test assesses whether the emergency plan, as modified, would continue to comply with the planning standards in 10 CFR 50.47(b) or the requirements in Appendix E to 10 CFR Part 50. Second, the test assesses whether the proposed change would reduce the effectiveness of the emergency plan. These two tests are separate and distinct. If the licensee does not meet either test, it must obtain prior NRC approval. Meeting the first test does not imply that the licensee has met the second test, nor does meeting the second test imply that the licensee has met the first test.

REGULATORY GUIDE 1.219 TEST PART 1: (Does the change comply with regulations?)

10 CFR 50.47(b)(6) requires licensees to maintain prompt communications among principal response organizations to emergency personnel and to the public.The VY Emergency Plan does not rely upon ERDS for transmission of information or data to the State or local authorities or to the public. Section 7.0 of the emergency plan identifies the means of communication with State and local authorities. This is accomplished via InForm, Nuclear Alert System, Mobile UHF Radio System, commercial telephone system, and facsimile. ERDS is not identified as a communication channel to State response organizations; it is one of the communication channels between VY and the NRC. Therefore, the removal of ERDS from the Emergency Plan would not affect the ability of VY to maintain prompt communication among principal response organizations, to emergency personnel, and to the public. Accordingly, compliance with 10 CFR 50.47(b)(6) would not be affected by the retirement of ERDS.

Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel.

The requirements for ERDS are located in 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section VI, "Emergency Response Data System." Section VI(2) provides an exclusion for reactors that are permanently or indefinitely shut down. In the Statements of Consideration (SOC) for the ERDS final rule (50 Federal Register 50178, August 13, 1991) the NRC stated the objective of the rule was to provide a reliable and effective communication system that would allow the NRC to monitor critical parameters at operating reactors during an emergency. The NRC identified that it has a responsibility in the event of a reactor accident to monitor the actions of the licensee and to promptly assess the situation at the plant. The NRC described ERDS as a supplement to the ENS. Recent guidance issued by the NRC Director of the Division of Preparedness and Response (ML14099A520) confirms that the requirement to maintain ERDS in 10 CFR 50 Appendix E, Section VI does not apply to nuclear power reactor licensees who have submitted a certificate of permanent cessation of operation of a nuclear power facility. Following the removal of ERDS from the Emergency Plan, the Emergency Plan would continue to comply with the provisions of Appendix E that would remain applicable to VY.

Paragraph 50.72(a)(4), which requires the licensee to activate ERDS for certain events, contains a footnote stating, "Requirements for ERDS are addressed in Appendix E, Section VI. Because ERDS requirements are not applicable to facilities which have permanently ceased operations, the 50.72(a)(4) ERDS activiation requirement is likewise inapplicable.

Procedure/Document Number: NA	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

Accordingly, the revised Emergency Plan that would reflect the retirement of ERDS would continue to comply with all applicable regulatory requirements.

REGULATORY GUIDE 1.219 TEST PART 2: (Is the change a reduction in effectiveness?)

The current ERDS Data Point Library Reference File provides the ERDS data points. In a permanently defueled condition, the only valid data points remaining in the ERDS Data Point Library Reference File are radiological effluent data, radiation monitoring data, reactor building pressure data, torus water level data and meteorological data. While some of this information could be used for emergency dose assessment and determination of public protective action recommendations, VY does not rely on ERDS for the provision of this data to the VY Emergency Response Facilities, the VY Emergency Response Organization (ERO), or to the offsite agencies. VY provides this plant data to the offsite authorities via numerous other means.

The PCS automatically exports data to ERDS. Separately, the Process Computer System also provides the data to the Emergency Operations Facility (EOF), Technical Support Center (TSC) and Operations Support Center (OSC) via the Emergency Response Facilities Information System (ERFIS) and Plant Data System (PDS) screens in each facility. Therefore, the retirement of ERDS would not reduce the effectiveness of VY's ability to provide plant data to the Emergency Response Facilities.

The ERO and on-shift personnel also do not rely on ERDS to obtain plant data. The ERO's source of data is the plant computer system or directly from Control Room instrumentation, both of which remain available to the VY ERO in the TSC and the EOF. Similarly, the plant computer system and Control Room instrumentation will remain available to the on-shift staff. Therefore, the retirement of ERDS would not reduce the effectiveness of VY's ability to communicate plant information to the ERO or on-shift staff.

