**Entergy Nuclear Operations, Inc.**
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**Michael Perito**
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10 CFR 50.54(a)

CNRO2016-00003
BVY 16-002

February 04, 2016

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

SUBJECT: Entergy Vermont Yankee Quality Assurance Program Manual
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28
Docket No. 72-59

REFERENCES: 1. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Annual report for Quality Assurance Program Manual changes under 10 CFR 50.54(a)(3) and 10 CFR 72.140(d)," dated April 30, 2015 (ADAMS Accession No. ML15124A720)

Dear Sir or Madam:

Pursuant to 10 CFR 50.54(a)(4), Entergy Nuclear Operations, Inc. (Entergy) is proposing several changes to the Entergy Vermont Yankee (VY) Quality Assurance Program Manual (QAPM). The proposed changes listed below and attached to this letter represent reductions in commitment to the previously submitted QAPM in Reference 1:

- Adding exceptions to ANSI/ANS 3.1-1978 for Unit staff qualifications experience requirements – A new exception is provided regarding the training and qualifications requirements defined in ANSI/ANS 3.1-1978, including clarifying that there is no longer a requirement to maintain NRC Licensed Operators as part of the site organization. This change also includes an exception to allow nuclear power plant experience to include experience acquired at a defueled reactor site, which still has spent nuclear fuel stored in a spent fuel pool. Adding an exception to ANSI/ANS 3.1-1978 is a reduction in commitment to the previously approved QAPM.

- Limiting the application of the QAPM to safety-related and important to safety (ITS) structures, systems and components (SSCs) and associated activities – Limiting the application of the QAPM to safety-related and ITS SSCs and associated activities is consistent with the guidance provided within 10 CFR 50, Appendix B, while continuing to satisfy the requirements of 10 CFR 71, Subpart H and 10 CFR 72, Subpart G. This is a reduction in commitment to the previously approved QAPM since augmented quality was previously discussed within the QAPM and now will be described in approved procedures.

- Modifying the Independent Review Functions – Transitioning the on-site review function to an Independent Safety Review (ISR) process and modifying the off-site review function (Safety Review Committee) are similar to changes previously approved by the NRC for Yankee Atomic Electric Company (YAEC) on June 20, 2000. Copies of the safety evaluations associated with the NRC approval of those changes are enclosed with this letter. The specific expertise and quorum requirements have been modified to be more consistent with those of a shutdown reactor. The modification of the on and off-site review functions is a reduction in commitment to the previously submitted QAPM.

This letter and attachments also contain other changes to the VY QAPM that are not considered to be reductions in commitments. These include organizational changes, clarifications and editorial changes. These changes that are not considered to be reductions in commitments are provided for information and are planned to be implemented in May 2016.

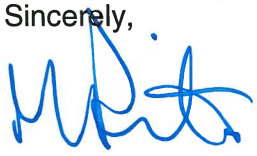
A detailed discussion regarding each of the QAPM changes that reduce commitments to the previously approved QAPM are provided within Attachment 1. Attachment 2 contains a description and evaluation of all the changes included in Revision 4. The QAPM, as revised, will continue to meet the requirements of 10 CFR 50, Appendix B. It will also continue to satisfy the requirements of 10 CFR 71, Subpart H and 10 CFR 72, Subpart G.

Entergy requests review and approval of these changes by April 15, 2016.

This letter contains no new regulatory commitments.

Should you have any questions, please contact Mr. Coley Chappell at 802-451-3374.

Sincerely,



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Attachments:
1. Evaluation of Proposed QAPM Changes
2. Summary of QAPM Changes

Enclosures:
1. Entergy VYNPS Quality Assurance Program Manual, Revision 4
2. Safety Evaluation for Revision 29 of the Yankee Decommissioning Quality Assurance Program
3. Safety Evaluation for Amendment 154 to Yankee Atomic Electric Company License No. DPR-3

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Mr. Christopher Recchia, Commissioner
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# Attachment 1

Evaluation of Proposed QAPM Changes

# EVALUATION OF PROPOSED QAPM CHANGES

## SUMMARY DESCRIPTION

The Entergy Vermont Yankee Quality Assurance Program Manual (QAPM) provides an overview of the quality program controls which are applied to Vermont Yankee's quality related items and activities. The QAPM ensures conformance to 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants" and satisfies the requirements of 10 CFR 71, Subpart H, "Quality Assurance" and 10 CFR 72, Subpart G, "Quality Assurance." This program applies to the Vermont Yankee Nuclear Power Station (VYNPS). In accordance with 10 CFR 50.54(a)(4), Entergy Nuclear Operations, Inc. (Entergy) requests NRC review the proposed changes that would include

1) Adding exceptions to ANSI/ANS 3.1-1978 for Unit staff qualifications experience requirements;
2) Limiting the application of the QAPM to safety-related and important to safety (ITS) structures, systems and components (SSCs) and associated activities; and
3) Modifying the Independent Review Functions.

These changes are considered reductions in commitment to the previously submitted QAPM and therefore require NRC approval prior to implementation. Several other changes being made are clarifications and administrative and alone do not reduce commitments, but are included in the request for completeness.

## DETAILED DESCRIPTION AND EVALUATION OF THE CHANGES

10 CFR 50.54(a)(4) requires changes to the quality assurance program description that reduce commitments to be submitted to the NRC and receive NRC approval prior to implementation. The proposed change must be accompanied by a letter that provides the basis for concluding that the revised program incorporating the change continues to satisfy the criteria of 10 CFR 50, Appendix B and the Safety Analysis Report (SAR) quality assurance program description commitments previously accepted by the NRC. The requested QAPM changes are evaluated in accordance with the requirements of 10 CFR 50.54(a)(4). The following is the discussion and evaluation of those changes and the conclusions that the QAPM continues to satisfy the requirements of 10 CFR 50, Appendix B.

### 1) Adding exceptions to ANSI/ANS 3.1-1978 for Unit staff qualifications experience requirements

A change to a current exception and one (1) new exception has been provided regarding the training and qualifications requirements provided in ANSI/ANS 3.1-1978. These changes include clarifying that there is no longer a need to maintain NRC Licensed Operators as part of the site organization. This change also includes an exception to allow nuclear power plant experience to also include experience acquired at a defueled reactor site, which has spent nuclear fuel stored in a spent fuel pool. Specifically, ANSI/ANS 3.1-1978 Sections 4.3.1 and 4.5.1 for nuclear power plant experience are amended to also include experience acquired at a defueled reactor site, which has spent nuclear fuel stored in a spent fuel pool. Individuals will obtain the necessary on-site experience to fill the position of Certified Fuel Handler or non-certified operators, based on their assigned functions and validation of equivalent training and experience rather than requiring at least six months of the nuclear power plant experience at the plant for which the individual

seeks a license or to be an operator as defined in Sections 4.3.1 and 4.5.1. The clarification regarding NRC Licensed Operators is not a reduction in commitment to the previously submitted QAPM. However, the change to the requirements for qualifications under ANSI/ANS 3.1-1978 is a reduction in commitment to the previously submitted QAPM. As provided within Section 6.2.C.1 of the VY Technical Specifications, each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the QAPM. This demonstrates that exceptions to ANSI/ANS 3.1-1978 are permitted and need to be defined within the QAPM. While 10 CFR 50, Appendix B does not specify particular qualification requirements, it does require that an organization be capable of fulfilling the duties and responsibilities specified in the Quality Assurance Program. The proposed changes continue to ensure that the individuals fulfilling operations positions at VY are sufficiently qualified to fulfill the duties and responsibilities of the position. Although the changes represent a reduction in commitment, they do not reduce the overall effectiveness of the QAPM, since the facility has permanently shut down and the complexities and risks have been reduced, as compared to an operating nuclear power plant. The changes reflect the reduced risk of a permanently shut down facility. These changes do not reduce the effectiveness of the QAPM and continue to ensure compliance with 10 CFR 50, Appendix B and the SAR quality assurance program description commitments previously accepted by the NRC.

**2) Limiting the application of the QAPM to safety-related and important to safety (ITS) structures, systems and components (SSCs) and associated activities**

This change limits the application of the QAPM to safety-related and important to safety (ITS) structures, systems and components (SSCs) and associated activities, which is a reduction in commitment to the previously submitted QAPM. The NRC issued an associated Safety Evaluation Report (SER) for a revision to the Yankee Decommissioning Quality Assurance Program (YDQAP) on June 20, 2000 to Yankee Atomic Electric Company (YAEC) documenting the approval of a similar change. At that time for YAEC, there were no longer any safety-related SSCs and the scope of the YDQAP was limited to ITS SSCs. For VY, the QAPM will continue to be fully applicable to the remaining safety-related SSCs that are associated with the safe storage of spent nuclear fuel in the Spent Fuel Pool. It will also continue to be applied to ITS SSCs associated with transportation packages under 10 CFR 71 and for dry fuel storage under 10 CFR 72, which are defined in Appendix A of the QAPM. Similar to the approved YDQAP, augmented quality will be controlled through approved procedures. Because the change is similar to that approved for YAEC, but the basis is not identical, it is required to be submitted for prior NRC approval. Specifically, the QAPM Policy Statement is modified to delete the following statement

> *"Approved administrative controls are also used to implement controls for certain quality-related equipment and activities that are not safety-related, but support safe storage of spent fuel, or where other regulatory or industry guidance establishes program requirements."*

Also, Section A.1.a is modified to clearly reflect that the QAPM will be fully applicable to safety-related and ITS SSCs and activities. Augmented quality activities will be controlled using approved procedures. The change that limits the application of the QAPM to safety-related and ITS SSCs is a reduction in commitment to the

previously submitted QAPM. Although the change represents a reduction in commitment, it does not reduce the overall effectiveness of the QAPM, since the augmented activities will continue to be controlled to meet SAR commitments. Additionally, the facility has permanently shut down and the complexities and risks have been reduced, as compared to an operating nuclear power plant. The change reflects the reduced risk of a permanently shut down facility and is similar to those previously approved by the NRC. These changes do not reduce the effectiveness of the QAPM and continues to ensure compliance with 10 CFR 50, Appendix B and the SAR quality assurance program description commitments previously accepted by the NRC.

**3) Modifying the Independent Review Functions**

There are two (2) proposed changes that result in reductions in commitment to the previously approved QAPM in a similar approach to changes previously approved by the NRC for the YAEC in 2000.

1. Transitioning the on-site review function to an Independent Safety Review (ISR) process; and
2. Modifying the off-site review function [Safety Review Committee (SRC)].

The NRC issued two (2) SERs on June 20, 2000 to YAEC documenting the approval of similar changes that are being proposed. Copies of these SERs are enclosed with this letter. Because the changes to the on and off-site review functions are similar, but not identical in form or facility status, they are required to be submitted for prior NRC approval. Appendix D has been added to the QAPM to provide the details for the implementation of the ISR process and SRC functions.

The specific proposed changes are first to replace the on-site review function with an independent safety review performed by an independent safety reviewer(s). The proposed change includes the qualifications and responsibilities of the independent safety reviewers and is consistent with those previously approved by the NRC. Additionally, the change modifies the functions of the off-site review committee (SRC). The changes are justified based on the reduced scope and complexity of operations at a shutdown facility, with a reduced staff. The responsibilities and review responsibilities of the modified on and off-site review functions would continue to encompass the majority of the functions currently being performed. Regarding independence, Entergy would ensure sufficient independence of reviewers through explicit administrative controls. These controls would be comparable to the controls in place for the current on and off-site review functions. Regarding the changes in SRC's five (5) expertise disciplines versus ten (10) disciplines in ANSI 18.7, the five (5) disciplines proposed are appropriate for a shutdown reactor and are consistent with those previously approved by the NRC. The process also states that other expert disciplines would be made available to the SRC if some future need arose. Also, on August 10, 2015 (Reference 1 to this attachment), the NRC approved changes to the Quality Assurance Program (QAP) for San Onofre Nuclear Generating Station (SONGS) regarding the off-site review function / committee. This proposed change to the VY QAPM is similar to the SONGS QAP, but provides more detail. Although the changes are a reduction in commitment to the previously approved QAPM, it does not reduce its overall effectiveness, since the facility has permanently shut down and the complexities and risks have been reduced, as compared to an operating nuclear power plant. These

modified on and off-site review functions will continue to provide reasonable assurance of compliance with the requirements of Appendix B to 10 CFR Part 50 for activities performed at the VYNPS. The change reflects the reduced risk of a permanently shut down facility and is similar to those previously approved by the NRC. These changes do not reduce the effectiveness of the QAPM and continues to ensure compliance with 10 CFR 50, Appendix B and the SAR quality assurance program description commitments previously accepted by the NRC.

## CONCLUSION

In conclusion, based on the considerations discussed above, the proposed changes will not reduce the effectiveness of the Entergy VY QAPM and it will continue be in compliance with the Commission's regulations, in particular, 10 CFR 50, Appendix B. The QAPM will continue to satisfy the requirements of 10 CFR 71, Subpart H and 10 CFR 72, Subpart G. Also, the SAR quality assurance program description commitments previously accepted by the NRC will continue to be met.

## REFERENCES

1. Letter, USNRC to Southern California Edison Company, “San Onofre Nuclear Generating Station Units 1, 2 and 3 and the Independent Spent Fuel Storage Installation - Review of Changes to the Decommissioning Quality Assurance Program (TAC Nos. MF5215, MF5216, and MF5217),” dated August 10, 2015 (ADAMS Accession No. ML15191A461)

# Attachment 2

Summary of QAPM Changes

| QAPM Section | Change(s) | Evaluation and Justification | Reduction in Commitment? |
|---|---|---|---|
| ***Cover Page*** | | | |
| No changes | | N/A | N/A |
| ***Policy Statement*** | | | |
| One change is proposed to the Policy Statement to delete the following statement "Approved administrative controls are also used to implement controls for certain quality-related equipment and activities that are not safety-related, but support safe storage of spent fuel, or where other regulatory or industry guidance establishes program requirements." Augmented quality will be controlled through approved procedures. . | | Refer to Attachment 1. | Yes |
| ***Table of Contents*** | | | |
| Aligned sections with starting page numbers. | | This is an administrative change that does not involve a reduction in commitment. | No |
| ***Section A - Management*** | | | |
| A.1 | The changes clarify the applicability of the QAPM to safety-related and ITS items and activities. | Refer to Attachment 1. | Yes |
| A.2 | A number of changes were made with the Organization section to reflect changes to the proposed VY site specific organization that is responsible for the implementation of the QAPM functions. The changes add new positions responsible for ISFSI construction, dry fuel transfer activities, radiation protection and chemistry. Responsibilities are realigned for other positions, but there is no overall change to the reporting function, which continues to report through a site executive up to the chief nuclear | These changes to the organizational responsibilities are considered administrative and do not impact the ultimate reporting relationship with the chief nuclear officer. The quality assurance function continues to report up through the site executive responsible for nuclear oversight to the chief nuclear officer. The executive management position and the quality assurance organization (through the nuclear oversight executive) continue to report to the chief nuclear officer, which is consistent with previous organizational relationships for the QAPM functions. New positions of manager responsible for ISFSI construction and dry fuel transfer | No |

| QAPM Section | Change(s) | Evaluation and Justification | Reduction in Commitment? |
|---|---|---|---|
| | officer. | activities and a manager responsible for radiation protection and chemistry have been added to the organization. These clarifications and administrative changes do not constitute a reduction in commitment to the previously approved QAPM. | |
| A.3 to 6 | No changes | N/A | N/A |
| A.7 | The changes clarify the applicability of the QAPM to safety-related and ITS items and activities. | Refer to Attachment 1. | Yes |
| ***Section B - Performance/Verification*** | | | |
| No changes | | N/A | N/A |
| ***Section C - Audit*** | | | |
| No changes | | N/A | N/A |
| ***Section D – Independent Safety Review Function*** | | | |
| Provides clarifying language to reference Appendix D for details of this function. | | This is a clarification so there are no reductions in commitment to the previously approved QAPM. | No |
| ***Appendix A – Safety Related and Important-to-Safety Structures, Systems and Components*** | | | |
| No changes | | N/A | N/A |
| ***Appendix B – Regulatory Commitments*** | | | |
| Several changes to regulatory commitments were made including some editorial changes. The key changes involve the modification of the exceptions to ANSI N18.7 regarding the on and off site review committees, which will now be performed in accordance with Appendix D. Also, a new exception was provided regarding the training and qualifications requirements provided in ANSI/ANS 3.1-1978, including clarifying that there is no longer NRC Licensed Operators required to be maintained in the site organization. | | Refer to Attachment 1. Editorial changes are not reductions in commitment to the previously approved QAPM. | Yes |

| QAPM Section | Change(s) | Evaluation and Justification | Reduction in Commitment? |
|---|---|---|---|
| This includes a change to allow nuclear power plant experience to also include experience acquired at a defueled reactor site which has spent nuclear fuel stored in a spent fuel pool. | | | |
| ***Appendix C – Other General Guidance Documents*** | | | |
| No changes | | N/A | N/A |
| ***Appendix D – Administrative Controls*** | | | |
| Appendix D is being added to provide details for the implementation of the Independent Safety Review (ISR) and Safety Review Committee (SRC) functions. | | Refer to Attachment 1. | Yes |

