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CNRO-2012-00009
ENOC-12-00034

November 20, 2012

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

SUBJECT: Responses to Request for Additional Information Regarding Changes to the Entergy Quality Assurance Program Manual (QAPM) and Associated Plant Technical Specifications Regarding Staff Qualifications

River Bend Station
Docket Nos. 50-458 and 72-49

Grand Gulf Nuclear Station
Docket Nos. 50-416 and 72-50

Arkansas Nuclear One
Units 1 and 2
Docket Nos. 50-313, 50-368, and
72-13

Indian Point Nuclear Generating
Units 1, 2, and 3
Docket Nos. 50-003, 50-247,
50-286, and 72-51

Pilgrim Nuclear Power Station
Docket No. 50-293

Waterford 3 Steam Electric Station
Docket No. 50-382 and 72-75

James A. FitzPatrick Nuclear Power
Plant
Docket Nos. 50-333 and 72-12

Palisades Nuclear Plant
Docket Nos. 50-255 and 72-7

Vermont Yankee Nuclear Power
Station
Docket Nos. 50-271 and 72-59

Big Rock Point Nuclear Plant - ISFSI
Docket Nos. 50-155 and 72-43

- REFERENCES:
1. Entergy Operations, Inc. letter to the NRC, *Request for Approval of Changes to the Entergy Quality Assurance Program Manual (QAPM) and Associated Plant Technical Specifications Regarding Staff Qualifications*, December 13, 2011 (ADAMS Accession No. ML11356A278)
 2. NRC e-mail to Entergy Operations, Inc., (ADAMS Accession No. ML12278A386), October 4, 2012

Dear Sir or Madam:

In Reference 1, Entergy Operations, Inc. (Entergy) proposed changes to the Entergy Quality Assurance Program Manual (QAPM) and plant Technical Specifications (TS) regarding unit staff qualifications. The proposed changes would standardize qualification requirements for the Entergy fleet. In Reference 2, the NRC staff requested additional information to support

Q004
NM5526
FSME NRR NM59

their review and approval of Reference 1. Responses to the staff's requests for additional information (RAIs) are provided in Attachment 1.

Attachment 2 provides a table summarizing the current and proposed commitments for each plant as requested by RAI 2 of Reference 2.

Attachment 3 provides editorial corrections to INSERTs 1 and 2 for the proposed QAPM changes and to the Pilgrim Nuclear Power Station TS markup, both of which were provided in Reference 1.

Attachment 4 provides additional pages for the Big Rock Point TS that were inadvertently omitted from Reference 1.

Attachment 5 provides clean retyped pages of the proposed changes to the Entergy QAPM and each plant's TS as requested in RAI 3 of Reference 2. The retyped pages include corrections provided in Attachments 3 and 4.

These changes do not affect the no significant hazards consideration included in Reference 1.

This letter contains no new commitments.

If you have any questions or require additional information, please contact Bryan Ford at 601-368-5516.

I declare under penalty of perjury that the foregoing is true and correct; executed on November 20, 2012.

Sincerely,



JFM/BSF/rwb

- Attachments:
1. Response to Requests for Additional Information Regarding Changes to the Entergy QAPM and Associated Plant Technical Specifications Regarding Staff Qualifications
 2. Summary of Current and Proposed Commitments
 3. Editorial Corrections and Changes
 4. Big Rock Point Technical Specification Page Markup
 5. Clean Pages of the QAPM and Each Plant's Technical Specifications

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ATTACHMENT 1

CNRO-2012-00009 / ENOC 12-00034

**RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION REGARDING
CHANGES TO THE ENERGY QAPM AND ASSOCIATED PLANT
TECHNICAL SPECIFICATIONS REGARDING STAFF QUALIFICATIONS**

**RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION REGARDING
CHANGES TO THE ENTERGY QAPM AND ASSOCIATED PLANT
TECHNICAL SPECIFICATIONS REGARDING STAFF QUALIFICATIONS**

RAI 1

In Enclosure 1 on page 7 of 12, the licensee makes the following statement:

*“The QAPM states *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.*”*

If there is no documentation that justifies how these individuals are qualified for their positions, explain how auditors or inspectors will know that these individuals are in compliance with licensee commitments. For example, if the commitment in the QAPM requires a four-year degree and the individual has extensive experience but no degree, how would one know that this person has been “grandfathered”?