VY does not provide plant data to the States of Massachusetts, Vermont, or New Hampshire via ERDS. Instead, VY provides plant data to State personnel stationed at the EOF or at their respective EOCs. Parameters related to the SFP, including SFP water level, SFP water temperature, and SFP pump status are not available via ERDS. However, the data is currently available in the EOF, TSC and OSC via the PDS. This data would be available to ERO and State personnel in the EOF, TSC and OSC via the display screens. The VY Vermont Offsite Liaison is stationed at the EOF. The VY New Hampshire and Massachusetts Offsite Liaisons mobilize to the State Emergency Operations Centers (EOCs). EPOP-EOF-3546 instructs the Offsite Liaisons to assist State personnel by interpreting information/data, if necessary, for use with NRC ERDS, METPAC, Rascal and any other computer systems used for radiological assessment. The VY Offsite Liaison positions are also maintained in the Post-Shutdown ERO and will continue to assist State personnel by interpreting information/data from the plant computer system. Consequently, retirement of ERDS would not reduce the effectiveness of VY's ability to communicate plant data to State response organizations.

NRC guidance dated 6/2/14 (ML14099A520) confirms that removing ERDS would not reduce the effectiveness of a licensee's emergency plan:

> "...the objective of ERDS, since its inception, has been to facilitate NRC monitoring of licensee response to the event and NRC assessment of the situation at the plant. Providing ERDS data to the NRC is not an emergency planning function as defined in 10 CFR 50.54(q)(1)(iii). Because a reduction in effectiveness requires a reduction of the licensee's capability to perform an emergency planning function and providing data to the NRC through ERDS is not an emergency planning function, removing ERDS would not reduce the effectiveness of the licensee's capability to perform an emergency planning function. Accordingly, removing ERDS would not reduce the effectiveness of the licensee's plan."

For all of the reasons discussed above, removing ERDS would not reduce the effectiveness of the VY Emergency Plan.

A revised VY Emergency Plan that reflects the retirement of ERDS would continue to comply with the requirements of 10 CFR 50.47(b)(6), 50.72(c)(3), and the remaining applicable requirements of Appendix E to 10 CFR Part 50. Removal of ERDS does not represent a reduction in effectiveness to the Emergency Plan and can be implemented without prior NRC approval.

Procedure/Document Number: NA	Revision: NA

Equipment/Facility/Other: Vermont Yankee ERDS		
Title: NA		
Part VI. Evaluation Conclusion **Answer the following questions about the proposed change.**		
1. Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?		☒YES ☐ NO
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?		☒YES ☐ NO
3. Does the proposed change constitute an emergency action level scheme change?		☐YES ☒ NO
If questions 1 or 2 are answered NO, or question 3 answered YES, reject the proposed change, modify the proposed change and perform a new evaluation or obtain prior NRC approval under provisions of 10 CFR 50.90. If questions 1 and 2 are answered YES, and question 3 answered NO, implement applicable change process(es). Refer to step 5.6[8].		
Part VII. Signatures		
Preparer Name (Print) David L. Daigle	Preparer Signature	Date: 12/04/2014
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Nuclear EP Project Manager	Reviewer Signature	Date: 12-9-14
Approver Name (Print) MP McKENNEY EP Manager or designee	Approver Signature	Date: 12/21/14

Procedure/Document Number: NA Page 1 of 7	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

Part I. Description of Proposed Change:

This evaluation has been revised to address comments from the Onsite Safety Review Committee (OSRC) review on 1/13/15.

This evaluation addresses the retirement of the Emergency Response Data System (ERDS) and removal of ERDS from the Emergency Plan (Section 7.10), EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," EPAD-0093, "Emergency Planning Data Management," and AP-10049, "Equipment Important to Emergency Response" and the removal of Vermont Yankee from EN-EP-311," Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN)."

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

The Emergency Plan (Rev. 53 and 54), UFSAR (Rev. 26), Technical Specifications (Rev. 271), and Technical Requirements Manual (TRM) (Rev. 53) were searched for the following keywords: Emergency Response Data System and ERDS. Additionally, EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," EPAD-0093, "Emergency Planning Data Management," and AP-10049, "Equipment Important to Emergency Response" were searched for the following keywords: Emergency Response Data System and ERDS. EN-EP-311," Emergency Response Data System (ERDS) Activation via the Virtual Private Network (VPN)" was searched for Vermont Yankee and VY.