Enclosure 1

Entergy VYNPS Quality Assurance Program Manual, Revision 4 (59 Pages)

# Vermont Yankee Nuclear Power Station

Docket No. 50-271
License No. DPR-28
Docket No. 72-59

# Quality Assurance Program Manual

## POLICY STATEMENT

Entergy Nuclear Vermont Yankee, LLC (ENVY) ~~-~~and Entergy Nuclear Operations, Inc. (ENOI) shall maintain and operate Vermont Yankee Nuclear Power Station (VY) in a manner that will ensure the health and safety of the public and workers. The facility shall be operated in compliance with the requirements of the Code of Federal Regulations, the applicable Nuclear Regulatory Commission (NRC) Facility Operating Licenses, and applicable laws and regulations of the state and local governments.

The Quality Assurance Program (QAP) described herein and associated implementing documents provide for control of activities that affect the quality of safety-related nuclear plant structures, systems, and components (SSCs). The QAP is also applied to SSCs classified as important-to-safety (ITS) to satisfy the requirements of 10CFR71 and 10CFR72. ~~Approved administrative controls are also used to implement controls for certain quality-related equipment and activities that are not safety-related, but support safe storage of spent fuel, or where other regulatory or industry guidance establishes program requirements.~~

The Quality Assurance Program Manual (QAPM) is the top-level policy document that establishes the manner in which quality is to be achieved and presents our overall philosophy regarding achievement and assurance of quality. Implementing documents assign more detailed responsibilities and requirements and define the organizational interfaces involved in conducting activities within the scope of the QAPM. Compliance with the QAPM and implementing documents is mandatory for personnel directly or indirectly associated with implementation of the QAP.

Responsibility for developing, implementing, and verifying execution of the Quality Assurance Program is delegated to the Chief Nuclear Officer (highest level nuclear executive) and authority for developing and verifying execution of the program to the Vice-President Nuclear Oversight.

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# A. MANAGEMENT

## 1. Methodology

a. The Quality Assurance Program Manual (QAPM) provides an ~~-~~overview of the quality program controls which governs the operation and maintenance of VY safety-~~quality~~ related and important-to-safety (ITS) items and activities. The QAPM describes the quality assurance organizational structure, functional responsibilities, levels of authority, and interfaces.

b. The requirements and commitments contained in the QAPM are mandatory and must be implemented, enforced, and adhered to by all individuals and organizations. Employees are encouraged to actively participate in the continued development of the QAPM as well as its implementation. Changes should be promptly communicated when identified.

c. The QAPM applies to all activities associated with structures, systems, and components that are safety~~-~~related or ITS controlled by 10 CFR 72, as defined in Appendix A. The QAPM also applies to transportation packages controlled by 10 CFR 71. The methods of implementation of the requirements of the QAPM are commensurate with the item's or activity's importance to safety. The applicability of the requirements of the QAPM to other items and activities is determined on a case-by-case basis as defined within approved ~~administrative controls~~procedures. The QAPM implements 10 CFR 50 Appendix B, 10 CFR 71 Subpart H, and 10 CFR 72 Subpart G.

d. The QAPM is implemented through the use of approved procedures (e.g., policies, directives, procedures, instructions, or other documents) which provide written guidance for the control of safety-related and ITS ~~quality~~ related activities (termed quality related activities) and provide for the development of documentation to provide objective evidence of compliance.

## 2. Organization

The organizational structure responsible for implementation of the QAPM is described below. The organizational structure consists of corporate and VY functions. The specific organization titles for the quality assurance functions described are identified in procedures. The authority to accomplish the quality assurance functions described is delegated to the incumbent's staff as necessary to fulfill the identified responsibility.

**A. 2. (continued)**

**a. Corporate Organization**

1. The Entergy Corporation chief executive officer (CEO) is responsible for overall corporate policy and provides executive direction and guidance for the corporation as well as promulgates corporate policy through the Company's senior management staff. Responsibility for developing, implementing, and verifying execution of the Quality Assurance Program is delegated to the chief nuclear officer, the highest level nuclear executive, and authority for developing and verifying execution of the program to the executive responsible for nuclear oversight.
2. The chief nuclear officer, the highest level nuclear executive officer, is responsible for providing top-level direction for the safe and reliable operation of VY's nuclear site. The highest level nuclear executive officer provides guidance with regards to company quality assurance policy. The off-site safety review committee reports to this executive.
3. The executive responsible for oversight establishes the policies, goals, and objectives of the quality assurance policy and provides guidance and interpretation for implementing the company quality assurance policy and is responsible for governance and implementation of the quality assurance program in accordance with regulatory requirements. Independent oversight groups report to this executive.

   (a) The following management positions report to this executive:

   - A management position that is responsible for nuclear oversight activities and is independent of production. This position provides overall direction for the implementation of the quality assurance program.
   - A management position that is responsible for oversight and governance of the QAPM. This manager has authority and responsibility for establishing, controlling, and verifying the implementation and adequacy of the quality assurance program as described in this QAPM including activities related to vendor quality. This position has the authority for Stop Work and responsibility to escalate matters directly to the highest level nuclear executive officer when needed.

**b. VY Site Organization**

The following site management positions describe the typical site QAPM functional responsibilities, which may be delegated to others as established in this document. These individuals may report through an additional layer of management, but shall maintain sufficient authority and organizational freedom to implement the assigned responsibilities.

**A. 2.b. (continued)**

1. The VY executive management position reports to the chief nuclear officer and is responsible for VY ~~operational~~ site activities and implementing quality assurance policies, goals and objectives. These responsibilities also include, but are not limited to functional areas, such as engineering, procurement, security, information technology, project management, emergency planning and technical services. ~~.~~

2. The manager responsible for overall operational activities is accountable for maintaining the facility within the constraints of applicable regulatory requirements and the operating license, including training~~, security and emergency planning~~. Different aspects of these responsibilities may be fulfilled by separate managers. This manager is responsible for operation of the Independent Spent Fuel Storage Installation (ISFSI). The onsite safety review function reports to the manager responsible for facility operations.

3. A manager responsible for engineering and technical services is responsible for the development and maintenance of engineering programs, facility design bases, policies, and procedures and for providing engineering services. Other responsibilities include licensing, corrective action program, records management, document control and information technology. Different aspects of these responsibilities may be fulfilled by separate managers.

4. A manager responsible for quality assurance who has overall authority and responsibility for establishing, controlling, and verifying the implementation and adequacy of the quality assurance program as described in this QAPM. This position has the authority and responsibility to escalate matters directly to the highest level nuclear executive officer when needed. This position reports to the executive responsible for nuclear oversight through the corporate management position responsible for nuclear oversight (offsite).

5. A manager responsible for materials, purchasing, and contracts is responsible for procurement, services, receipt, storage, and issue of materials, parts, and components. Different aspects of these responsibilities may be fulfilled by separate site managers~~, as defined above~~. Supply chain and information technology are not ~~longer~~ a functional area exclusively within the nuclear organizational structure. However, the oversight and governance of these functional areas remain within the nuclear organization through the VY executive management position. The site personnel organizationally report to an executive (supply chain – offsite) who has a functional interface with the VY executive management position.

**A. 2.b. (continued)**

6. A manager responsible for dry fuel transfer and storage related activities. This manager is responsible for construction of the ISFSI pad and facility and fuel transfer activities.

~~5.~~7. A manager responsible for radiation protection and chemistry activities. This manager is responsible for the implementation of the Radiation Protection Program, Radiological Environmental Monitoring Program, Radiological Effluent Controls Program, radioactive waste shipping, Process Control Program and chemistry activities.

**c.** The on-site and off-site safety review function independently reviews activities to provide additional assurance that VY is maintained in accordance with the Operating License and applicable regulations that address nuclear safety. These functions are described in Appendix D.

**3. Responsibility**

a. VY has the responsibility for the scope and implementation of an effective quality assurance program.

b. VY may delegate all or part of the activities of planning, establishing, and implementing the quality assurance program to others, but retains the responsibility for the program's effectiveness.

c. VY is responsible for ensuring that the applicable portion(s) of the quality assurance program is properly documented, approved, and implemented (people are trained and resources are available) before an activity within the scope of the QAPM is undertaken by VY or by others.

d. Individual managers are to ensure that personnel working under their management cognizance are provided the necessary training and resources to accomplish their assigned tasks within the scope of the QAPM.

e. Procedures that implement the QAPM are approved by the management responsible for the applicable quality function. These procedures are to reflect the QAPM and work is to be accomplished in accordance with them.

**4. Authority**

a. When VY delegates responsibility for planning, establishing, or implementing any part of the overall QA program, sufficient authority to accomplish the assigned responsibilities is delegated.

b. The manager responsible for quality assurance has the responsibility and the authority to stop unsatisfactory work and control further processing, delivery, installation, or use of non-conforming items or services. Cost and schedule considerations will not override safety considerations.

~~A. 2.c. (continued)~~

**5. Personnel Training and Qualification**

a. Personnel assigned to implement elements of the quality assurance program are capable of performing their assigned tasks.

b. Training programs are established and implemented to ensure that personnel achieve and maintain suitable proficiency.

c. Personnel training and qualification records are maintained in accordance with procedures.

d. Additional details concerning Personnel Training and Qualification may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.8, 1.58, and 1.146).

**6. Corrective Action**

a. It is the responsibility of each individual to promptly identify and report conditions adverse to quality. Management at all levels encourages the identification of conditions that are adverse to quality.

b. A corrective action program is established and implemented that includes prompt identification, documentation, and correction of conditions adverse to quality. The corrective action program for significant conditions adverse to quality shall require cause determination and a corrective action plan that precludes repetition.

c. Specific responsibilities within the corrective action program may be delegated, but VY maintains responsibility for the program's effectiveness.

d. Non-conforming items are properly controlled to prevent their inadvertent test, installation, or use. They are reviewed and either accepted, rejected, repaired, or reworked.

e. Reports of conditions that are adverse to quality are analyzed to identify trends in quality performance. Significant conditions adverse to quality and significant trends are reported to the appropriate level of management.

f. Additional details concerning corrective action activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**7. Regulatory Commitments**

a. Except where alternatives are identified, VY complies with the QA guidance documents listed on Appendix B. If the guidance in one of these documents is in conflict with the QAPM, the guidance provided in

**A. 7.a. (continued)**

the QAPM is the controlling guidance. Additionally, the following clarifications apply to all guidance documents listed in Appendix B:

1. For modifications and nonroutine maintenance of safety-related or ITS SSCs, guidance applicable to construction-like activities is applicable to comparable facility activities. Except that the inspection of modifications, repairs, rework, and replacements shall be in accordance with the original design and inspection requirements or a documented approved alternative.

2. The definitions provided by Regulatory Guide 1.74 and associated clarifications as described in Appendix B apply wherever the defined term is used in the QAPM and associated guidance documents.

3. Clarification to a guidance document applies wherever the guidance document is invoked.

4. In each of the ANSI standards, other documents (e.g., other standards, codes, regulations, tables, or appendices) are referenced or described. These other documents are only quality assurance program requirements if explicitly committed to in the QAPM. If not explicitly committed to, these documents are not considered as quality assurance program requirements, although they may be used as guidance.

5. Guidance applicable to safety related items and activities is applicable to comparable ITS SSCs, items and activities controlled by 10 CFR 72 and transportation packages controlled by 10 CFR 71. Regulatory Guide 7.10, as defined in Appendix C, provides guidance associated with quality assurance controls that are designated as ITS and the application of these controls in a graded approach. The associated ITS SSCs are defined in Appendix A.

b. The NRC is to be notified of QAPM changes in accordance with 10 CFR 50.54(a)(3) or 10 CFR 50.54(a)(4).

## B. PERFORMANCE/VERIFICATION

### 1. Methodology

a. Personnel performing work activities such as design, engineering, procurement, manufacturing, construction, installation, startup, maintenance, modification, operation, and decommissioning are responsible for achieving acceptable quality.

B. 1. (continued)

b. Personnel performing verification activities are responsible for verifying the achievement of acceptable quality and are different personnel than those who performed the work.

c. Work is accomplished and verified using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

d. Criteria that define acceptable quality are specified, and quality is verified against these criteria.

**2. Design Control**

a. The design control program is established and implemented to assure that the activities associated with the design of systems, components, structures, and equipment and modifications thereto, are executed in a planned, controlled, and orderly manner.

b. The program includes provisions to control design inputs, processes, outputs, changes, interfaces, records, and organizational interfaces.

c. Design inputs (e.g., performance, regulatory, quality, and quality verification requirements) are to be correctly translated into design outputs (e.g., specifications, drawings, procedures, and instructions).

d. The final design output is to relate to the design input in sufficient detail to permit verification.

e. The design process is to ensure that items and activities are selected and independently verified consistent with their importance to safety to ensure they are suitable for their intended application.

f. Changes to final designs (including field changes and modifications) and dispositions of non-conforming items to either use-as-is or repair are to be subjected to design control measures commensurate with those applied to the original design and approved by the organization that performed the original design or a qualified designee.

g. Interface controls (internal and external between participating design organizations and across technical disciplines) for the purpose of developing, reviewing, approving, releasing, distributing, and revising design inputs and outputs are defined in procedures.

h. Design documentation and records, which provide evidence that the design and design verification process was performed in accordance with this program, shall be collected, stored, and maintained in accordance with documented procedures. This documentation includes final design documents, such as drawings and specifications, and revisions thereto

and documentation which identifies the important steps, including sources of design inputs that support the final design.

**B. 2. (continued)**

i. Additional details concerning design control activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.64).

**3. Design Verification**

a. A program is established and implemented to verify the acceptability of design activities and documents for the design of items. The selection and incorporation of design inputs and design processes, outputs, and changes are verified.