Response

Entergy procedure EN-HR-137, “Complying with the Standards for Selecting Nuclear Power Plant Personnel,” provides instructions for managers and supervisors to verify and document that an individual satisfies the qualification requirements of applicable ANSI/ANS standards and applicable Regulatory Guides (RGs) as modified by the Quality Assurance Program Manual (QAPM) prior to employing the individual in a position. Individuals qualified under the current standards to which Entergy is committed are to remain qualified as specified in their current qualification records. While we believe that incumbents will also meet the new requirements, additional verification and documentation would create an administrative burden that is unnecessary since the current qualification requirements are acceptable.

Implementation of the NRC-approved changes to the Technical Specifications (TS) and QAPM will require changes to EN-HR-137 to ensure that replacements of incumbents meet the new requirements prior to employment in the position. Auditors and inspectors can verify the date that an individual was placed into the position and determine whether the individual’s qualifications met the applicable requirements at the time of placement.

RAI 2

Because the text description of the proposed changes that was provided by the licensee is so complex and difficult to follow, the staff requests that a Table or Tables be provided that shows each plant on the Y-axis and the current commitments and proposed commitments on the X-axis. For example:

| Plant Name | Current Commitments | | | Proposed Commitments | | |
|--------------------|---------------------|--------------------|----------------------------------|--------------------------------|--------------|----------------------------------|
| | ANS/ANSI | RG 1.8 | TS | ANS/ANSI | RG 1.8 | TS |
| ANO-1, Units 1 & 2 | | | | | | |
| General Population | ANS/ANSI 3.1-1978 | ? | ? | ANS/ANSI 3.1-1978 | ? | Exceptions in QAPM, not TS |
| QA Manager | ? | ? | ? | Exception to ANS/ANSI 3.1-1978 | ? | This position will not be in TS |
| Rad. Pro. Mgr | ? | Rev. 1, Sept. 1975 | ? | N/A | Rev 2, 1987 | ? |
| STA | ? | ? | Ref. Commission policy statement | ANS/ANSI 3.1-1993 | Rev. 3, 2000 | ISTS wording plus Modes |
| Ops Manager | ? | ? | ...or Assistant are SRO licensed | N/A | N/A | ...or Assistant are SRO licensed |

Response

A table of current and proposed commitments for each plant is provided as Attachment 2.

RAI 3

It is not clear what is being changed in the TS markups. The staff is not sure whether the rev bars are part of the markup or whether the rev bars are from a previous revision. Therefore, the staff requests that the proposed TS be provided in a clean, typed format.

Response

The affected TS pages are provided in a clean, retyped format in Attachment 5.

RAI 4

Entergy's proposed revision to the QAPM adds Insert 4 to specifically address training commitments as follows:

Insert 4:

- | | |
|---------------------------|--|
| 5. ANSI/ANS 3.1 Section 5 | Entergy 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 ANS/ANS 3.1-1978. |
|---------------------------|--|

Entergy stated that the commitment to the accredited program is an enhancement to the current standard of ANSI/ANS 3.1-1978, as the NNAB accreditation is more rigorous.

The accreditation alternative to the ANSI requirements is consistent with the NRC's previous positions on the adequacy of operator training programs accredited by the NNAB. Entergy stated that commitment to the accredited program is an enhancement to the current standard of ANSI/ANS 3.1-1978. Entergy states in Insert 4 it will meet the more rigorous elements of the National Nuclear Accrediting Board (NNAB) or the less rigorous Section 5 of ANS/ANS 3.1-1978.

Provide clarification on how Entergy will implement Insert 4 to enhance the ANS/ANS 3.1-1978 standard and not circumvent the more restrictive NNAB requirements.

Response

The nuclear industry has committed to achieving NNAB accreditation for the categories of nuclear power plant personnel listed in 10 CFR 50.120 and 10 CFR 55. These include:

1. Licenses Operators
2. Non-licensed operators
3. Shift supervisors
4. Shift technical advisors
5. Instrument and control technicians
6. Electrical maintenance personnel
7. Mechanical maintenance personnel
8. Radiological protection technicians
9. Chemistry technicians
10. Engineering support personnel

The accreditation requirements for the above training programs are not being changed. Item b) of INSERT 4 in the proposed QAPM change applies only to the other ANS/ANS 3.1-1978 required training programs that are not subject to an accreditation program.