ERDS is not identified in Technical Specifications or the Technical Requirements Manual.

Per EN-LI-110, the licensing management system used for tracking NRC commitments (LRS) was searched for references to ERDS and no results were found.

ERDS was identified in the following:

Emergency Plan

According to Section 7.10 of the VY Emergency Plan, "ERDS is a direct real-time electronic transmission of the following types of data to the NRC to assist them in monitoring the status of an emergency: 1) core and coolant system data, 2) containment building data, 3) radioactivity release data, and 4) site meteorological data. Vermont Yankee maintains a continuous ERDS connection with the NRC Operations Center."

UFSAR

Section 7.15.1 of the UFSAR (Rev. 26) states that the Process Computer System (PCS) exports data to an Emergency Response Data System (ERDS) function and that, once activated, ERDS sends selected current plant data points to the NRC Operations Center on a periodic basis. Section 7.15.2, Item #4 states that the PCS data export feature shall support the following ERDS functions (resident on another system): Capable of being manually activated within one hour; Once activated, will establish data communications with the NRC ERDS computer system,; Transmit critical plant data in the proper format and protocol at time intervals of not less than 15 seconds or more than 60 seconds, until the link is manually disconnected, and; If the data connection is lost, the ERDS interface module is responsible for re-establishing communication with the ERDS computer.

EPOP-TSC-3542

Step 1.2 of Attachment 2 of EPOP-TSC-3542 states that the TSC Manager is responsible for ensuring the IT Specialist has verified the ERDS connection. Step 1.2 of Attachment 12 instructs the IT Specialist to verify the ERDS connection per EN-EP-311. Step 1.2 of Attachments 2 and 12 of EPOP-TSC-3542 both contain the following list of Notes:

- Vermont Yankee maintains a continuous connection to the NRC using the Emergency Response Data System (ERDS)
- Per 10CFR50.72 (a)(4) ERDS must be activated as soon as possible, but not later than one hour, after the initial declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
- Initial verification of the ERDS connection with the NRC will be performed by the IT Specialist. If the IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel.

Step 3.1 of Attachment 12 of EPOP-TSC-3542 instructs the IT Specialist to not disconnect ERDS because Vermont

Yankee maintains a continuous connection to the NRC.

EPOP-EOF-3546

Step 1.2 of Attachment 6 of EPOP-EOF-3546 instructs the Offsite Communicator to confirm that the IT Specialist has verified the ERDS connection with the NRC and to follow the instructions in EN-EP-311 to perform the verification if the IT Specialist has not already performed the verification. Step 3.1 of Attachment 6 of EPOP-EOF-3546 instructs the Offsite Communicator to not disconnect ERDS because Vermont Yankee maintains a continuous connection to the NRC.

Step 1.2 of Attachment 6 of EPOP-EOF-3546 contains the following list of Notes:

- Vermont Yankee maintains a continuous connection to the NRC using the Emergency Response Data System (ERDS)
- Per 10CFR50.72 (a)(4) ERDS must be activated as soon as possible, but not later than one hour, after the initial declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
- Initial verification of the ERDS connection with the NRC will be performed by the IT Specialist. If the IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel.

Steps 1.2 and 2.2 of Attachment 14 of EPOP-EOF-3546 instructs the Offsite Liaisons to assist State personnel by interpreting information/data, if necessary, for use with NRC ERDS, METPAC, Rascal and any other computer systems used for radiological assessment. The New Hampshire and Massachusetts Offsite Liaisons mobilize to the State Emergency Operations Centers (EOCs). The Vermont Offsite Liaison is stationed at the EOF.

EN-EP-311

EN-EP-311 provides for a secure network communications connection supporting the transmission of station parameters to the NRC in the event of a declared emergency. The procedure provides the methodology for establishing the Virtual Private Network (VPN) communications link to the NRC for the transmission of ERDS data. The procedure also provides instructions for verification of connections for those Entergy plants which maintain 24/7 connectivity.

EPAD-0093

Attachment 4 of EPAD-0093 contains instructions for ensuring that the NRC is notified prior to a drill or exercise in which ERDS will be used and Attachment 10 contains actions taken following a drill or exercise with respect to restoration of ERDS.