~~**B. 3. (continued)**~~

b. Verification methods include, but are not limited to, design reviews, alternative calculations, and qualification testing. The extent of this verification will be a function of the importance to safety of the item, the complexity of the design, the degree of standardization, the state of the art, and the similarity with previously proven designs. Standardized or previously proven designs will be reviewed for applicability prior to use.

c. When a test program is used to verify the acceptability of a specific design feature, the test program is to demonstrate acceptable performance under conditions that simulate the most adverse design conditions that are expected to be encountered.

d. Independent design verification is to be completed before design outputs are used by other organizations for design work and before they are used to support other activities such as procurement, manufacture, or construction. When this timing cannot be achieved, the unverified portion of the design is to be identified and controlled. In all cases, the design verification is to be completed before relying on the item to perform its function.

e. Individuals or groups responsible for design reviews or other verification activities shall be identified in procedures and their authority and responsibility shall be defined and controlled. Design verification shall be performed by any competent individuals or groups other than those who performed the original design but who may be from the same organization. The designer's immediate supervisor may perform the design verification provided:

1. the supervisor is the only technically qualified individual capable of performing the verification,

2. the need is individually documented and approved in advance by the supervisor's management, and

3. the frequency and effectiveness of the supervisor's use as a design verifier are independently verified to guard against abuse.

**B. 3. (continued)**

f. Design verification procedures are to be established and implemented to ensure that an appropriate verification method is used, the appropriate design parameters to be verified are chosen, the acceptance criteria are identified, the verification is satisfactorily accomplished, and the results are properly recorded.

g. Additional details concerning design verification activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.64).

**4. Procurement Control**

a. A program is established and implemented to ensure that purchased items and services are of acceptable quality.

b. The program includes provisions for evaluating prospective suppliers and selecting only qualified suppliers.

c. The program includes provisions for ensuring that qualified suppliers continue to provide acceptable products and services.

d. The program includes provisions (e.g., source verification, receipt inspection, pre-installation and post-installation tests, and certificates of conformance) for accepting purchased items and services.

e. Applicable technical, regulatory, administrative, and reporting requirements (e.g., specifications, codes, standards, tests, inspections, special processes, and 10 CFR Part 21) are invoked for procurement of items and services.

f. The program includes provisions for ensuring that documented evidence of an item's conformance to procurement requirements is available at the site before the item is placed in service or used unless otherwise specified in procedures.

g. The program includes provisions for ensuring that procurement, inspection, and test requirements have been satisfied before an item is placed in service or used unless otherwise specified in procedures.

h. The procurement of components, including spare and replacement parts, is subject to quality and technical requirements suitable for their intended service.

i. Appropriate controls for the selection, determination of suitability for intended use (critical characteristics), evaluation, receipt, and quality

evaluation of commercial grade items are to be imposed to ensure that the items will perform satisfactorily in service.

j. Additional details concerning procurement control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.33 and 1.123).

**5. Procurement Verification**

a. A program is established and implemented to verify the quality of purchased items and services at intervals and to a depth consistent with the item's or service's importance to safety, complexity, and quantity and the frequency of procurement.

b. The program is executed in all phases of procurement. As necessary, this may require verification of activities of suppliers below the first tier.

~~**B. 5. (continued)**~~

c. Additional details concerning procurement verification may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.123 and 1.144).

**6. Identification and Control of Items**

a. A program is established and implemented to identify and control items to prevent the use of incorrect or defective items.

b. Identification of each item is maintained throughout fabrication, erection, installation, and use so that the item can be traced to its documentation. Traceability is maintained to an extent consistent with the item's importance to safety.

**c.** Additional details concerning identification and control of items may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**7. Handling, Storage, and Shipping**

a. A program is established and implemented to control the handling, storage, shipping, cleaning, and preserving of items to ensure the items maintain acceptable quality.

b. Special protective measures (e.g., containers, shock absorbers, accelerometers, inert gas atmospheres, specific moisture content levels, and temperature levels) are specified and provided when required to maintain acceptable quality.

c. Specific procedures are developed and used for cleaning, handling, storage, packaging, shipping, and preserving items when required to maintain acceptable quality.

d. Items are marked and labeled during packaging, shipping, handling, and storage to identify, maintain, and preserve the items' integrity and indicate the need for special controls.

e. Additional details concerning handling, storage, and shipping activities may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.38).

**8. Test Control**

a. A test control program is established and implemented to demonstrate that items will perform satisfactorily in service.

b. Criteria are defined that specify when testing is required.

~~**B. 8. (continued)**~~

c. The test control program includes, as appropriate, proof tests before installation, pre-operational tests, post-maintenance tests, post-modification tests, and operational tests.

d. Test procedures are developed that include:

1. instructions and prerequisites to perform the test,
2. use of proper test equipment,
3. acceptance criteria, and
4. mandatory inspections as required.

e. Test results are evaluated to assure that test objectives and inspection requirements have been satisfied.

f. Unacceptable test results shall be evaluated.

g. Additional details concerning test control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**9. Measuring and Test Equipment Control**

a. A program is established and implemented to control the calibration, maintenance, and use of measuring and test equipment. Measuring and test equipment does not include permanently installed operating equipment or test equipment used for preliminary checks where data obtained will not be used to determine acceptability or be the basis for design or engineering evaluation. Additionally, calibration and control

measures are not required for rulers, tape measures, levels and other such devices if normal commercial manufacturing practices provide adequate accuracy.

b. The types of equipment covered by the program (e.g., instruments, tools, gauges, and reference and transfer standards) are defined in procedures.

c. Measuring and test equipment is calibrated at specified intervals or immediately before use on the basis of the item's required accuracy, intended use, frequency of use, and stability characteristics and other conditions affecting its performance.

d. Measuring and test equipment is labeled, tagged, or otherwise controlled to indicate its calibration status and to ensure its traceability to calibration test data.

**B. 9. (continued)**

e. Measuring and test equipment is calibrated against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated or, when this is not possible, have an accuracy that ensures the equipment being calibrated will be within the required tolerance.

~~**B. 9. (continued)**~~

f. If nationally recognized standards exist, calibration standards are to be traceable to them. Except where calibration standards with the same accuracy as the instruments being calibrated are shown to be adequate for the requirements, calibration standards are to have a greater accuracy than the standards being calibrated.

g. Measuring and test equipment found out of calibration is tagged or segregated. The acceptability shall be determined of items measured, inspected, or tested with an out-of-calibration device.

h. Additional details concerning measuring and test equipment control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.30, 1.33, 1.94, 1.116, and 1.123).

**10. Inspection, Test, and Operating Status**

a. The status of required inspections and tests and the operating status of items is verified before release, fabrication, receipt, installation, test, and use, as applicable. This verification is to preclude inadvertent bypassing of inspections and tests and to prevent inadvertent operation of controlled equipment.

b. The application and removal of inspection, test, and operating status indicators are controlled in accordance with procedures.

c. Additional details concerning inspection, test, and operating status control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**11. Special Process Control**

a. A program is established and implemented to ensure that special processes are properly controlled.

b. The criteria that establish which processes are special are described in procedures. The following are special processes:

1. welding,
2. heat-treating,
3. NDE (Non-Destructive Examination),
4. chemical cleaning, and

**B. 11.b. (continued)**

5. unique fabricating or testing processes that require in-process controls.

~~**B. 11. (continued)**~~

c. Special processes are accomplished by qualified personnel, using appropriate equipment, and procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

d. Additional details concerning special process control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**12. Inspection**

a. A program is established and implemented for inspections of activities in order to verify conformance to the documented instructions, procedures and drawings for accomplishing the activity. The inspection program may be implemented by or for the organization performing the activity to be inspected.

b. Provisions to ensure inspection planning is properly accomplished are to be established. Planning activities are to identify the characteristics and activities to be inspected, the inspection techniques, the acceptance criteria, and the organization responsible for performing the inspection.

c. Provisions to identify inspection hold points, beyond which work is not to proceed without the consent of the inspection organization, are to be defined.

d. Inspection results are to be documented by the inspector and reviewed by qualified personnel.

e. Unacceptable inspection results shall be evaluated and resolved in accordance with procedures.

f. Inspections are performed by qualified personnel other than those who performed or directly supervised the work being inspected. While performing the inspection activity the inspectors functionally report to the associated manager responsible for quality assurance.

g. Additional details concerning inspections may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.33 and 1.58).

**13. Corrective Action**

a. Procedures shall provide for identification, evaluation, and resolution of conditions adverse to quality.

b. Reworked, repaired, and replacement items are to be inspected and tested in accordance with the original inspection and test requirements or specified alternatives.

**B. 13. (continued)**

c. Additional details concerning corrective action activities may be found in Section A.6 and the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**14. Document Control**

a. A program is established and implemented to control the development, review, approval, issue, use, and revision of documents.

b. The scope of the document control program includes:

1. safety analysis report,
2. design documents,
3. procurement documents,
4. Technical Specifications,
5. procedures, manuals, and plans,

6. corrective action documents, and
7. other documents as defined in procedures.

c. Revisions of controlled documents are reviewed for adequacy and approved for release by the same organization that originally reviewed and approved the documents or by a designated organization that is qualified and knowledgeable.

d. Copies of controlled documents are distributed to and used by the person performing the activity.

e. The distribution of new and revised controlled documents is in accordance with procedures. Superseded documents are controlled.

f. Additional details concerning document control may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.33).

**15. Records**

a. A program is established and implemented to ensure that sufficient records of items and activities (e.g., design, engineering, procurement, manufacturing, construction, inspection and test, installation, pre-operation, startup, operations, maintenance, modification, decommissioning, and audits) are generated and maintained to reflect completed work.

**B. 15. (continued)**

b. The program provides provisions for the administration, receipt, storage, preservation, safekeeping, retrieval, and disposition of records.

c. The program includes provisions for the use of various record storage media to maintain QA records. Procedures are developed to implement the regulatory guidance associated with the media used. The NRC Generic Letter 88-18 “Plant Record Storage on Optical Disk” is implemented for optical disk media. The Regulatory Issue Summary 2000-18 “Guidance on Managing QA Records in Electronic Media” is implemented for electronic media.

d. Additional details concerning record requirements may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guide 1.88).

## C. AUDIT

**1. Methodology**

a. Personnel responsible for carrying out audits are maintained cognizant of day-to-day activities by the ongoing involvement in the quality assurance program requirements so that they can act in a management advisory function.

b. Organizations performing audits are to be technically and performance oriented commensurate with the activity being reviewed.

c. Personnel performing audits have no direct responsibilities in the area they are assessing.

d. Audits are accomplished using instructions, procedures, or other appropriate means that are of a detail commensurate with the activity's complexity and importance to safety.

**2. Performance**

a. A program of planned and periodic audits is established and implemented to confirm that activities affecting quality comply with the QAPM and that the QAPM has been implemented effectively. Audit frequencies will be implemented as required by the applicable Code of Federal Regulations, safety analysis report, and commitments by various correspondences to the NRC. Audits will be conducted at a frequency in accordance with either Section C.2.a.1 or Section C.2.a.2 below.

1. Audit frequencies are determined based on regulatory commitments or site requirements.

**C. 2.a. (continued)**

2. Audit schedules assure that the following areas are audited at the indicated frequencies, or more frequently as performance dictates.

   a. The conformance of each unit's operation to provisions contained within the Technical Specifications and applicable license conditions is audited at least once every 24 months.

   b. The performance, training, and qualifications of the entire staff are audited at least once every 24 months.

   c. The results of actions taken to correct deficiencies occurring in unit equipment, structure, systems, or method of operation that affect nuclear safety is audited at least once every 24 months.

   d. The performance of activities required by the QAPM to meet the criteria of 10 CFR 50, Appendix B is audited at least once every 24 months.

e. The Offsite Dose Calculations Manual and Process Control Program and implementing procedures are audited at least once every 24 months.

f. The radiological environmental monitoring program and the results thereof is audited at least once every 24 months.

g. A fire protection and loss prevention program inspection and audit shall be performed using either off-site licensee personnel or an outside fire protection firm at least once every 24 months.

h. The fire protection program and implementing procedures audit shall be performed at least once every 24 months.

i. A fire protection and loss prevention program inspection and audit shall be performed using an outside fire consultant at least once every 36 months.

3. A grace period of 90 days may be applied to the 24-month frequency for internal audits. For activities deferred in accordance with the 90-day grace period, the next performance due date will be based on their originally scheduled date.

4. The audit schedule for the ISFSI may combine audits to cover the areas defined in section C.2.a.2 that are invoked by the ISFSI technical specifications.

b. Audits shall provide an objective evaluation of quality related practices, procedures, instructions, activities, and items and a review of documents and records, as applicable.

**C. 2. (continued)**

c. Audits shall be performed in accordance with approved written procedures or checklists. Items from previous audits shall be reviewed and reaudited, as appropriate. The checklists are used as guides to the auditor.

d. Scheduling and resource allocation are based on the status and safety importance of the activity or process being assessed.

e. Scheduling is dynamic and resources are supplemented when the effectiveness of the quality assurance program is in doubt.

f. Audit reports are written and distributed to the appropriate levels of management for review. Follow-up action, including re-look at deficient areas, is initiated as deemed appropriate.

g. Implementation of delegated portions of the quality assurance program is assessed.

h. Audits are conducted using predetermined acceptance criteria.

i. Additional details concerning audits may be found in the Regulatory Guides and associated Standards as committed to in Section A.7 and Appendix B (e.g., Regulatory Guides 1.33 and 1.144).

## D. INDEPENDENT SAFETY REVIEW

### 1. Description

a. Independent safety review is performed to meet VY's commitment to NUREG-0737, Section I.B.1.2, "Independent Safety Engineering Group," as described in the unit's safety analysis report. This function is described in Appendix D, Section 1.0.

# Appendix A

## SAFETY RELATED AND IMPORTANT-TO-SAFETY STRUCTURES, SYSTEMS AND COMPONENTS

The pertinent quality assurance requirements of 10CFR50 Appendix B, 10CFR 71 Subpart H and 10 CFR 72 Subpart G will be applied, as a minimum, to all quality activities affecting safety related and Important-to-Safety SSCs associated with spent fuel storage and transportation package.

**NOTE**

**The safety classification of systems, structures and components (SSCs) at~~of~~ the VY facility and the VY Independent Spent Fuel Storage Installation (ISFSI) may be revised based on engineering evaluations and a revision to the VY safety analysis report. These modifications are controlled in accordance with the design control process and are not considered a reduction in the commitments to the QAPM.**

**The quality classification of NRC Licensed ISFSI Dry Fuel Storage Components and Transportation Packages may not be revised using the VY Design Control Process. These modifications must be made by the NRC Certificate Holder. The Certificate Holder is responsible for design and licensing controls for these components under their NRC approved Quality Assurance Program. VY utilizes these types of components and packages under the provisions of a NRC General License for Radioactive Material Transportation Packages (10 CFR 71) and Spent Fuel Storage (10 CFR 72).**

Safety related SSCs are defined within the site specific system safety function sheet process and are controlled through engineering processes.

Items and services associated with Radioactive Material Transport Packages as described in 10 CFR 71 and Spent Fuel Storage as described in 10 CFR 72 will also fall under the requirements of the QAP.