RAI 5

Entergy's proposed Insert 1 to the QAPM states:

- a. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, 1987.

Entergy is currently committed to ANSI/ANS 3.1-1978. Section 4.4.4 of this standard states the following: "At the time of initial core loading or appointment to active position, the responsible person shall have a minimum of five years experience in radiation protection at a nuclear reactor facility. A minimum of two years of this five years experience should be related technical training. A maximum of four years of the five years experience may be fulfilled by related technical or academic training."

ANSI/ANS 3.1-1987, endorsed by Regulatory Guide 1.8, Revision 2, states:

4.3.3 Radiation Protection. The individual responsible for management of the radiological protection program.

Education: Baccalaureate in science, health physics, or engineering.

Minimum experience for the position:

| | |
|---------------------------|----------|
| Related experience | 4 Yr |
| which shall include | |
| Nuclear Power Plant | 3 Yr |
| Supervisory or Management | 1 yr |
| On-site | 0.50 yr. |

Special Requirements:

- (1) Management and supervisory skills in accordance with those specified in 6.3.
- (2) During the years of nuclear power plant experience, the individual shall have participated in supervision or management activities at an operating nuclear power plant during the following periods:
 - (a) 1 month of routine refueling outage, and
 - (b) 2 months of operation above 20% power.

ANSI/ANS 3.1-1987, Section 6.3, "Initial Training," states:

An initial training program shall be established to develop or enhance the skills, knowledge and ability of personnel to perform job assignments. These personnel shall not make decisions or take actions affecting plant safety until they meet the performance

requirements of the job position assigned. However, they may independently perform specific tasks or job assignments for which they are qualified.

Provide clarification on the reduction in the minimum years experience required for the radiation protection manager at the Entergy facilities. Also, provide clarification if Entergy intends to meet the above Special Requirements in ANSI/ANS 3.1-1987.

Response

Entergy is proposing to change the commitment for radiation protection manager qualifications from ANSI/ANS 3.1-1978 to RG 1.8, Revision 2, which endorses ANSI/ANS 3.1-1981 (the "1987" revision quoted in RAI 5 appears to be in error). The NRC endorsed the ANSI/ANS 3.1-1981 standard for radiation protection manager qualifications with the following clarification (regulatory position C.1.k of RG 1.8, Revision 2):

"The radiation protection manager should have the qualifications described in Section 4.4.4 of ANSI/ANS-3.1-1981 with the clarification that 3 of the 4 years of experience in applied radiation protection should be professional-level experience."

Although there is a reduction in the total minimum of years of experience (from 5 years to 4 years), this reduction is offset by more specific requirements on the type of experience. The 4-years' experience must include three years of radiation protection professional-level experience. The individual must also have participated in the radiation protection section of an operating nuclear power plant during a routine refueling outage (one to two months) and two months above 20% power. The individual must also have six months of on-site experience. These standards (ANSI/ANS 3.1-1981 as clarified by position C.1.k of RG 1.8, Revision 2) will be implemented following NRC approval of the proposed changes.

As discussed in the response to RAI 1 above, the incumbents currently qualified as radiation protection managers will remain qualified. Verification and documentation that incumbents meet the revised qualifications is not necessary since the current qualifications standards are acceptable. New radiation protection managers employed in the position following implementation of the NRC-approved changes will be required to meet the ANSI/ANS 3.1-1981 qualification standards as clarified by RG 1.8 Revision 2.

RAI 6

Entergy proposes adding the following Inserts to Entergy's QAPM:

Insert 2:

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.

Insert 3:

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 factor are evaluated on a case-by-case basis and approved and documented by senior management.

Insert 4:

4. ANSI/ANS 3.1 Section 5 Entergy 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.

Provide clarification on what revision of ANSI/ANS 3.1 Entergy is using for the above Inserts. Also, provide clarification if Insert 2 is citing the correct section of the ANSI-3.1 standard that Entergy is using.