AP-10049

AP-10049 identifies ERDS as equipment important to emergency response. ERDS is described as "a direct real time electronic transmission of the plant parameters to the NRC to assist them in monitoring the status of an emergency." ERDS is identified as Category B equipment with no required compensatory measures.

Part III. Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC:

Applicable Regulations:

Previous Commitments to the NRC - Per EN-LI-110, the licensing management system used for tracking NRC commitments (LRS) was searched as described in Part II and no results were found.

10 CFR 50.47(b)(6) - Emergency Communications: *Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.*

Site Compliance: Section 7.0 of the Emergency Plan and EPOP-COMM-3504 describe the available communications equipment, the location of this equipment, and the procedures for communicating with on-site and off-site support groups including Federal and State authorities.

VY does not provide ERDS data to State authorities, but instead maintains a continuous connection with the NRC. Because VY provides ERDS data to the NRC and not the State authorities, the VY Emergency Plan does not rely on the ability of the States to access ERDS for the provision of data. VY maintains the ability to provide data to the ERO and State Representatives in the EOF. The data is available in the EOF via the Plant Display System (PDS). This data will continue to be available to State Representatives in the EOF via the display screens. If requested by the States, the information could also be provided to the State EOCs by VY administrative personnel in the EOF via email or fax.

Procedure/Document Number: NA Page 3 of 7	Revision: NA
Equipment/Facility/Other: Vermont Yankee ERDS	
Title: NA	

10 CFR Part 50, Appendix E, Section VI – Emergency Response Data System:

1. The Emergency Response Data System (ERDS) is a direct near real-time electronic data link between the licensee's onsite computer system and the NRC Operations Center that provides for the automated transmission of a limited data set of selected parameters. The ERDS supplements the existing voice transmission over the Emergency Notification System (ENS) by providing the NRC Operations Center with timely and accurate updates of a limited set of parameters from the licensee's installed onsite computer system in the event of an emergency. When selected plant data are not available on the licensee's onsite computer system, retrofitting of data points is not required. The licensee shall test the ERDS periodically to verify system availability and operability. The frequency of ERDS testing will be quarterly unless otherwise set by NRC based on demonstrated system performance.

2. Except for Big Rock Point and all nuclear power facilities that are shut down permanently or indefinitely, onsite hardware shall be provided at each unit by the licensee to interface with the NRC receiving system. Software, which will be made available by the NRC, will assemble the data to be transmitted and transmit data from each unit via an output port on the appropriate data system. The hardware and software must have the following characteristics:

a. Data points, if resident in the in-plant computer systems, must be transmitted for four selected types of plant conditions: Reactor core and coolant system conditions; reactor containment conditions; radioactivity release rates; and plant meteorological tower data. A separate data feed is required for each reactor unit. While it is recognized that ERDS is not a safety system, it is conceivable that a licensee's ERDS interface could communicate with a safety system. In this case, appropriate isolation devices would be required at these interfaces.[7] The data points, identified in the following parameters will be transmitted:

(i) For pressurized water reactors (PWRs), the selected plant parameters are: (1) Primary coolant system: pressure, temperatures (hot leg, cold leg, and core exit thermocouples), subcooling margin, pressurizer level, reactor coolant charging/makeup flow, reactor vessel level, reactor coolant flow, and reactor power; (2) Secondary coolant system: Steam generator levels and pressures, main feedwater flows, and auxiliary and emergency feedwater flows; (3) Safety injection: High- and low-pressure safety injection flows, safety injection flows (Westinghouse), and borated water storage tank level; (4) Containment: pressure, temperatures, hydrogen concentration, and sump levels; (5) Radiation monitoring system: Reactor coolant radioactivity, containment radiation level, condenser air removal radiation level, effluent radiation monitors, and process radiation monitor levels; and (6) Meteorological data: wind speed, wind direction, and atmospheric stability.

(ii) For boiling water reactors (BWRs), the selected parameters are: (1) Reactor coolant system: Reactor pressure, reactor vessel level, feedwater flow, and reactor power; (2) Safety injection: Reactor core isolation cooling flow, high-pressure coolant injection/high-pressure core spray flow, core spray flow, low-pressure coolant injection flow, and condensate storage tank level; (3) Containment: drywell pressure, drywell temperatures, drywell sump levels, hydrogen and oxygen concentrations, suppression pool temperature, and suppression pool level; (4) Radiation monitoring system: Reactor coolant radioactivity level, primary containment radiation level, condenser off-gas radiation level, effluent radiation monitor, and process radiation levels; and (5) Meteorological data: Wind speed, wind direction, and atmospheric stability.

b. The system must be capable of transmitting all available ERDS parameters at time intervals of not less than 15 seconds or more than 60 seconds. Exceptions to this requirement will be considered on a case by case basis.

c. All link control and data transmission must be established in a format compatible with the NRC receiving system[8] as configured at the time of licensee implementation.