Important-to-Safety SSCs associated with spent fuel storage and radioactive material transportation packages are defined below:

### IMPORTANT-TO-SAFTY AS DEFINED BY 10 CFR 71 AND 10 CFR 72

### A. Dry Spent Fuel Storage (10 CFR 72)

| SSC | Quality Category | Design/License Responsible |
|---|---|---|
| Multipurpose Canister and Fuel Basket Assembly | A | Holtec Intl. |
| Vertical Concrete Cask | B | Holtec Intl. |
| Transfer Cask and Adapter Plate | B | Holtec Intl. |
| ISFSI Pad | C | VY |
| Lifting Yoke | B | Holtec Intl. |
| Damaged Fuel Can | A | Holtec Intl. (Later) |

# Appendix A

## SAFETY RELATED AND IMPORTANT-TO-SAFETY STRUCTURES, SYSTEMS AND COMPONENTS

### B. Transport of Spent Fuel and GTCC Waste (10 CFR 71)

| SSC | Quality Category | Design/License Responsible |
|---|---|---|
| Multipurpose Canister and Fuel Basket Assembly | A | Holtec Intl. |
| Damaged Fuel Can | A | Holtec Intl. (Later) |
| Transportable Storage Canister and Basket Assembly For GTCC Waste Containers | A | TBD |
| Transport Cask | A | Holtec Intl. |

### C. Radioactive Material Transport Packages (10 CFR 71)

Radioactive Material Transport Packages subject to the provisions of 10 CFR 71, Subpart C, “General Licenses” are “Important-to-Safety” and subject to the applicable requirements of the QAP.

NOTES:

1. See Holtec Intl. Safety Analysis Report (SAR) and associated Holtec specifications for additional classification information.

2. See Holtec Transport Cask Safety Analysis Report and associated Holtec specifications for additional classification information.

3. For the definition of Quality Categories A, B, and C refer to NUREG/CR-6407.

4. VY engineering procedures define the safety classification assigned to the ISFSI pad.

# Appendix B
# Regulatory Commitments

## A. Regulatory Guide 1.8 Revision 1, dated September 1975

| | | Clarification/Exception |
|---|---|---|
| **1.** | General | VY is committed to Sections 1 – 4 of ANSI/ANS 3.1-1978 with following clarifications and exceptions.<br>Qualification requirements for personnel shall meet ANSI/ANS 3.1-1978 except the following:<br>a. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, 1987.<br>b. Managers required to be a Certified Fuel Handler are specified in the Technical Specifications.<br>~~c. A Certified Fuel Handler shall be qualified in accordance with the applicable requirements of 10 CFR 55.~~<br>Individuals filling positions who met the previous commitment at the time of implementation of this commitment can be considered to meet any more restrictive aspects of the requirements of this commitment for that position without further review and documentation. There are no longer requirements to maintain Licensed Operators at the facility. |
| **2.** | General | The following qualifications may be considered equivalent to a bachelor's degree:<br>a. 4 years of post-secondary schooling in science or engineering,<br>b. 4 years of applied experience at a nuclear facility in the area for which qualification is sought,<br>c. 4 years of operational or technical experience/training in nuclear power, or<br>d. any combination of the above totaling 4 years.<br>Years of experience used to meet the education requirements as allowed by this exception shall not be used to also meet the experience requirements. |

# Appendix B
# Regulatory Commitments

## A. Regulatory Guide 1.8 (continued)

| | | |
|---|---|---|
| **3.** | ANSI/ANS 3.1 Section 4 | Individuals assigned to professional-technical comparable positions shall have the authority and specified qualifications to accomplish the functional responsibilities of the position. |
| **4.** | ANSI/ANS 3.1 Section 4.4.5 | Individuals who do not possess the formal education and minimum experience requirements for the manager responsible for quality assurance should not be eliminated automatically when other factors provide sufficient demonstration of their abilities. These other factors are evaluated on a case-by-case basis and approved and documented by senior management. As a minimum, the Special Requirements of ANSI/ANS 3.1-1993 Section 4.3.7 must be met if the manager responsible for Quality Assurance does not meet the requirements of section 4.4.5 of ANSI/ANS 3.1-1978. |
| **5.** | ANSI/ANS 3.1 Section 5 | VY will maintain a training program for the unit staff that meets the applicable regulations and either a) is accredited by the National Nuclear Accrediting Board (NNAB) or b) meets the standards of section 5 of ANSI/ANS 3.1-1978. |
| 6. | ANSI/ANS 3.1 Sections 4.3.1 and 4.5.1 | Nuclear power plant experience is amended to also include experience acquired at a defueled reactor site that is directly related to the storage or handling of spent nuclear fuel in a spent fuel pool. Specifically, individuals will obtain the necessary on site experience to fill the position of Certified Fuel Handler or operators, based on their assigned functions and validation of equivalent training and experience rather than requiring at least six months of the nuclear power plant experience at the plant for which an individual seeks a license or to be an operator as defined in Sections 4.3.1 and 4.5.1 of ANSI/ANS 3.1-1978. |

# Appendix B
# Regulatory Commitments

## B. Regulatory Guide 1.30, dated August 1972

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.4 General | ANSI N45.2.4 identifies various tests to be performed. The applicability of these tests will be determined as discussed in QAPM Section B.8 and based upon the significance of change or modification. |
| **2.** | ANSI N45.2.4 Section 3 | Documented routine inspections and audits of the storage area may be performed instead of the requirements of this Section. |
| **3.** | ANSI N45.2.4 Section 5.2 | In some cases, testing requirements may be met by post-installation surveillance testing in lieu of a special post-installation test. |
| **4.** | ANSI N45.2.4 Section 6.2.1 | The last sentence of this section states: "Items requiring calibration shall be tagged or labeled on completion indicating date of calibration and identity of the person that performed the calibration." Instead of requiring the tagging or labeling of all equipment this statement is changed to require the equipment to be suitably marked to indicate the date of the next required calibration and the identity of the person that performed the calibration. |

# Appendix B
# Regulatory Commitments

## C. Regulatory Guide 1.33 Revision 2, dated February 1978

| | | Clarification/Exception |
|---|---|---|
| **1.** | Section C.1 | VY will provide procedures for the guide's Appendix A activities as discussed, applicable to VY. However, VY does not consider all activities listed to be "safety-related" (e.g., activities in 7.e). |
| **2.** | Section C.4 | This section establishes minimum 2-year audit frequency for all safety related functions and recommends audit frequencies specific to Corrective Action, Facility Operation, and Staff Performance, Training, and Qualifications. VY will perform audits at frequencies as discussed in QAPM Section C.2.a instead of this section. |
| **3.** | ANSI N18.7 Section 1 | Sentences 4 and 5 state, "However, applicable sections of this standard should be used as they apply to related activities. Activities included are: Design Changes, Purchasing, Fabricating..." With regard to radioactive material transportation activities, VY will only implement the requirements associated with those activities conducted in accordance with the applicable NRC Quality Assurance Program Approval for Radioactive Material Packages. |
| **4.** | ANSI N18.7 Section 4.3~~.1~~ | The on and off-site review committee requirements will be satisfied as described in Appendix D of the QAPM.~~The specific areas of experience described in this section are not applicable to the on-site safety review committee, but the committee must be comprised of site operating or engineering supervisory personnel. Additionally, the off-site safety review committee needs to contain experience in only a majority of the areas.~~ |
| **5.-10.~~5.~~** | ~~ANSI N18.7 Section 4.3.2.3~~ | Deleted~~The statement that "no more than a minority of the quorum shall have line responsibility for the operation of the plant" is not applicable to the on-site safety review committee.~~ |
| **11.** | ANSI N18.7 Section 4.5 | This section establishes minimum 2-year audit frequency for all safety related functions. VY will perform audits at frequencies as discussed in QAPM Section C.2.a instead of this section. |
| **12.** | ANSI N18.7 Section 4.5 | The independent review body discussed in this section is the off-site safety review committee defined in Appendix D. |

# Appendix B
# Regulatory Commitments

| | | |
|---|---|---|
| **13.** | ANSI N18.7 Section 5.1 | Instead of the requirements of this section to have a summary document, a method of cross-referencing these requirements to the implementing procedures will be maintained. |
| **14.** | ANSI N18.7 Section 5.2.2 | The person who is a Certified Fuel Handler, based on the Technical Specifications for VY and approves a temporary change to a procedure is not required to be in charge of the shift. |

## ~~Appendix B~~
## ~~Regulatory Commitments~~

~~C.~~ ~~Regulatory Guide 1.33 (continued)~~

| | | ~~Clarification/Exception~~ |
|---|---|---|
| ~~6.~~ | ~~ANSI N18.7 Section 4.3.4.(1) & (2)~~ | ~~10 CFR 50.59 was revised through Federal Register Notice 19991001 R1N3150-AF94 eliminating the terms "safety evaluation" and "unreviewed safety question." The term "safety evaluation" has been replaced with 10 CFR 50.59 "evaluation." The term "unreviewed safety question," as defined in the previous version of 10 CFR 50.59 (a)(2), was replaced by criteria provided in 50.59(c)(2) to determine if a license amendment pursuant to 50.90 is required prior to implementing the change, test, or experiment.~~ |
| ~~7.~~ | ~~ANSI N18.7 Section 4.3.4(2)~~ | ~~Reviews associated with changes to the technical specifications will be performed in accordance with Section 4.3.4(3) instead of this section.~~ |
| ~~8.~~ | ~~ANSI N18.7 Section 4.3.4(3)~~ | ~~Revision to proposed Technical Specification changes only requires review in accordance with this section when the revision involves a significant change to the technical basis for the proposed change. The independent review body discussed in this section is the on-site safety review committee. Voting members having a potential conflict of interest refrain from voting on documents under review.~~ |
| ~~9.~~ | ~~ANSI N18.7 Section 4.3.4(4)~~ | ~~In place of the requirements of this section, the on-site and off-site safety review committees shall review facility operations to detect potential nuclear safety hazards and all reports made in accordance with 10 CFR 50.73.~~ |
| ~~10.~~ | ~~ANSI N18.7 Section 4.3.4(5)~~ | ~~An example of the matters reviewed by the on-site safety review committee in accordance with this section is a change to the Emergency Plan (except editorial changes).~~ |

## Appendix B
## Regulatory Commitments

C. Regulatory Guide 1.33 (continued)

| | | Clarification/Exception |
|---|---|---|

| | | |
|---|---|---|
| **15.** | ANSI N18.7 Section 5.2.2 | In addition to the temporary procedure change process described for changes which clearly do not change the intent of a procedure, temporary procedure changes which may change the intent of a procedure may be made following the process described in this section. Except that the person normally responsible for approving revisions to the procedure is the approval authority for the change. |
| **16.** | ANSI N18.7 Section 5.2.6 | Instead of the requirements of this section concerning non-conforming conditions, non-conforming conditions will be evaluated and controlled in accordance with the corrective action program. |
| **17.** | ANSI N18.7 Section 5.2.6 | The requirement of the fifth paragraph of this section to have a log of the status of temporary modifications is not applicable to temporary modifications for routine tasks installed in accordance with procedures. These procedures shall provide assurance that approvals are obtained, temporary modification activities are independently verified by an individual cognizant of the purpose and the effect of the temporary modification, and that activities are adequately documented to indicate the status of the temporary modification. |
| **18.** | ANSI N18.7 Section 5.2.7.1 | This section will be implemented by adding the words “Where practical” in front of the first and fourth sentences of the fifth paragraph. For modifications where the requirements of the fourth sentence are not considered practical, a review in accordance with the provisions of 10 CFR 50.59 will be conducted. |
| **19.** | ANSI N18.7 Section 5.2.8 | In lieu of a “master surveillance schedule,” the following requirement shall be complied with: “A surveillance testing schedule(s) shall be established reflecting the status of all in-plant surveillance tests and inspections.” |
| **20.** | ANSI N18.7 Section 5.2.9 | The requirements of the Physical Security Plan shall be implemented in place of these general requirements. |
| **21.** | ANSI N18.7 Section 5.2.13.1 | Consistent with ANSI N45.2.11 Section 7.2, minor changes to documents, such as inconsequential editorial corrections, or changes to commercial terms and conditions may not require that the revised document receive the same review and approval as the original documents. |

## Appendix B
## Regulatory Commitments

**C. Regulatory Guide 1.33 (continued)**

| | | Clarification/Exception |
|---|---|---|
| **22.** | ANSI N18.7 Section 5.2.14 | Where marking, tagging, or physical separation of the non-conforming item is not feasible, the non-conforming item may be controlled by the use of appropriate documentation. |
| **23.** | ANSI N18.7 Section 5.2.15 | Required procedure reviews following the occurrences discussed in Section 5.2.15, paragraph 3, sentence 3, are determined and controlled in accordance with the QAPM Section A.6 instead of this section. |
| **24.** | ANSI N18.7 Section 5.2.15 | This section requires plant procedure review by an individual knowledgeable in the area affected by the procedure no less frequently than every two years to determine if changes are necessary or desirable. Instead of this review, controls are in effect to ensure that procedures are reviewed for possible revision upon identification of new or revised source material potentially affecting the intent of procedures. |
| **25.** | ANSI N18.7 Section 5.3.9 | Instead of the requirements of this section, the format and content of the emergency operating procedures follow the applicable NRC approved format for VY. |
| **26.** | ANSI N18.7 Section 5.3.9.3 | VY's NRC accepted Emergency Plan will be implemented in lieu of the requirements in this section. |

# Appendix B
# Regulatory Commitments

## D. Regulatory Guide 1.37, dated March 1973

| | | Clarification/Exception |
|---|---|---|
| **1.** | General | Instead of using the cleanliness level classification system of ANSI N45.2.1, the required cleanliness for specific items and activities is addressed on a case-by-case basis. Cleanliness is maintained, consistent with the work being performed to prevent introduction of foreign material. As a minimum, cleanliness inspections are performed prior to system closure and such inspections are documented. |
| **2.** | Section C.3 | The water quality for final flushes of fluid systems and associated components is at least equivalent to the quality of the operating system water, except for the oxygen and nitrogen content. |
| **3.** | Section C.4 | As an alternate to the requirements of this section, contamination levels in expendable products may be based upon safe practices and industrial availability with documented engineering evaluations. Contaminant levels are controlled such that subsequent removal by standard cleaning methods results in the achievement of final acceptable levels that are not detrimental to the materials. |
| **4.** | ANSI N45.2.1 Section 5 | Any nonhalogenated material may be used which is compatible with the parent material not just plastic film. |

# Appendix B
# Regulatory Commitments

## E. Regulatory Guide 1.38 Revision 2, dated May 1977

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.2 Section 3.2 | Storage of an item in a higher-level storage area meets the lower level storage requirements. |
| **2.** | ANSI N45.2.2 Section 3.2 | As an alternate to the requirements in Section 3.2.1 items (4), (5), and 7, Section 3.2.2, Section 3.2.3 item (1), and Section 3.2.4 item (2), the storage atmosphere may be controlled such that it is free of harmful contaminants in concentration that could produce damage to the stored item and protecting weld end preparations and threads by controlling the manner in which the item is stored. |
| **3.** | ANSI N45.2.2 Section 3.7.1 | Cleated, sheathed boxes may be used up to 1000 lb. rather than 500 lb. as specified in 3.7.1(1). Special qualification testing may be required for loads over 1000 lb. |
| **4.** | ANSI N45.2.2 Section 3.7.2 | Skids and runners will normally be fabricated from a minimum 2 X 4 inch nominal lumber size and laid flat except where this is impractical because of the small dimensions of the container. If forklift handling is required, minimum floor clearance for forklift tines will be provided. |
| **5.** | ANSI N45.2.2 Section 4.3.4 | Inspections of packages and/or preservative coatings are made immediately prior to loading rather than after loading. |
| **6.** | ANSI N45.2.2 Section 5.2.1 | Warehouse personnel will normally visually scrutinize incoming shipments for damage of the types listed in this section, this activity is not necessarily performed prior to unloading. Separate documentation of the shipping damage inspection is not necessary. Release of the transport agent after unloading and the signing for receipt of the shipment provides adequate documentation of completion of the shipping damage inspection. Any non-conformances noted will be documented and dispositioned. Persons performing the visual scrutiny during unloading are not considered to be performing an inspection function as defined under Reg. Guide 1.74; therefore, while they will be trained to perform this function, they may not be certified (N45.2.6) as an inspector. |