Response

- a) INSERT 2 is a clarification to Section 4.4 of ANSI/ANS 3.1-1978. The clarification is proposed in response to violations issued to Entergy plants where individuals were assigned responsibilities of the group leader for quality assurance without having the full authority to accomplish the functional responsibilities. The proposed addition clarifies that regardless of title, any person fulfilling an ANSI/ANS 3.1-1978 specified position must have the authority to accomplish the functional responsibilities of the position. This wording is not specifically contained in the standard but is consistent with the intent of the standard.

The cited reference to "Section 4" should read "Section 4.4" as it applies to the professional-technical group leaders, including the leader responsible for quality assurance. A revised markup is included in Attachment 3.

- b) INSERT 3 is an exception to Section 4.4.5 of ANSI/ANS 3.1-1978 regarding the qualifications of the leader responsible for quality assurance. This new exception is provided as an allowance in Chapter 17.5 of the Standard Review Plan (SRP), NUREG-0800.

The SRP provided this allowance for the individual responsible for implementation of the QA plan as follows:

“Individuals who do not possess these formal education and minimum experience requirements 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.”

The proposed change takes exception to Section 4.4.5 of ANSI/ANS 3.1-1978 by applying the alternative allowance provided in the SRP for the individual responsible for quality assurance. Refer to the response to RAI 7 for additional information.

- c) INSERT 4 is an exception to Section 5 of ANSI/ANS 3.1-1978 to recognize that NNAB accredited training programs are acceptable in place of the Section 5 standards. No approved revision of the standard (the latest revision of the standard endorsed by RG 1.8 is the 1993 revision) recognizes NNAB accreditation as an acceptable alternative. See the response to RAI 4 for additional information.

RAI 7

Entergy proposes adding the following insert to the QAPM: Insert 3:

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 factor are evaluated on a case-by-case basis and approved and documented by senior management.

The NRC believes Insert 3 is a partial statement from RG 1.8, Revision 3, which states:

2.1.1 Section 4.3.7, Quality Assurance Individuals who do not possess the formal educational and experience requirements specified in this section for this position will not be eliminated automatically when other factors provide sufficient demonstration of their abilities. These other factors are to be evaluated on a case-by-case basis and approved and documented by the plant manager. However, the individual assigned to this position is to meet the Special Requirements in Section 4.3.7.

ANSI/ANS 3.1-1993, section 4.3.7 states in part:

Special Requirements:

1. Management and supervisory skills in accordance with those specified in 6.3.
2. Shall have 1 year of experience performing quality verification activities.

Also, ANSI/ANS 3.1-1993, section 6.3 states:

Managers (see 4.2) and Middle Managers (see 4.3) should have had training or experience in supervision or management. Training for supervisors (see 4.4) should develop their skills in the following:

1. Leadership
2. Interpersonal communication
3. Management responsibilities and limits
4. Motivation of personnel
5. Problem analysis and decision making
6. Administrative policies and procedures

Provide clarification if Entergy intends to meet the above Special Requirements in ANSI 3.1-1993 when implementing the proposed Insert 3. Also, provide clarification on the reduction in the minimum years experience required at the Entergy facilities.

Response

In response to RAI 1.0.2 of the first RAI set from the NRC (Reference 2), Entergy stated that later versions of industry standards, for example ANSI/ANS 3.1-1993, may be considered for the qualification evaluation. Management and supervisory skills and level of experience in implementation of the quality assurance program or in performing quality verification activities would certainly factor into a decision as to whether to allow a reduction in the experience standard.

Although Entergy is not committed to the 1993 revision of the standard, the QAPM wording will be revised to ensure that the Special Requirements of Section 4.3 ANSI/ANS 3.1-1993 are met if the manager responsible for Quality Assurance does not meet the requirements of Section 4.4.5 of ANSI/ANS 3.1-1978. This includes the requirement that the individual have one year of experience in performing quality verification activities (e.g., ensuring required quality requirements are met). The revised exception is proposed as follows:

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.

This change has been incorporated into Attachments 3 and 5.