3. Maintaining Emergency Response Data System:

a. Any hardware and software changes that affect the transmitted data points identified in the ERDS Data Point Library[9] (site specific data base residing on the ERDS computer) must be submitted to the NRC within 30 days after the changes are completed.

b. Hardware and software changes, with the exception of data point modifications, that could affect the transmission format and computer communication protocol to the ERDS must be provided to the NRC as soon as practicable and at least 30 days prior to the modification.

c. In the event of a failure of the NRC supplied onsite modem, a replacement unit will be furnished by the NRC for licensee installation.

4. Implementing the Emergency Response Data System Program:

a. Each licensee shall develop and submit an ERDS implementation program plan to the NRC by October 28, 1991. To

ensure compatibility with the guidance provided for the ERDS, the ERDS implementation program plan,[10] must include, but not be limited to, information on the licensee's computer system configuration (i.e., hardware and software), interface, and procedures.

b. Licensees must comply with appendix E to part 50, section V.

c. Licensees that have submitted the required information under the voluntary ERDS implementation program will not be required to resubmit this information. The licensee shall meet the implementation schedule of appendix E to Part 50, Section VI.4d.

d. Each licensee shall complete implementation of the ERDS by February 13, 1993, or before initial escalation to full power, whichever comes later. Licensees with currently operational ERDS interfaces approved under the voluntary ERDS implementation program will not be required to submit another implementation plan and will be considered to have met the requirements for ERDS under appendix E to part 50, section VI.1 and 2 of this part.

Site Compliance: As described in the Emergency Plan and EPOP-TSC-3542, "Operation of the Technical Support Center," EPOP-EOF-3546, "Emergency Operations Facility/Recovery Center (EOF/RC)," VY currently maintains a continuous connection to the NRC using ERDS, thus satisfying the requirements of Section VI of 10 CRF Part 50, Appendix E.

The requirements for ERDS in 10 CFR 50 Appendix E section VI.2 do not apply to nuclear power reactor licensees who have submitted a certificate of permanent cessation of operation of a nuclear power facility. Per NRC memoranda dated 6/2/14 (ML14099A520), the objective of ERDS, since its inception, has been to facilitate NRC monitoring of licensee response to the event and NRC assessment of the situation at the plant.

Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel and the requirements for ERDS in 10 CFR 50 Appendix E section VI.2 will no longer apply. Because Section VI of Appendix E to 10 CFR Part 50 is not applicable to permanently shutdown facilities, the emergency plan, as modified, will continue to meet the applicable requirements.

10 CFR 50.72(a)(4) – ERDS Activation: *The licensee shall activate the Emergency Response Data System (ERDS) as soon as possible but not later than one hour after declaring an Emergency Class of alert, site area emergency, or general emergency. The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the exercise data.*

Paragraph 50.72(a)(4), which requires the licensee to activate ERDS for certain events, contains a footnote stating, "Requirements for ERDS are addressed in Appendix E, Section VI." Because VY maintains a continuous connection to ERDS, an initial verification of the ERDS connection with the NRC following declaration of an emergency is currently performed by the TSC IT Specialist. If the TSC IT Specialist is unable to verify the connection within the required time, then one of the following (in this order) will perform the verification: EOF Off-site Communicator, EP Department Personnel. Because ERDS requirements are not applicable to facilities which have permanently ceased operations, there can be no required ERDS for such a facility to activate and the emergency plan, as modified, will continue to meet the applicable requirements.

10 CFR 50.72(c)(3) – Continuous Communication: *Maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC.*

10 CFR 50.72(c)(3) requires a licensee to maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC. Section 7.6 of the Emergency Plan describes the Federal Telecommunications System (FTS) that provides the ENS which exists between the NRC Operations Center (NRCOC) and the Control Room, with extensions in the Communications Room and the NRC Room of the TSC. The ENS also utilizes a separate FTS line between the NRCOC and the EOF. These lines are available for continuous communications with the NRCOC.