# Appendix B
# Regulatory Commitments

## E. Regulatory Guide 1.38 (continued)

| | | Clarification/Exception |
|---|---|---|
| **7.** | ANSI N45.2.2 Section 5.2.2 | The second division of this subsection requires six additional inspection activities if an item was not inspected or examined at the source. VY will consider that a source inspection has been conducted if the supplier of the item is required to comply with ANSI N45.2.2 for the purchased item and if the supplier's program has been audited and found acceptable in the area (i.e., the supplier performs a source inspection of his supplier or conducts a receipt inspection that includes, as applicable, the six additional items listed).<br><br>Instead of the requirement that receiving inspections be performed in an area equivalent to the level of storage required for the item, receiving inspections will be performed in a manner and in an environment which does not endanger the requisite quality of an item. The receiving inspection's location environmental controls may be less stringent than storage environmental requirements for that item; however, the short time spent in the less stringent receiving inspection area shall be of such duration that it will not adversely affect the item being received. |
| **8.** | ANSI N45.2.2 Section 5.2.3 | The "Special Inspection" procedure is not required to be attached to the item or container but shall be readily available to inspection personnel. |
| **9.** | ANSI N45.2.2 Section 6.2.1 | Items which fall within the Level D classification of the standard will be stored in an area which may be posted to limit access, but other positive controls such as fencing or guards may not be provided. |
| **10.** | ANSI N45.2.2 Section 6.2.4 | The sentence is replaced with the following: "The use or storage of food, drinks, and salt tablet dispensers in any storage area shall be controlled and shall be limited to designated areas where such use or storage is not deleterious to stored items." |

# Appendix B
# Regulatory Commitments

## E. Regulatory Guide 1.38 (continued)

| | | Clarification/Exception |
|---|---|---|
| **11.** | ANSI N45.2.2 Section 6.2.5 | The sentence is replaced with the following: “Exterminators or other appropriate measures shall be used to control animals to minimize possible contamination and mechanical damage to stored material. If evidence of animal activity is detected, a survey or inspection will be utilized to determine the extent of the damage.” |
| **12.** | ANSI N45.2.2 Section 6.3.3 | An alternate to the stated requirement is the following: "Hazardous chemicals, paints, solvents, and other materials of a like nature shall be stored in approved cabinets or containers which are not in close proximity to installed systems required for safe shutdown." |
| **13.** | ANSI N45.2.2 Section 6.4.2 | Care of items in storage shall be exercised in accordance with the following: ”Types of components that could require maintenance while in storage shall be identified and evaluated for specific maintenance requirements. Maintenance activities 6.4.2 (6) through 6.4.2 (8) listed in this requirement shall be considered during this evaluation and any deviations shall be justified and documented.” |
| **14.** | ANSI N45.2.2 Section 6.5 | The last sentence of this section is not applicable to the operations phase. |
| **15.** | ANSI N45.2.2 Section 6.6 | VY will comply with this section’s requirements with the clarification that, for record purposes, only the access of personnel without key cards into indoor storage areas shall be recorded. Unloading or pickup of material shall not be considered "access," nor shall inspection by NRC or other regulatory agents, nor shall tours by non-licensee employees who are accompanied by licensee employees. |

# Appendix B
# Regulatory Commitments

## E. Regulatory Guide 1.38 (continued)

| | | Clarification/Exception |
|---|---|---|
| **16.** | ANSI N45.2.2 Section 7.3 | Re-rating hoisting equipment will be considered only when necessary. Prior to performing any lift above the load rating, the equipment manufacturer must be contacted for his approval and direction. The manufacturer must be requested to supply a document granting approval for a limited number of lifts at the new rating and any restrictions involved, such as modifications to be made to the equipment and the test lift load. At all times, the codes governing re-rating of hoisting equipment must be observed. |
| **17.** | ANSI N45.2.2 Appendix (A-3) Section A.3.4.1 | During printing of the standard, a transposition occurred between the last sentence of A3.4.1(4) and A3.4.1(5). The correct requirements are: (4) "However, preservatives for inaccessible inside surfaces of pumps, valves and pipe systems containing reactor coolant water shall be the water flushable type." (5) "The name of the preservative used shall be indicated to facilitate touch up." |
| **18.** | ANSI N45.2.2 Appendix (A-3) Section A.3.4.2 | There may be cases involving large or complex shaped items for which an inert or dry air purge is provided, rather than a static gas blanket, in order to provide adequate protection due to difficulty of providing a leak proof barrier. In these cases, a positive pressure purge flow may be utilized as an alternate to a leak-proof barrier. |
| **19.** | ANSI N45.2.2 Appendix (A-3) Section A.3.5.1 | Instead of the requirement for non-metallic plugs and caps to be brightly colored, non-metallic plugs and caps shall be an appropriately visible color. |
| **20.** | ANSI N45.2.2 Appendix (A-3) Section A.3.5.2 | This paragraph limits halogen and sulfur content of tape. The use of tapes containing greater amounts of halogens than those identified will be allowed after appropriate evaluation; however, the quantities shall not be such that harmful concentrations could be leached or released by breakdown of the compounds under expected environmental conditions. |

# Appendix B
# Regulatory Commitments

## E. Regulatory Guide 1.38 (continued)

| | | Clarification/Exception |
|---|---|---|
| **21.** | ANSI N45.2.2 Appendix (A-3) Section A.3.7.1 | In lieu of A.3.7.1(3) and (4), VY will comply with the following: Fiberboard boxes shall be securely closed either with a water resistant adhesive applied to the entire area of contact between the flaps, or all seams and joints shall be sealed with not less than 2-inch wide, water resistant tape. |
| **22.** | ANSI N45.2.2 Appendix (A-3) Section A.3.9 | Instead of the requirement that container markings appear on a minimum of two sides of the container, preferably on one side and one end, VY will comply with the following: Containers are adequately marked for storage, identification, and retrieval. Multiple marking requirements are imposed, where necessary. |
| **23.** | ANSI N45.2.2, Appendix (A-3) Section A.3.9 | Instead of the requirement that container markings be no less than 3/4" high, VY will comply with the following: Container markings are of a size which permits easy recognition. |
| **24.** | ANSI N45.2.2, Appendix (A-3) Section A.3.9 | Instead of the specific container marking requirements, VY will comply with the following: The information required in container marking is evaluated on a case-by-case basis. |
| **25.** | ANSI N45.2.2 Appendix (A-3) Section A.3.9 | The last paragraph of A.3.9 could be interpreted as prohibiting any direct marking on bare austenitic stainless steel and nickel alloy metal surfaces. As an alternate, paragraphs A.3.9.(1) and (2) may be used to control marking on the surface of austenitic stainless steels and nickel base alloys based on documented engineering evaluations. Contamination levels are controlled such that the material used for marking is not detrimental to the materials marked. |

# Appendix B
# Regulatory Commitments

## F. Regulatory Guide 1.39 Revision 2, dated September 1977

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.3 General | The ANSI five level zone designation system may not be utilized, but the intent of the standard will be met for the areas of housekeeping, plant and personnel safety, and fire protection. |
| **2.** | ANSI N45.2.3 Section 3.1 | This section is not applicable. |
| **3.** | ANSI N45.2.3 Section 3.2.3 | The Fire Protection Program shall be used in lieu of the general requirements in this section. |
| **4.** | ANSI N45.2.3 Section 3.3 | The first paragraph is not applicable to the operations phase. |
| **5.** | ANSI N45.2.3 Section 3.4 | This section is not applicable. |
| **6.** | ANSI N45.2.3 Section 3.5 | Subparagraph (1) is not applicable to the operations phase; (2), (3), and (4) will be implemented. |

# Appendix B
# Regulatory Commitments

## G. Regulatory Guide 1.58 Revision 1, dated September 1980

| | | Clarification/Exception |
|---|---|---|
| **1.** | General | VY may choose not to apply the requirements of this guide to those personnel who are involved in day-to-day operations, surveillance, maintenance, and certain technical and support services whose qualifications are controlled by the Technical Specifications or other QAPM commitment requirements. |
| **2.** | General | General certification of inspectors in accordance with this guide is approved by a manager responsible for quality. |
| **3.** | ANSI N45.2.6 Section 1.2 | Paragraph 4 requires that the standard be imposed on personnel other than licensee employees; the applicability of this standard to suppliers will be documented and applied, as appropriate, in procurement documents for such suppliers. |
| **4.** | ANSI N45.2.6 Section 1.2 | The requirements of this standard do not apply to personnel using later editions of ASNT contained within 10CFR50.55a approved ASME editions or addenda. |
| **5.** | ANSI N45.2.6 Section 2.3 | This section requires, in part, that any person who has not performed inspection, examination, or testing activities in his qualified area for a period of one year shall be re-evaluated. A 90-day grace period may be applied to this activity. For activities deferred in accordance with the 90-day grace period, the next performance due date will be based on their originally scheduled date. |
| **6.** | ANSI N45.2.6 Section 2.5 | This section's requirements are clarified with the stipulation that, where no special physical characteristics are required, none will be specified. The converse~~e~~ is also true: if no special physical requirements are stipulated, none are considered necessary. |
| **7.** | ANSI N45.2.6 Section 3.5 | VY reserves the right to use personnel who do not meet these experience requirements but have shown capability through training and testing or capability demonstration. |

# Appendix B
# Regulatory Commitments

## H. Regulatory Guide 1.64 Revision 2, dated June 1976

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.11 Section 5.2.4 | For the documentation of inter-disciplinary design reviews, there must be documented evidence of the acceptability of design documents, or portions thereof, prior to release (material, stress, physics, mechanical, electrical, concrete, etc.). Indication of the positive concurrence of those who determine the design acceptability relative to their respective disciplinary area of concern should be on the document or on a separate form traceable to the document. A document that indicates the reviewer's comments need not be retained. |

# Appendix B
# Regulatory Commitments

## I. Regulatory Guide 1.74, dated February 1974

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.10, Section 2 | Definitions for “Certificate of Conformance” and “Certificate of Compliance” will be exchanged based upon the guidance in ANSI N45.2.13 Section 10.2. |

# Appendix B
# Regulatory Commitments

## J. Regulatory Guide 1.88 Revision 2, dated October 1976

| | | Clarification/Exception |
|---|---|---|
| **1.** | RG 1.88 Section C | VY will meet the requirements of NFPA No. 232-1975, "Standards for the Protection of Records", as allowed by the Regulatory Guide 1.88 – 1976 or ANSI/ ASME NQA-1-1983, Supplement 17S-1 Section 4.4 in lieu of N45.2.9 Section 5.6 or the discussions in this section for Records Storage Facilities with the clarification that penetrations providing fire protection, lighting, temperature/humidity control, or communications are acceptable as long as the penetration maintains the required fire resistance.<br><br>Except that as an alternate to these requirements non-permanent records (e.g., 3 years retention records) may be stored and maintained by the originating organization in one-hour minimum fire rated file cabinets located in environmentally controlled facilities that have suitable fire protection. Suitable fire protection is provided by either an automatic sprinkler system or a combination of two or more of the following: 1) automatic fire alarms, 2) hose stations, or 3) portable extinguishers. |
| **2.** | ANSI N45.2.9 Section 1.4 | Documents are considered completed when they are "completely filled out" (i.e., when sufficient information is recorded to fulfill the record's intended purpose) and the adequacy of the document (e.g., legibility) has been accepted by the document control or records management organizations or designees. |
| **3.** | ANSI N45.2.9 Section 3.2.2 | The requirements for an index discussed in this section are considered to only require that a method of retrieving the record and controlling the identified information be established. |
| **4.** | ANSI N45.2.9 Section 5.4.2 | Instead of the requirements of this section, VY will comply with the following: Records shall not be stored loosely. They shall be secured for storage in file cabinets or on shelving in containers. Methods other than binders, folders, or envelopes (e.g., dividers or boxes) may be used to organize records for storage. This section is not applicable to special processed records controlled in accordance with Section 5.4.3 when the requirements of this section are not appropriate for the record type. |

# Appendix B
# Regulatory Commitments

## J. Regulatory Guide 1.88 (continued)

| | | Clarification/Exception |
|---|---|---|
| **5.** | ANSI N45.2.9 Section 5.4.3 | Instead of the requirements of this section, VY will comply with the following: Provisions shall be made for special processed records such as radiographs, photographs, negatives, microfilm, and magnetic media to prevent damage from excessive light, stacking, electromagnetic fields, temperature, and humidity as appropriate to the record type with appropriate consideration of packaging and storing recommendations as provided by the manufacturer of these materials. |
| **6.** | ANSI N45.2.9 Section 5.5 | Routine general office and nuclear site security systems and access controls are provided; no special security systems are required to be established for record storage areas. |
| **7.** | ANSI N45.2.9 Section 5.6 | VY will meet the requirements of NFPA No. 232 – 1975, “Standards for the Protection of Records”, as allowed by the Regulatory Guide 1.88 – 1976 or ANSI/ASME NQA-1-1983, Supplement 17S-1 Section 4.4 in lieu of this section for Records Storage Facilities with the clarification that penetrations providing fire protection, lighting, temperature/humidity control, or communications are acceptable as long as the penetration maintains the required fire resistance.<br><br>Except that as an alternate to these requirements non-permanent records (e.g., 3 years retention records) may be stored and maintained by the originating organization in one-hour minimum fire rated file cabinets located in environmentally controlled facilities that have suitable fire protection. Suitable fire protection is provided by either an automatic sprinkler system or a combination of two or more of the following: 1) automatic fire alarms, 2) hose stations, or 3) portable extinguishers. |

# Appendix B
# Regulatory Commitments

## K. Regulatory Guide 1.94 Revision 1, dated April 1976

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.5 Section 2.5.2 | The last sentence requires that all items inspected with maintenance and test equipment, which is found to be out of calibration, shall be considered unacceptable. VY will comply with QAPM Section B.9.g as an alternate. QAPM Section B.9.g requires an evaluation to determine the validity of previous measurements. |
| **2.** | ANSI N45.2.5 Section 4.5 | When using ACI-305-72 and ACI-306-66, VY may apply the following requirements:<br><br>PLACING TEMPERATURES OF CONCRETE<br><br>A. During hot weather concreting, placing temperatures of concrete will be limited to the following: 1) Concrete members less than 3 feet in least dimension will not exceed 90°F; 2) Concrete members from 3 feet to 6 feet in least dimension will not exceed 70°F; and 3) Concrete members more than 6 feet in least dimension will have placing temperature as near 50°F as can be obtained by use of ice as necessary up to 100 percent of adding mixing water; and by shading aggregate and sprinkling the coarse aggregate the day it is to be used. Care will be taken so that no unmelted ice remains in the concrete at the end of the mixing period.<br><br>B. During cold weather concreting: In heating the water and aggregate, live steam to heat the fine and coarse aggregate shall not be used. The permissible range for concrete temperature shall be as follows: 1) Sections less than 3 feet in least dimensions 55°F to 75°F; and 2) Mass concrete 3 feet or more in least dimension 45°F to 65°F. The mixing water and aggregate will be purchased as required. The materials will be free of ice, snow and frozen lumps before they enter the mixer. |
| **3.** | ANSI N45.2.5 Table B | As an alternate to daily testing grout for compressive strength, for prepackaged shelf item, non-shrink grout, the grout's compressive strength tests may be performed once on each batch of non-shrink grout received, rather than each day grout is placed. |