REFERENCES

1. Entergy Operations, Inc. letter to the NRC, *Request for Approval of Changes to the Entergy Quality Assurance Program Manual (QAPM) and Associated Plant Technical Specifications Regarding Staff Qualifications*, December 13, 2011 (ADAMS Accession No. ML11356A278)
2. Entergy Operations, Inc. letter to the NRC, *Request for Additional Information Regarding Changes to the Entergy Quality Assurance Program (QAPM) and Associated Plant Technical Specifications Regarding Staff Qualifications*, May 21, 2012 (ADAMS Accession No. ML12145A195)
3. NRC e-mail to Entergy Operations, Inc., *Request for Additional Information on Requested Licensing Action Re: License Amendment Request for Approval of Changes to the Entergy Quality Assurance Program Manual (QAPM) and Associated Plant Technical Specifications Regarding Staff Qualifications (TAC Nos. ME7774, ME7775, ME7776, ME7777, ME7778, ME7779, ME7780, ME7781, ME7782, ME7783, ME7784, ME7785, AND ME7786)*, October 4, 2012 (ADAMS Accession No. ML12278A386)

ATTACHMENT 2

CNRO-2012-00009 / ENOC 12-00034

SUMMARY OF CURRENT AND PROPOSED COMMITMENTS

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

ANO-1, UNITS 1&2

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|-------------------|-------------------|---|--|---------------------|--|
| GENERAL POPULATION | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1978) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording plus MODES | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

BIG ROCK POINT

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|---|-------------------|---|----------------------------------|---------------------|---|
| GENERAL POPULATION | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | ANSI N18.1-1971 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Position not in TS (included in reference to ANSI/ANS 3.1-1971) | ANSI/ANS 3.1-1978 with exception | None | Position not in TS (included in reference to ANSI/ANS 3.1-1978) |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | NA | NA | NA | NA | NA | NA |
| OPS MANAGER | NA | NA | NA | NA | NA | NA |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|---|--------------------|---|--|---------------------|--|
| <u>FITZPATRICK</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | ANSI N18.1-1971 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1971) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev. 1-1975 | RG 1.8, Rev. 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording plus MODES | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

| | CURRENT COMMITMENTS | | | PROPOSED COMMITMENTS | | |
|--------------------|---------------------|-------------------|---|--|---------------------|---|
| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
| <u>GRAND GULF</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1978) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | ANSI/ANS 3.1-1981 | RG 1.8 Rev 2-1987 | ANSI/ANS 3.1-1981 as endorsed by RG 1.8 Rev 2 - 1987 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | ANSI/ANS 3.1-1981 | RG 1.8 Rev 2-1987 | ITS words plus ANSI/ANS 3.1-1981 as endorsed by RG 1.8 Rev 2 - 1987 | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement, ANSI/ANS 3.1-1981, and RG 1.8-Rev 2 with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 | None | Ops manager or at least one middle manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or at least one middle manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

INDIAN POINT 1

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|-------------------|-------------------|--|----------------------------------|---------------------|--|
| GENERAL POPULATION | ANSI/ANS 3.1-1978 | None | TS references IP2 TS for organization requirements | ANSI/ANS 3.1-1978 | None | TS references IP2 TS for organization requirements |
| QA MANAGER | ANSI/ANS 3.1-1978 | None | TS references IP2 TS for organization requirements | ANSI/ANS 3.1-1978 with exception | None | TS references IP2 TS for organization requirements |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | TS references IP2 TS for organization requirements | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | TS references IP2 TS for organization requirements |
| STA OPS MANAGER | NA | NA | NA | NA | NA | NA |
| | NA | NA | NA | NA | NA | NA |

| PLANT NAME | CURRENT COMMITMENTS | | | PROPOSED COMMITMENTS | | |
|-------------------------------|---------------------|-------------------|---|--|---------------------|--|
| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
| <u>INDIAN POINT 2 & 3</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1978) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording plus MODES | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

| PLANT NAME | CURRENT COMMITMENTS | | | PROPOSED COMMITMENTS | | |
|--------------------|---|-------------------|---|--|---------------------|--|
| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
| <u>PALISADES</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | ANSI N18.1-1971 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1971) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

PILGRIM

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|---|-------------------|---|--|-------------------|--|
| GENERAL POPULATION | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | ANSI N18.1-1971 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1971) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2-1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--------------------|-------------------|-------------------|---|--|---------------------|--|
| <u>RIVER BEND</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1978) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | ITS wording | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 | None | Ops manager or at least one middle manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or at least one middle manager shall hold SRO license |