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change:

10 CFR 50.47(b)(6) - Emergency Communications

- Systems are established for prompt communication among principal emergency response organizations.
- Systems are established for prompt communications to emergency response personnel.

Sections IV.E.9 of Appendix E to 10 CFR 50 provide supporting requirements. Informing criteria appear in Section II.F of NUREG-0654 and the licensee's emergency plan.

Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:

Regulatory Guide 1.219, "Guidance On Making Changes To Emergency Plans For Nuclear Power Reactors" provides guidance for determining reductions in effectiveness. Section 1.8 states:

The 10 CFR 50.54(q) change process establishes a two-factor test to determine when a change to an emergency plan requires prior NRC approval. First, the test assesses whether the emergency plan, as modified, would continue to comply with the planning standards in 10 CFR 50.47(b) or the requirements in Appendix E to 10 CFR Part 50. Second, the test assesses whether the proposed change would reduce the effectiveness of the emergency plan. These two tests are separate and distinct. If the licensee does not meet either test, it must obtain prior NRC approval. Meeting the first test does not imply that the licensee has met the second test, nor does meeting the second test imply that the licensee has met the first test.

REGULATORY GUIDE 1.219 TEST PART 1: (Does the change comply with regulations?)

10 CFR 50.47(b)(6) requires licensees to maintain prompt communications among principal response organizations to emergency personnel and to the public.The VY Emergency Plan does not rely upon ERDS for transmission of information or data to the State or local authorities or to the public. Section 7.0 of the emergency plan identifies the means of communication with State and local authorities. This is accomplished via InForm, Nuclear Alert System, Mobile UHF Radio System, commercial telephone system, and facsimile. ERDS is not identified as a communication channel to State response organizations; it is one of the communication channels between VY and the NRC. Therefore, the removal of ERDS from the Emergency Plan would not affect the ability of VY to maintain prompt communication among principal response organizations, to emergency personnel, and to the public. Additionally, data is available in the EOF via the PDS. This data will continue to be available to State Representatives in the EOF via the display screens. If requested by the States, the information could also be provided to the State EOCs by VY administrative personnel in the EOF via email or fax. Accordingly, compliance with 10 CFR 50.47(b)(6) would not be affected by the retirement of ERDS.

Upon docketing of the certifications for permanent cessation of operations (10 CFR 50.82(a)(1)(i)) and permanent removal of fuel from the reactor vessel (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for VY will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel.

The requirements for ERDS are located in 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section VI, "Emergency Response Data System." Section VI(2) provides an exclusion for reactors that are permanently or indefinitely shut down. In the Statements of Consideration (SOC) for the ERDS final rule (50 Federal Register 50178, August 13, 1991) the NRC stated the objective of the rule was to provide a reliable and effective communication system that would allow the NRC to monitor critical parameters at operating reactors during an emergency. The NRC identified that it has a responsibility in the event of a reactor accident to monitor the actions of the licensee and to promptly assess the situation at the plant. The NRC described ERDS as a supplement to the ENS. Recent guidance issued by the NRC Director of the Division of Preparedness and Response (ML14099A520) confirms that the requirement to maintain ERDS in 10 CFR 50 Appendix E, Section VI does not apply to nuclear power reactor licensees who have submitted a certificate of permanent cessation of operation of a nuclear power facility. Following the removal of ERDS from the Emergency Plan, the Emergency Plan would continue to comply with the provisions of Appendix E that would remain applicable to VY.

Paragraph 50.72(a)(4), which requires the licensee to activate ERDS for certain events, contains a footnote stating, "Requirements for ERDS are addressed in Appendix E, Section VI. Because ERDS requirements are not applicable to facilities that have permanently ceased operations, the 50.72(a)(4) ERDS activation requirement is likewise inapplicable.

Accordingly, the revised Emergency Plan that would reflect the retirement of ERDS would continue to comply with all applicable regulatory requirements.

REGULATORY GUIDE 1.219 TEST PART 2: (Is the change a reduction in effectiveness?)