# Appendix B
# Regulatory Commitments

## K. Regulatory Guide 1.94 (continued)

| | | Clarification/Exception |
|---|---|---|
| **4.** | ANSI N45.2.5 Section 4.8 | For the performance of correlation tests, the requirements of this standard may be modified as discussed below:<br><br>Table B, REINFORCING STEEL: In-process testing of reinforcing steel will include the mechanical properties of yield strength, tensile strength and percent elongation on full size specimens for each bar size for each 50 tons or fraction thereof from each mill heat. Bend tests are performed during material qualification testing only, except as noted below for bar sizes #14 through #18.<br><br>Table A, "Required Qualification Tests" as applied to reinforcing steel will include bend tests as required by ASTM A615 and summarized in the following: a) For bar sizes #3 through #11, one full size specimen from largest bar size rolled from each mill heat, unless material from one heat differs by three or more designation numbers. When this occurs, one bend test shall be made from both the highest and lowest designation number of the deformed bars rolled; b) For bar sizes #14 through #18, Supplementary Requirements S1 of ASTM A615 will be applied, i.e., one fullsize specimen for each bar size for each mill heat. If supplementary requirements are not followed for mill tests, they will be applied as in-process tests.<br><br>In-process test specimens may be selected at the rebar fabrication shop, prior to start of fabrication of the rebar from the heat or fraction thereof represented by the test specimen.<br><br>Acceptance criteria for any failed test (qualifications as well as in-process) may be the same as that for tensile tests specified in Subarticle CC-2331.2 of ASME Section III, Div. 2 Code (1975). This states that if a test specimen fails to meet the specified strength requirements, two (2) additional specimens from the same heat and of the same bar size would be tested, and if either of the two additional specimens fails to meet the specified strength requirements, the material represented by the tests would be rejected for the specified use. Alternative use of rejected material under strict control may be subject to evaluation by engineering. |

# Appendix B
# Regulatory Commitments

## K. Regulatory Guide 1.94 (continued)

| | | Clarification/Exception |
|---|---|---|
| **5.** | ANSI N45.2.5 Section 4.9 | VY may interpret the terms "horizontal, vertical and diagonal bars" to apply respectively to the following types of splice positions: a. Horizontal, including 10° to horizontal; b. Vertical, including 10° to vertical; and c. 45° angle, including 10° to 80° angle. The words "splicing crew" are interpreted to refer to all project members that are actively engaged in preparing and assembling cadweld mechanical splices at the final splice location. Separate test cycles will be established for each bar size and each splice position. |
| **6.** | ANSI N45.2.5 Section 5.5 | VY will comply with inspection requirements of the applicable welding codes and any exceptions instead of this section. |

# Appendix B
# Regulatory Commitments

## L. Regulatory Guide 1.116 Revision 0-R, dated June 1976

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.8 Section 3 | Documented routine inspections and audits of the storage area may be performed instead of the requirements of this section. |

# Appendix B
# Regulatory Commitments

## M. Regulatory Guide 1.123 Revision 1, dated July 1977

| | | Clarification/Exception |
|---|---|---|
| **1.** | RG 1.123 Paragraph C.6.e | This paragraph shall be implemented as originally written in N45.2.13 (i.e., with the verb “should" instead of the verb "shall"). VY retains the ultimate responsibility for performance of purchased equipment. The appropriate engineering discipline will exercise this management/engineering prerogative with respect to the final decision on post installation test requirements. |
| **2.** | ANSI N45.2.13 Section 1.2.2 | Item c is an option which may be used to assure quality; however, any option given in 10 CFR 50 Appendix B, Criterion VII as implemented by the QAPM may also be used. |
| **3.** | ANSI N45.2.13 Section 1.3 | Instead of the definition provided for QA Program Requirements, VY will comply with the following: “Those individual requirements of the QAPM which, when invoked in total or in part, establish quality assurance program requirements for the activity being controlled. Although not specifically used in the QAPM, ANSI N45.2 may be imposed upon suppliers.” |
| **4.** | ANSI N45.2.13 Section 3.1 | The “same degree of control" is stipulated to mean "equivalent level of review and approval." The changed document may not always be reviewed by the originator; however, at least an equivalent level of management/supervision shall review and approve any changes. |
| **5.** | ANSI N45.2.13 Section 3.1 | Changes to procurement documents which are changes in quantity, estimated price, cost codes, taxes, format or editorial changes that do not affect the quality of the item or service do not require an equivalent level of review and approval as the original document. |

# Appendix B
# Regulatory Commitments

## M. Regulatory Guide 1.123 (continued)

| | | Clarification/Exception |
|---|---|---|
| **5a.** | ANSI N45.2.13 Section 3.2 | When purchasing commercial-grade (as defined in 10CFR21) calibration services from NVLAP or A2LA accredited calibration laboratories, procurement documents are not required to impose a quality assurance program consistent with ANSI N45.2-1971. In such cases, accreditation may be accepted in lieu of the Purchaser imposing a QA Program consistent with ANSI N45.2-1971, provided all the following are met:<br>• The accreditation is to ANSI/ISO/IEC 17025.<br>• The accrediting body is either NVLAP A2LA.<br>• The published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties.<br>• The purchase documents require calibration/report to include identification of the laboratory equipment/standards used.<br>• The purchase documents require reporting as-found calibration data when calibrated items are found to be out-of-tolerance. |
| **6.** | ANSI N45.2.13 Section 3.4 | The requirements of the QAPM will be implemented instead of this section. |
| **7.** | ANSI N45.2.13 Section 4.2 | Supplier evaluations may be performed any time prior to placing the purchased item in service. |
| **8.** | ANSI N45.2.13 Section 8.2 Item b | Non-conformance notices for conditions described in this section are only required to be submitted to VY when the non-conformance could adversely affect the end use of an item relative to safety, interchangeability, operability, reliability, integrity or maintainability. |

# Appendix B
# Regulatory Commitments

## M. Regulatory Guide 1.123 (continued)

| | | Clarification/Exception |
|---|---|---|
| **9.** | ANSI N45.2.13<br>Section 10.2<br>Item d | The section states that the certificate should be attested to by a person who is responsible for this QA function whose function and position are described in the Purchaser's/Supplier's QA program. As an alternate to this requirement, VY will use the following: "The person attesting to a certificate shall be an authorized and responsible employee of the supplier, and shall be identified by the supplier." |

# Appendix B
# Regulatory Commitments

## N. Regulatory Guide 1.144 Revision 1, dated September 1980

| | | Clarification/Exception |
|---|---|---|
| **1.** | RG 1.144 Section C.3.a.(2) | This section is not applicable. |
| **2.** | RG 1.144 Section C.3.b.(2) | In addition to the requirements of this section, previously evaluated and approved active suppliers for which auditing is not the selected method of source verification should be evaluated concurrent with the award of a contract. Regardless of the evaluation results, active suppliers (except those excluded under C.3.b(1)) are source verified (audit, surveillance or inspection) within two years prior to award of a contract or have source verification performed. Inactive suppliers are evaluated prior to supplying items or services. An audit shall be conducted if required to determine the acceptability of procured items or services (i.e., acceptability cannot be determined by receipt inspection or another method allowable under 10 CFR 50 Appendix B, Criterion VII). |
| **3.** | RG 1.144 Section C.3.b.(2) | This section requires that supplier audits be performed on a triennial basis. A 90-day grace period may be applied to this activity. For activities deferred in accordance with the 90-day grace period, the next performance date will be based on their originally scheduled date. |
| **4.** | RG 1.144 Section C.3.b.(2) | Instead of the annual documented evaluation of suppliers discussed in this section, an ongoing evaluation of supplier performance is conducted which takes into account, where applicable, the other considerations of this section and paragraph of the Regulatory Guide. |

# Appendix B
# Regulatory Commitments

## N. Regulatory Guide 1.144 (continued)

| | | Clarification/Exception |
|---|---|---|
| **4a.** | RG 1.144 Section C.3.b.(2) | For suppliers of commercial-grade (as defined in 10CFR21) calibration services with accreditation by NVLAP or A2LA, a documented review of the supplier's accreditation by the purchaser may be used in lieu of performing an audit, accepting an audit by another licensee, performing a commercial-grade survey, inspecting or testing following delivery, or performing in-process surveillances during performance of the service. This review shall include, at a minimum, verification of all the following:<br>• The accreditation is to ANSI/ISO/IEC 17025.<br>• The accrediting body is either NVLAP A2LA.<br>• The published scope of accreditation for the calibration laboratory covers the needed measurement parameters, ranges, and uncertainties. |
| **5.** | ANSI N45.2.12 Section 4.3.1 | Pre-audit and post-audit conferences may be fulfilled by a variety of communications, such as telephone conversation. |
| **6.** | ANSI N45.2.12 Section 4.3.1 | Pre-audit and post-audit conferences are only held when deemed necessary by quality assurance or when requested by the audited organization. |
| **7.** | ANSI N45.2.12 Section 4.3.2.2 | This subsection could be interpreted to limit auditors to the review of only objective evidence; sometimes and for some program elements, no objective evidence may be available. VY will comply with an alternate sentence which reads: "When available, objective evidence shall be examined for compliance with QAPM requirements. If subjective evidence is used (e.g., personnel interviews) then the audit report must indicate how the evidence was obtained." |

# Appendix B
# Regulatory Commitments

## N. Regulatory Guide 1.144 (continued)

| | | Clarification/Exception |
|---|---|---|
| **8.** | ANSI N45.2.12 Section 4.3.3 | Pre-audit and post-audit conferences are only held when deemed necessary by quality assurance or when requested by the audited organization. |
| **9.** | ANSI N45.2.12 Section 4.3.3 | Pre-audit and post-audit conferences may be fulfilled by a variety of communications, such as telephone conversation. |
| **10.** | ANSI N45.2.12 Section 4.4 | Instead of the last sentence of the last paragraph of the section, VY will comply with the following: The audit report shall be issued within thirty working days after the last day of the audit. The last day of an audit shall be considered to be the day of the post-audit conference. If a post-audit conference is not held because it was deemed unnecessary, the last day of the audit shall be considered to be the date the post-audit conference was deemed unnecessary as documented in the audit report. |
| **11.** | ANSI N45.2.12 Section 4.5.1 | The QAPM Section A.6 corrective action program may be used instead of these requirements as long as the appropriate time limits are applied to significant conditions adverse to quality. Also, no additional documentation is necessary if needed corrective actions are taken and verified prior to audit report issuance. |

# Appendix B
# Regulatory Commitments

## O. Regulatory Guide 1.146 Revision 0, dated August 1980

| | | Clarification/Exception |
|---|---|---|
| **1.** | ANSI N45.2.23 Section 2.3.1.3 | Holders of NRC-issued Reactor Operator/Senior Reactor Operator Licenses comply with the requirements of this section and may be awarded two credits. |
| **2.** | ANSI N45.2.23 Section 2.3.4 | Prospective lead auditors shall demonstrate their ability to effectively implement the audit process and lead an audit team. They shall have participated in at least one audit within the year preceding the individual's effective date of qualification. Upon successful demonstration of the ability to effectively lead audits, licensee management may designate a prospective lead auditor as a “lead auditor”. |
| **3.** | ANSI N45.2.23 Sections 3.2 and 5.3 | These sections require that an annual assessment be performed of each lead auditor’s qualification and that each lead auditor’s records be updated annually. A 90-day grace period may be applied to these activities. For activities deferred in accordance with the 90-day grace period, the next performance due date will be based on their originally scheduled date. |

# Appendix C

## Other General Guidance Documents

Regulatory Guide 7.10, Revision 2 (3/05), "Establishing Quality Assurance Programs for Packaging Used in the Transportation of Radioactive Material."

NUREG/CR-6407, "Classification of Transportation Packaging and Dry Fuel Storage System Components According to Important to Safety (2/96)."

# Appendix D
# Administrative Controls

## 1.0 INDEPENDENT SAFETY REVIEW

An Independent Safety Review shall be a thorough review conducted by one or more qualified Independent Safety Reviewers. Persons performing these reviews shall be knowledgeable in the subject area being reviewed. Independent Safety Reviews must be completed prior to implementation of proposed activities.

1. Independent Safety Reviewers shall be individuals without direct responsibility for the performance of these activities under review. These reviews may be from the same functionally cognizant organization as the individual or group performing the original work.

2. Independent Safety Reviewers shall have at least 5 years of professional experience and either a Bachelor's Degree in Engineering or the Physical Sciences or shall have equivalent qualifications in accordance with ANSI/ANS 3.1-1978. The manager responsible for the overall operational activities (or designee) shall document the appointment of Independent Safety Reviewers.

3. The following subjects shall be independently reviewed by a qualified Independent Safety Reviewer:

   a) Evaluations for changes to the facility as described in the Defueled Safety Analysis Report (DSAR). Changes to procedures as described in the DSAR and tests or equipment not described in the DSAR to verify that such actions do not involve a change to the Technical Specifications or will not require prior NRC approval as defined in 10CFR50.59 or 10CFR72.48, and

   b) Proposed changes to the programs required by the Technical Specifications to verify that such changes do not involve a change to the Technical Specifications or will not require prior NRC approval as defined in 10CFR50.59 or 10CFR72.48.

## 2.0 SAFETY REVIEW COMMITTEE (SRC)

The SRC is responsible for reviewing, auditing, and advising the chief nuclear officer and the VY executive on matters related to the safe storage of irradiated fuel. This review and audit function is independent of line organization responsibilities.

1. The SRC shall include a minimum of three members. Alternates may be substituted for regular members. The licensee shall designate in writing the chairman, the members, and alternates for the SRC. The chairman shall not have management responsibilities for, or report to, the line organizations responsible operation and maintenance of the facility.

2. The SRC shall collectively have experience and knowledge in the following functional areas:

   a) fuel handling and storage (including the potential for criticality),
   b) chemistry and radiochemistry,

c) engineering,
d) radiation protection and
e) quality assurance.

3. The SRC shall collectively possess the necessary expertise and experience to provide an independent review of problems in the majority of the areas described in Section 2.2.

4. If necessary, individuals with knowledge and experience in other functional areas may be utilized to provide advice to the SRC.

5. As a minimum, the SRC shall conduct two designated meetings per year.

6. A quorum shall consist of not less than a majority of the number of standing SRC members, or their duly appointed alternates. Those members representing the line organizations responsible for the operation and maintenance of the facility shall not constitute a majority of the quorum. At least one member of the quorum shall be the chairman or the chairman's designated alternate.

7. As a minimum, the SRC shall perform the following functions:

   a) Advise the chief nuclear officer and the VY executive on all matters related to safe storage of irradiated fuel.
   b) Advise the management of the audited organization and the chief nuclear officer and the VY executive of review results as they relate to safe storage of irradiated fuel.
   c) Recommend to management of the assessed organization, and its management, any corrective action to improve the safe storage of irradiated fuel.
   d) Notify the chief nuclear officer and the VY executive of any safety significant disagreement between the SRC and site management within 24 hours.

8. The SRC shall be responsible for reviewing:

   a) The evaluations for procedures, and changes thereto, completed under the provisions of 10 CFR 50.59 or 10 CFR 72.48 to verify that such actions do not require prior NRC approval or a license amendment as defined in 10 CFR 50.59 or 10 CFR 72.48. This review may be completed after implementation of the affected procedure;
   b) Changes to structures, systems or components important to the safe storage of irradiated fuel to verify that such changes do not require prior NRC approval or a license amendment as defined in 10 CFR 50.59 or 10 CFR 72.48. This review may be completed after implementation of the change;
   c) Test or experiments involving the safe storage of irradiated fuel to verify that such tests or experiments do not require prior NRC approval or a license amendment as defined in 10 CFR 50.59 or 10 CFR 72.48. This review may be completed after performance of the test or experiment;
   d) Proposed changes to the Technical Specifications or the operating license. This review may be completed after submittal;
   e) Violations of codes, regulations, orders, license requirements, or internal procedures/instructions having nuclear safety significance;
   f) Indications of unanticipated deficiencies in any aspect of design or operation of structures, systems, or components that could affect safe storage of irradiated fuel;

g) Significant accidental, unplanned, or uncontrolled radioactive releases. Including corrective action(s) to prevent recurrence;
h) Significant operating abnormalities or deviations from normal and expected performance of equipment that affect safe storage of irradiated fuel;
i) The performance of the corrective action system; and
j) Internal and external experience information related to the safe storage of irradiated fuel that may indicate areas for improving facility safety.

Reports or records of these reviews shall be forwarded to the chief nuclear officer and the VY executive within 30 days after completion of the review.

9. The SRC's responsibility shall include oversight of the Audit Program. Audits shall be performed of the activities and at the associated frequencies defined in Section C.

10. Written records of reviews and audits shall be maintained. As a minimum, these records shall include:

a) Results of the activities conducted under the provisions of QAPM;
b) Recommendations to the management of the audited organization;
c) Documentation of reviews conducted by the SRC; and
d) Determination of whether changes to procedures and programs require prior NRC approval as defined in 10 CFR 50.59 and 10 CFR 72.48.

Written records of reviews and audits shall be maintained. As a minimum, these records shall include results of the activities conducted under the provisions of Section B.15.

This appendix also provides for the future relocation of Administrative Controls from other license basis documents, such as from the Technical Specifications.

Enclosure 2

Safety Evaluation for Revision 29 of the Yankee Decommissioning Quality Assurance Program (6 Pages)

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

RECEIVED
JUL 7 1 2000
NYR 2000-045

June 20, 2000

Mr. Merrill Atkins
Regulatory Affairs Manager
Yankee Atomic Electric Company
Midstate Office Park Suite 200/210
Auburn, MA 01501

SUBJECT: YANKEE NUCLEAR POWER STATION - QUALITY ASSURANCE PROGRAM CHANGES (TAC NO. MA5032)

Dear Mr. Atkins:

By letters dated July 9, 1999, and August 31, 1999, Yankee Atomic Electric Company (YAEC) submitted a proposed revision to the quality assurance program description for the Yankee Nuclear Power Station. The change was submitted as a reduction in commitment under the provisions of 10 CFR 50.54(a)(3).

The proposed changes reflect organizational changes and program simplification based on the plant's decommissioned status and served notice of YAEC's intent to apply the Yankee Decommissioning Quality Assurance Program to Independent Spent Fuel Storage Installation activities per 10CFR 72.140(d).

The staff reviewed the proposed change, as documented in the enclosed safety evaluation, and found that the reduction in commitment will continue to satisfy the criteria of Appendix B to 10 CFR Part 50 and applicable administrative control requirements. The change is, therefore, acceptable.

If you have any further questions regarding this issue, please contact me at (301) 415-2972.

Sincerely,

Phillip M. Ray, Project Manager
Decommissioning Section
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-29

Enclosure: Safety Evaluation

cc w/encl: See next page

Yankee Nuclear Power Station

cc:

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

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

# FOR PROPOSED REVISION 29 TO THE

# YANKEE DECOMMISSIONING QUALITY ASSURANCE PROGRAM

# YANKEE ATOMIC ELECTRIC COMPANY

# YANKEE NUCLEAR POWER STATION

# DOCKET NO. 50-29

## 1.0 INTRODUCTION

By letters dated July 9, 1999 (BYR 99-041), and August 31, 1999 (BYR-99-057), Yankee Atomic Electric Company (YAEC, the licensee) submitted a proposed Revision 29 to its Yankee Decommissioning Quality Assurance Program (YDQAP) for the Yankee Nuclear Power Station (YNPS). The change was submitted as a reduction in commitment under the provisions of 10 CFR 50.54(a)(3). The proposed changes reflect organizational changes and program simplification based on the plant's decommissioned status. The licensee also notified NRC of its intent to apply the YDQAP to Independent Spent Fuel Storage Installation activities per 10 CFR 72.140(d). This evaluation reviews the change for conformance to 10 CFR Part 50, Appendix B, and administrative control requirements. The licensee is committed to ANSI N18.7-1976, "Administrative Controls and Quality Assurance Requirements for the Operational Phase of Nuclear Power Plants, " as conditionally endorsed by Regulatory Guide (RG) 1.33, "Quality Assurance Program Requirements (Operation)," Revision 2.

## 2.0 BACKGROUND

YAEC announced the decision to permanently shut down the YNPS in 1992 and stated that the facility was going to be decommissioned. Subsequently, the licensee made many changes at the facility including removal of many major components. The licensee states that there are no safety-related structures, systems, or components (SSCs) at the facility.

Additionally, in separate letters (March 17, April 23, July 21, November 2, 1999, and March 6, 2000), YAEC requested approval of changes to the YNPS Defueled Technical Specifications (TS). The changes included elimination of the positions of Manager of Operations and Plant Superintendent and assignment of the applicable responsibilities to the YAEC Decommissioning Manager. Additionally, the TS changes replaced the review and audit functions performed by the Plant Operations Review Committee (PORC) and the Nuclear Safety Audit and Review Committee (NSARC) with an Independent Reviewers program and an Independent Review and Audit Committee (IRAC), respectively. The NRC will evaluate the TS

change request separately. However, the YDQAP change was assessed for consistency with the TS change request.

## 3.0 EVALUATION

### 3.1 Basis of Evaluation

Appendix B to 10 CFR Part 50, "Quality Assurance for Nuclear Power Plants and Fuel Reprocessing Plants," establishes quality assurance (QA) requirements for the design, fabrication, construction, and testing of nuclear power plant safety-related SSCs. Appendix B criteria are used in evaluating the adequacy of QA programs used by holders of licenses. ANSI N18.7 has been endorsed by RG 1.33 as providing methods acceptable for complying with the Commission's regulations regarding overall QA program requirements.

This evaluation was performed in accordance with the guidance of NUREG-0800, the "Standard Review Plan" (SRP), which provides a well-defined, uniform basis for evaluating proposed changes to license commitments. The acceptance criteria for evaluating changes to the licensee description of how the criteria are met are provided by SRP 17.1.

### 3.2 Proposed Change

The licensee's proposed changes include organizational changes; adding references to 10 CFR Part 72; making editorial changes; limiting the scope and descriptions of activities to reflect the plant's decommissioned status; making changes to adopt recent revisions to 10 CFR 50.54; recognizing the transfer of design work, procurement, and QA and control functions to a contractor; placing greater quality control responsibilities on the organizations performing work while maintaining requirements for QA audit and overview; and changing some of the requirements for control of measuring and test equipment from the plant to vendors.

#### 3.2.1 Organization Changes

The licensee describes several organization changes. These changes included or recognized:

- References to the Nuclear Safety and Audit Committee (NSARC) are changed to the Independent Review and Audit Committee (IRAC).

- Reassignment of the duties of the Manager of Quality Assurance to the Decommissioning Manager of Quality Assurance.

- Reassignment of the duties of the Engineering Manager to the Decommissioning Manager.

- Reassignment of some of the duties of the Director of Quality Assurance to the Oversight Manager.

- Reassignment of some of the duties of the Director of Quality Assurance to the Decommissioning Quality Assurance Manager.

- Elimination of the functions and personnel that are no longer applicable in the decommissioned status. These positions include the Engineering Manager, Shift Supervisors, Licensing Manager, and others. Duties applicable to the decommissioned status were assigned to others including contractors.

The described organization changes, the reassignment of some duties, and elimination of positions and responsibilities that are not applicable to the decommissioned plant, are consistent with 10 CFR Part 50 Appendix B, and ANSI N18.7. The changes provide sufficient authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations. Therefore, the changes are acceptable.

3.2.2 Program Changes Based on the Plant's Decommissioned Status

In addition to organization and title changes described above, the licensee changed the description of the organization's responsibility and limited the responsibility to decommissioning and spent fuel storage. Additionally, the licensee reduced the scope of the SSCs to which the QA program was applicable. The licensee limited the scope to the important-to-safety components associated with spent fuel storage. The licensee stated that there were no safety-related SSCs at the facility due to the cessation of power operations. The licensee stated that the important-to-safety SSCs associated with 10 CFR Part 72 (onsite dry storage of spent fuel) would be subject to the QA program. Also, the licensee noted that the program remained applicable to radioactive waste packaging and transportation in accordance with 10 CFR Part 71.

Application of an approved Part 50 Appendix B QA program to Part 71 and Part 72 activities is authorized by those Parts and is, therefore, acceptable.

3.2.3 Editorial Changes

In conjunction with the above changes, the licensee made a number of editorial changes. Editorial changes are permitted by 10 CFR 50.54(a)(3) and do not require NRC approval. Therefore, the licensee's editorial changes are acceptable. The licensee also eliminated information that duplicates language in QA standards to which the licensee is committed. These changes are authorized by 10 CFR 50.54(a)(3)(v) and are, therefore, acceptable.

3.2.4 Changes to the Scope and Description of Activities

The licensee deleted reference to certain ANSI N45.2 series standards and a Regulatory Guide. Specifically deleted were ANSI N45.2.1-1973, "Cleaning of Fluid Systems and Associated Components During Construction Phase of Nuclear Power Plants"; ANSI N45.2.4-1972, "Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generation Plants"; ANSI N45.2.8-1975, "Supplementary Quality Assurance Requirements for Installation, Inspection and Testing of Mechanical Equipment and Systems for the Construction Phase of Nuclear Power Plants"; and Regulatory Guide 1.29, Revision 3, "Seismic Design Classification." The deleted standards are applicable to construction activities, including construction activities during plant operations. These standards are not required for decommissioning activities. Therefore, deletion of these standards from the YDQAP is acceptable.

Additionally, the licensee redefined the QA program changes that required prior NRC approval. The licensee specified that previous NRC safety evaluations could be used to make changes that reduced QA commitments under the same conditions, without first obtaining NRC approval. NRC regulation 10 CFR 50.54(a)(3) states that "the following changes are not considered to be reductions in commitment: (ii) The use of a quality assurance alternative or exception approved by an NRC safety evaluation, provided that the bases of the NRC approval are applicable to the licensee's facility"; The licensee's change is consistent with 10 CFR 50.54(a)(3)(ii) and is, therefore, acceptable.

3.2.5 Use of Vendors to Perform Quality Activities

The licensee assigned responsibility for the performance of several quality-related activities to vendors. Activities included the performance of QA, engineering, procurement, site management, and control of measuring and test equipment.

The licensee's program describes sufficient control of the quality aspects of the vendors' activities through oversight and audits under the control of the IRAC as overseen by the YAEC president and Chief Executive Officer. The essential elements of 10 CFR Part 50 Appendix B were retained. Therefore, the licensee's changes are acceptable.

## 4.0 CONCLUSIONS

The proposed changes to the licensee's QA program as described above will continue to satisfy the criteria of Appendix B to 10 CFR Part 50 and applicable administrative control requirements. The changes are, therefore, acceptable.

Principal Contributor: P. Narbut

Date: June 20, 2000

Enclosure 3

Safety Evaluation for Amendment 154 to Yankee Atomic Electric Company License No. DPR-3 (21 Pages)

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



June 20, 2000

Mr. Merrill Atkins
Regulatory Affairs Manager
Yankee Atomic Electric Company
Midstate Office Park Suite 200/210
Auburn, MA 01501

SUBJECT: YANKEE NUCLEAR POWER STATION - ISSUANCE OF AMENDMENT TO REVISE TECHNICAL SPECIFICATIONS RELATED TO THE QUALITY ASSURANCE PROGRAM (TAC NO. MA5032)

Dear Mr. Atkins:

The Commission has issued the enclosed Amendment No. 154 to the Yankee Atomic Electric Company (YAEC) Possession Only License (POL) No. DPR-3 for the Yankee Nuclear Power Station. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated March 17, 1999, as supplemented April 23, July 21, November 2, 1999, and March 6, 2000.

The amendment revises TS Section 6.0, Administrative Controls, by consolidating management positions and modifying review and audit functions.

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

Sincerely,

Phillip M. Ray, Project Manager
Decommissioning Section
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-29

Enclosures: 1. Amendment No. 154 to DPR-3
2. Safety Evaluation

cc w/encls: See next page

Yankee Nuclear Power Station

cc:

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

YANKEE ATOMIC ELECTRIC COMPANY

DOCKET NO. 50-29

YANKEE NUCLEAR POWER STATION

AMENDMENT TO POSSESSION ONLY LICENSE

Amendment No. 154
License No. DPR-3

1. The Nuclear Regulatory Commission (the Commission has found that:

   A. The application for amendment filed by Yankee Atomic Electric Company (the licensee) dated March 17, 1999, as supplemented April 23, July 21, November 2, 1999, and March 6, 2000, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will be maintained in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Possession Only License No. DPR-3 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 154, are hereby incorporated in the license. The licensee shall possess and maintain the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

R. F. Dudley, Jr. for

Michael T. Masnik, Chief
Decommissioning Section
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 20, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 154

POSSESSION ONLY LICENSE NO. DPR-3

DOCKET NO. 50-29

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

| REMOVE | INSERT |
|---|---|
| 6-1 | 6-1 |
| 6-5 through 6-12 | 6-5 through 6-10 |
| 6-13 | 6-13 |
| 6-14 | 6-14 |
| 6-19 | 6-19 |
| 6-21 | 6-21 |
| 6-22 | 6-22 |

## 6.0 ADMINISTRATIVE CONTROLS

Administrative controls are the written rules, orders, instructions, procedures, policies, practices, and the designation of authorities and responsibilities by the management to obtain assurance of safety and quality of maintenance of a nuclear facility. These controls shall be adhered to.

### 6.1 RESPONSIBILITY

6.1.1 The Decommissioning Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 In all matters relating to the operation of the plant and to these Technical Specifications, the Decommissioning Manager shall report to and be directly responsible to the Vice President of Yankee Atomic Electric Company.

### 6.2 ORGANIZATION

6.2.1 An on-site and an off-site organization shall be established for plant operation and corporate management. The on-site and off-site organization shall include the positions for activities affecting the safety of the facility.

a. Lines of authority, responsibility and communication shall be established and defined from the highest management levels through intermediate levels to and including all operating organization positions. Those relationships shall be documented and updated, as appropriate, in the form of organizational charts. These organizational charts shall be documented in the FSAR.

b. A single corporate officer shall have overall responsibility for plant nuclear safety. This individual shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining and providing technical support in the plant so that continued nuclear safety is assured.

c. There shall be an individual management position in the on-site organization having overall responsibility for safe operation of the plant; he/she shall have control over those on-site resources necessary for safe operation and maintenance of the plant.

## 6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the facility management/supervisory staff shall meet or exceed the minimum qualifications of ANSI 18.1-1971 for comparable positions, except for the Radiation Protection Manager who shall also meet the minimum qualifications of Regulatory Guide 1.8, Revision 1.

## 6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility Certified Fuel Handlers shall be conducted in accordance with an NRC approved training program. A training program for the unit staff shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971.