The current ERDS Data Point Library Reference File provides the ERDS data points. In a permanently defueled condition, the only valid data points remaining in the ERDS Data Point Library Reference File are radiological effluent data, radiation

monitoring data, reactor building pressure data, torus water level data and meteorological data. While some of this information could be used for emergency dose assessment and determination of public protective action recommendations, VY does not rely on ERDS for the provision of this data to the VY Emergency Response Facilities, the VY Emergency Response Organization (ERO), or to the offsite agencies. VY provides this plant data to the offsite authorities via numerous other means. The data is available in the EOF via the PDS. This data will continue to be available to State Representatives in the EOF via the display screens. If requested by the States, the information could also be provided to the State EOCs by VY administrative personnel in the EOF via email or fax.

The PCS automatically exports data to ERDS. Separately, the Process Computer System also provides the data to the Emergency Operations Facility (EOF), Technical Support Center (TSC) and Operations Support Center (OSC) via the Emergency Response Facilities Information System (ERFIS) and PDS screens in each facility. Therefore, the retirement of ERDS would not reduce the effectiveness of VY's ability to provide plant data to the Emergency Response Facilities.

The ERO and on-shift personnel also do not rely on ERDS to obtain plant data. The ERO's source of data is the plant computer system or directly from Control Room instrumentation, both of which remain available to the VY ERO in the TSC and the EOF. Similarly, the plant computer system and Control Room instrumentation will remain available to the on-shift staff. Therefore, the retirement of ERDS would not reduce the effectiveness of VY's ability to communicate plant information to the ERO or on-shift staff.

VY does not provide plant data to the States of Massachusetts, Vermont, or New Hampshire via ERDS. Instead, VY provides plant data to State personnel stationed at the EOF or at their respective EOCs. The data is available in the EOF, TSC and OSC via the PDS. This data would be available to ERO and State personnel in the EOF, TSC and OSC via the display screens. The VY Vermont Offsite Liaison is stationed at the EOF. The VY New Hampshire and Massachusetts Offsite Liaisons mobilize to the State Emergency Operations Centers (EOCs). EPOP-EOF-3546 instructs the Offsite Liaisons to assist State personnel by interpreting information/data, if necessary, for use with NRC ERDS, METPAC, Rascal and any other computer systems used for radiological assessment. The VY Offsite Liaison positions are also maintained in the Post-Shutdown ERO and will continue to assist State personnel by interpreting information/data from the plant computer system. Consequently, retirement of ERDS would not reduce the effectiveness of VY's ability to communicate plant data to State response organizations.

NRC guidance dated 6/2/14 (ML14099A520) confirms that removing ERDS would not reduce the effectiveness of a licensee's emergency plan:

> "...the objective of ERDS, since its inception, has been to facilitate NRC monitoring of licensee response to the event and NRC assessment of the situation at the plant. Providing ERDS data to the NRC is not an emergency planning function as defined in 10 CFR 50.54(q)(1)(iii). Because a reduction in effectiveness requires a reduction of the licensee's capability to perform an emergency planning function and providing data to the NRC through ERDS is not an emergency planning function, removing ERDS would not reduce the effectiveness of the licensee's capability to perform an emergency planning function. Accordingly, removing ERDS would not reduce the effectiveness of the licensee's plan."

For all of the reasons discussed above, removing ERDS would not reduce the effectiveness of the VY Emergency Plan.

A revised VY Emergency Plan that reflects the retirement of ERDS would continue to comply with the requirements of 10 CFR 50.47(b)(6), 50.72(c)(3), and the remaining applicable requirements of Appendix E to 10 CFR Part 50. Removal of ERDS does not represent a reduction in effectiveness to the Emergency Plan and can be implemented without prior NRC approval.

Part VI. Evaluation Conclusion

Answer the following questions about the proposed change.

1. Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	☒YES ☐ NO
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	☒YES ☐ NO
3. Does the proposed change constitute an emergency action level scheme change?	☐YES ☒ NO

If questions 1 or 2 are answered NO, or question 3 answered YES, reject the proposed change, modify the proposed change and perform a new evaluation or obtain prior NRC approval under provisions of 10 CFR 50.90. If questions 1 and

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Title: NA	

2 are answered YES, and question 3 answered NO, implement applicable change process(es). Refer to step 5.6[8].

Part VII. Signatures

Preparer Name (Print) David L. Daigle	Preparer Signature	Date: 01/22/2015
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print) Tom Sowdon Nuclear EP Project Manager	Reviewer Signature	Date: 1-26-2015
Approver Name (Print) MP McKenney EP Manager or designee	Approver Signature	Date: 1/26/15