## 6.5 REVIEW AND AUDIT

### 6.5.1 Independent Safety Review

An Independent Safety Review shall be a thorough review conducted by one or more qualified Independent Safety Reviewers. Persons performing these reviews shall be knowledgeable in the subject area being reviewed. Independent Safety Reviews must be completed prior to implementation of proposed activities.

a. Independent Safety Reviewers shall be individuals without direct responsibility for the performance of the activities under review; these reviewers may be from the same functionally cognizant organization as the individual or group performing the original work.

b. Independent Safety Reviewers shall have at least 5 years of professional experience and either a Bachelor's Degree in Engineering or the Physical Sciences or shall have equivalent qualifications in accordance with ANSI 18.1-1971. The Decommissioning Manager (or a designee) shall document the appointment of Independent Safety Reviewers.

c. The following subjects shall be independently reviewed by a qualified Independent Safety Reviewer:

1. safety evaluations for changes in the facility as described in the Final Safety Analysis Report (FSAR), changes in procedures as described in the FSAR, and tests or experiments not described in the FSAR to verify that such actions do not involve a change to the Technical

Specifications or will not involve an unreviewed safety question as defined in 10CFR50.59;

2. proposed changes to the programs required by Technical Specification 6.7, to verify that such changes do not involve a change to the Technical Specifications and will not involve an unreviewed safety question as defined in 10CFR50.59; and

3. proposed changes to the Technical Specification Bases.

6.5.2 Independent Review and Audit Committee (IRAC)

The IRAC is responsible for reviewing, auditing, and advising the President of Yankee Atomic Electric Company (or a designee) on matters related to the safe storage of irradiated fuel. This review and audit function is independent of line organization responsibilities.

a. The IRAC shall include a minimum of five members. Alternates may be substituted for regular members. The licensee shall designate in writing the chairman, the members, and alternates for the IRAC. The chairman shall not have management responsibilities for, or report to, the line organizations responsible for operation or maintenance of the fuel storage facility.

b. The IRAC shall collectively have experience and knowledge in the following functional areas:

1. fuel handling and storage (including the potential for criticality),
2. chemistry and radiochemistry,
3. engineering,
4. radiation protection, and
5. quality assurance.

If necessary, individuals with knowledge and experience in other functional areas may be utilized to provide advice to the IRAC.

c. The IRAC shall hold at least one meeting per quarter.

d. A quorum shall consist of three regular members or their duly appointed alternates. Those members representing the line organizations responsible for the operation and maintenance of the facility shall not constitute a majority of the

quorum. At least one member of the quorum shall be the chairman or the chairman's designated alternate.

e. As a minimum, the IRAC shall perform the following functions:

1. advise the Decommissioning Manager (or a designee) on all matters related to safe storage of irradiated fuel;

2. advise the management of the audited organization and the Decommissioning Manager (or a designee) of audit results as they relate to safe storage of irradiated fuel;

3. recommend to the management of the audited organization, and its management, any corrective action to improve the safe storage of irradiated fuel; and

4. notify the President of Yankee Atomic Electric Company (or a designee) of any safety significant disagreement between the IRAC and the Decommissioning Manager within 24 hours.

f. The IRAC shall be responsible for reviewing:

1. the safety evaluations for procedures, and changes thereto, completed under the provisions of 10 CFR 50.59 to verify that such actions do not involve an unreviewed safety question as defined in 10 CFR 50.59. This review may be completed after implementation of the affected procedure;

2. changes to structures, systems, or components important to the safe storage of irradiated fuel to verify that such changes do not involve an unreviewed safety question as defined in 10 CFR 50.59. This review may be completed after implementation of the change;

3. tests or experiments involving the safe storage of irradiated fuel to verify that such tests or experiments do not involve an unreviewed safety question as defined in 10 CFR 50.59. This review may be completed after performance of the test or experiment;

4. proposed changes to the YNPS Technical Specifications or the license;

5. violations of codes, regulations, orders, license requirements, or internal procedures/instructions having nuclear safety significance;

6. indications of unanticipated deficiencies in any aspect of design or operation of structures, systems, or components that could affect safe storage of irradiated fuel;

7. significant accidental, unplanned, or uncontrolled radioactive releases, including corrective action(s) to prevent recurrence;

8. significant operating abnormalities or deviations from normal and expected performance of equipment that affect safe storage of irradiated fuel;

9. the performance of the corrective action system; and

10. internal and external experience information related to the safe storage of irradiated fuel that may indicate areas for improving facility safety.

Reports or records of these reviews shall be forwarded to the Decommissioning Manager within 30 days after completion of the review.

g. The IRAC's audit responsibilities shall encompass:

1. conformance of irradiated fuel storage to provisions contained within the YNPS Technical Specifications and applicable license conditions at least once per 12 months;

2. the training and qualifications of facility staff at least once per 12 months;

3. implementation of all programs required by YNPS Technical Specification 6.7 at least once per 24 months;

4. actions taken to correct deficiencies occurring in structures, systems, components, or methods of operation that affect safe storage of irradiated fuel at least once per 6 months;

5. facility operations, modifications, maintenance, and Surveillance related to the safe storage of irradiated fuel to verify independently that these activities are performed safely and correctly at least once per 24 months; and

6. other activities and documents as requested by the Decommissioning Manager (or a designee).

Reports of records of these audits, including any recommendations for improving the safe storage of irradiated fuel, shall be forwarded to the Decommissioning Manager (or a designee) within 30 days after completion of the audit.

6.5.3 Records

Written records of reviews and audits shall be maintained. As a minimum, these records shall include:

a. Results of the activities conducted under the provisions of Specifications 6.5.1 and 6.5.2;

b. Recommendations to the management of the audited organization;

c. An assessment of the safety significance of review or audit findings;

d. Documentation of reviews conducted under Specification 6.5.1.c; and

e. Determination of whether each item considered under Specifications 6.5.2.f.1 through 6.5.2.f.3 involves an unreviewed safety question as defined in 10CFR50.59.

Pages 6-10 through 6-12 have been deleted.

## 6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.73, and

b. Each REPORTABLE EVENT shall be reviewed by an Independent Safety Reviewer and the results of this review shall be submitted to the Independent Review and Audit Committee (IRAC) and the Decommissioning Manager.

## 6.7 PROCEDURES AND PROGRAMS

6.7.1 Written procedures shall be established, implemented, and maintained that meet or exceed the requirements and recommendations of Sections 5.2 through 5.2.9 and 5.3 of ANSI N18.7-1972 and Appendix "A" of Regulatory Guide 1.33, Revision 2, except as provided in 6.7.2 and 6.7.3 below. The written procedures shall also cover the activities relating to:

a. Fire Protection Program implementation.
b. PROCESS CONTROL PROGRAM implementation.
c. OFF-SITE DOSE CALCULATION MANUAL implementation.
d. Quality Assurance Program for effluent and environmental monitoring, using the guidance in Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975.

6.7.2 Each procedure and administrative policy of 6.7.1 above, and changes thereto, shall be reviewed by an Independent Safety Reviewer and approved by the Decommissioning Manager prior to implementation and reviewed periodically as set forth in administrative procedures.

6.7.3 Deleted.

6.7.4 Temporary changes to procedures of 6.7.1 above may be made provided:

a. The intent of the original procedure is not altered.

b. The change is approved by two members of the plant management staff, at least one of whom is a Certified Fuel Handler.

c. The change is documented and approved by the Decommissioning Manager within 14 days of implementation.

6.7.5 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation, including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;

2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR, Part 20, Appendix B, Table II, Column 2;

3) Monitoring, sampling, and analysis of radioactive liquid, and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM;

4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released

6.9.2 (continued)

f. Records of transient or operational cycles for the Reactor Pressure Vessel.

g. Records of training and qualification for current members of the plant staff.

h. Records of inservice inspections performed pursuant to Technical Specifications.

i. Records of Quality Assurance activities required by the QA manual.

j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

k. Records of Independent Safety Reviews and the IRAC meetings, and Records of the Plant Operational Review Committee (PORC) and the Nuclear Safety Audit and Review Committee (NSARC), the review and audit functions which preceded the Independent Safety Review function and IRAC.

l. Records for Environmental Qualification.

m. Records of analysis required by the Radiological Environmental Monitoring Program.

n. Records of the service lives of all snubbers, including the date at which the service life commences and associated installation and maintenance records.

o. Records of reviews performed for changes made to the OFF-SITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.

## 6.10 RADIATION PROTECTION PROGRAM

6.10.1 Procedures for personnel radiation protection shall be prepared consistent with requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposures.

## 6.12 PROCESS CONTROL PROGRAM (PCP)

6.12.1 Changes to the PCP:

a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.9.2.o. This documentation shall contain:

1) Sufficient information to support the change together with the appropriate analyses or evaluation justifying the change(s), and

2) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of federal, state, or other applicable regulations.

b. Shall become effective after review and acceptance by an Independent Safety Reviewer and the approval of the Decommissioning Manager.

## 6.13 OFF-SITE DOSE CALCULATION MANUAL (ODCM)

6.13.1 Changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.9.2.o. This documentation shall contain:

1) Sufficient information to support the change together with the appropriate analyses or evaluation justifying the change(s), and

2) A determination that the change will maintain the level of the radioactive effluent control required by 10 CFR 20.106, 40 CFR 190, 10 CFR 50.36a, and Appendix I to 10 CFR 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

b. Shall become effective after review and acceptance by an Independent Safety Reviewer and the approval of the Decommissioning Manager.

c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 154 TO POSSESSION ONLY LICENSE NO. DPR-3

YANKEE ATOMIC ELECTRIC COMPANY

YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-29

## 1.0 INTRODUCTION

By letter dated March 17, 1999, as supplemented by letters dated April 23, 1999, July 21, 1999, November 2, 1999, and March 6, 2000, Yankee Atomic Electric Company (YAEC, the licensee) submitted a request for a license amendment to revise the administrative controls (Section 6) of the Yankee Nuclear Power Station Technical Specifications (TS). The revision eliminates the positions of Manager of Operations and Plant Superintendent and assigns their responsibilities to the Decommissioning Manager. Additionally, the revision eliminates the Plant Operations Review Committee (PORC) and the Nuclear Safety Audit Review Committee (NSARC) and replaces them with an Independent Safety Reviewer and an Independent Review and Audit Committee (IRAC).

The April 23, July 21, and November 2, 1999, and March 6, 2000, letters provided additional clarifying information and updated TS pages. This information was within the scope of the original application and *Federal Register* notice and did not change the staff's initial proposed no significant hazards consideration determination.

## 2.0 EVALUATION

### 2.1 General

There are no accidents or other events in the Final Safety Analysis Report, as updated on June 28, 1999, that would result in an immediate threat to the public or the plant staff, or result in offsite doses in excess of the Environmental Protection Agency Protective Action Guides.

### 2.2 Review and Audit

The licensee proposed that TS Section 6.5 be revised to:

1. Eliminate the positions of Manager of Operations and Plant Superintendent and assign their responsibilities to the Decommissioning Manager.

2. Eliminate the Plant Operations Review Committee (PORC) and the Nuclear Safety Audit Review Committee (NSARC) and replace them with an Independent Safety Reviewer and an Independent Review and Audit Committee (IRAC).

Additionally, the licensee stated that other sections of the TS would be revised editorially to be in accordance with the changes made to Section 6.5. These editorial changes included Sections 6.1, 6.2, 6.6, 6.7, 6.9, 6.12, and 6.13.

Section 13.4, "Operational Review," of NUREG-0800, the "Standard Review Plan" (SRP), provides the acceptance criteria used by the staff to evaluate TS provisions related to the plant staff review of operational activities performed by licensee organizational units fulfilling the review and audit function. This acceptance criterion is based on meeting the relevant requirements of 10 CFR 50.40(b) as it relates to the licensee being technically qualified to engage in licensed activities, and of Appendix B to 10 CFR Part 50 as it relates to the review and audit functions required by the licensee's quality assurance program. Therefore, TS provisions associated with the review and audit function satisfies the criteria in both Section 50.36(c)(6), and Appendix B to 10 CFR Part 50.

The licensee stated that, due to the permanent cessation of power operation and the advanced state of decommissioning, it proposed eliminating the positions of Manager of Operations and Plant Superintendent and assigning the responsibilities to the Decommissioning Manager. The licensee stated that the proposed change would not eliminate any of the duties and responsibilities of the Manager of Operations and Plant Superintendent. The licensee noted that the Decommissioning Manager was the current acting Manager of Operations.

The licensee also proposed to replace the functions of the onsite committee, the PORC, with an Independent Safety Review performed by independent safety reviewers. The licensee's proposal included definition of the qualifications and responsibilities of the independent safety reviewers. Additionally, the licensee proposed to replace the functions of the offsite committee, the NSARC, with an IRAC. The licensee stated the changes were justified based on the reduced scope and complexity of operations at the station and the reduced staff. The licensee stated these reductions made the continued operation of PORC and NSARC impracticable and unnecessary. The licensee also stated that the responsibilities of the new review organizations would encompass the majority of the functions currently performed by the PORC and NSARC and be consistent with the scope of activities at a permanently defueled facility in an advanced stage of decommissioning.

In answer to NRC questions asked in telephone calls on June 21, 1999, and September 29, 1999, the licensee provided additional information and clarifications in letters dated July 21, 1999 (BYR 99-051), November 2, 1999 (BYR 99-072), and March 6, 2000 (BYR 2000-015).

Regarding independence, the licensee clarification stated that YAEC would ensure sufficient independence of the independent reviewers through explicit administrative controls and that the controls would be comparable to the controls in place for PORC and NSARC. The licensee stated that the Decommissioning Manager would be responsible for the assignment of personnel to perform the independent review function. Further, the licensee stated that the Decommissioning Manager would report to the Vice President of YAEC.

Regarding audits, the licensee clarification stated that YAEC was committed to ANSI 18.7 (1976) which included all 18 criteria of 10 CFR Part 50, Appendix B. The licensee also clarified that, although it appeared to have eliminated the requirement for audits of the Emergency Plan and

the Security Plan, it fully intended to perform audits of the Emergency Plan, the Security Plan, and the Security Training and Qualification Plan. The licensee noted that 10 CFR 50.54(p)(3), Appendix C to Part 73, and 10 CFR 50.54(t) require a review and audit of these programs at least every 12 months. Therefore, the licensee stated that maintaining a separate requirement for these audits in the TS was redundant and unnecessary.

Regarding responsibilities of IRAC, the licensee clarification stated that IRAC is responsible for advising both the Decommissioning Manager (a contractor) and the President of YAEC, or designee.

Regarding the IRAC's five expert disciplines versus ten disciplines in ANSI 18.7, the licensee stated that the five disciplines were all that was needed for foreseeable work. The licensee further stated that other expert disciplines would be made available to IRAC if some future need arose. The licensee added a clarification to TS 6.5.2.b. which stated that other individuals with knowledge and experience in other functional areas would be used to provide advice to the IRAC if necessary.

Regarding the standards for determining the equivalent experience for a Bachelor of Science Degree, the licensee clarification stated that ANSI 18.1- 1981 would be used.

## 2.3 Conclusion

Based on the advanced stage of decommissioning of Yankee Nuclear Power Station, reductions in the review and audit commitments can be accomplished consistent with the requirements of Appendix B to 10 CFR Part 50. The licensee has proposed appropriate controls to ensure the qualification and independence of the IRAC. The assigned review responsibilities are consistent with the advanced stage of facility decommissioning. The staff concludes that the modified organization, including the revised review and audit functions, provides reasonable assurance of compliance with the requirements of Appendix B to 10 CFR Part 50 for activities performed under the Yankee Decommissioning Quality Assurance Program. Therefore, the proposed amendment is acceptable.

## 3.0 STATE CONSULTATION

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

## 4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes recordkeeping, reporting, and administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

## 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Paul Narbut

Date: June 20, 2000