PLANT NAME

CURRENT COMMITMENTS

PROPOSED COMMITMENTS

WATERFORD 3

GENERAL
 POPULATION

QA MANAGER

RP MANAGER

STA

OPS MANAGER

| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
|--|---|-------------------|--|--|---------------------|--|
| | | | | | | |
| | ANSI/ANS 3.1-1978 with exceptions specified in TS | None | ANSI/ANS 3.1-1978 except HPs, Chem, RW personnel shall meet ANS N18.1-1971. QA and others who perform inspection, examination, and testing shall meet RG 1.58, Rev. 1. | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| | ANSI/ANS 3.1-1978 | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1978) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| | None | None | Non-standard wording equivalent to Commission Policy Statement | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. Replace commission policy statement with ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| | ANSI/ANS 3.1-1978 | None | Ops Manager or the Assistant Ops Manager (Shift) shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops Manager or the Assistant Ops Manager (Shift) shall hold SRO license |

| PLANT NAME | CURRENT COMMITMENTS | | | PROPOSED COMMITMENTS | | |
|-----------------------|---|-------------------|---|--|---------------------|---|
| | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> | <u>ANS/ANSI</u> | <u>RG 1.8</u> | <u>TS</u> |
| <u>VERMONT YANKEE</u> | | | | | | |
| GENERAL POPULATION | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | ANSI N18.1-1971 | ANSI/ANS 3.1-1978 | None | ANSI/ANS 3.1-1978 |
| QA MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Position not specified in TS (included in reference to ANSI/ANS 3.1-1971) | ANSI/ANS 3.1-1978 with exception | None | ANSI/ANS 3.1-1978 with exception |
| RP MANAGER | None | RG 1.8 Rev 1-1975 | RG 1.8 Rev 1-1975 | ANS/ANSI-3.1-1981 | RG 1.8 Rev 2 - 1987 | Exception to ANSI/ANS 3.1-1978 specified in QAPM |
| STA | None | None | Non-standard wording requiring degree or equivalent and specific training. Includes MODES | ANS/ANSI-3.1-1993 | RG 1.8 Rev 3-2000 | ISTS wording plus MODES. ANSI/ANS 3.1-1993 as endorsed by RG 1.8 Rev 3-2000 |
| OPS MANAGER | ANSI/ANS 3.1-1978 (QAPM) and ANSI N18.1-1971 (TS) | None | Ops manager or assistant ops manager shall hold SRO license | ANSI/ANS 3.1-1978, except managers required to hold an SRO license are specified in TS | None | Ops manager or assistant ops manager shall hold SRO license |

ATTACHMENT 3

CNRO-2012-00009 / ENOC 12-00034

EDITORIAL CORRECTIONS AND CHANGES

EDITORIAL CORRECTIONS AND CHANGES

This attachment provides corrections to editorial errors contained in the QAPM inserts and in the Pilgrim Nuclear Power Station TS mark-up, which were provided in Entergy's original LAR (Reference 1). Additionally, wording is being added to the QAPM regarding the exception for the manager responsible for QA as discussed in response to RAI 7.

The following replacement pages are provided:

1. Page 2 of Attachment 1 – Enclosure 1: The first sentence of INSERT 1 is changed to read, "Entergy is committed to Sections 1 – 4 of ANSI/ANS 3.1-1978 with the following clarifications and exceptions."
2. Page 2 of Attachment 1 – Enclosure 1: INSERT 2 for the Entergy QAPM was erroneously typed "Section 4" but should read "Section 4.4". See response to RAI 6.
3. Page 18 of Attachment 1 - Enclosure 2: The Pilgrim Technical Specifications page was erroneously marked "INSERT C" but should have been marked "INSERT F".

Inserts for QAPM Page Markups

INSERT 1:

Entergy is committed to Sections 1 – 4 of ANSI/ANS 3.1-1978 with the following clarifications and exceptions.

Qualification requirements for personnel shall meet ANSI/ANS 3.1-1978 except the following:

- a. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, 1987.
- b. Managers required to hold an SRO license are specified in the applicable unit's Technical Specifications.
- c. Licensed Operators shall be qualified in accordance with the requirements of 10 CFR 55.

INSERT 2:

- | | |
|-----------------------------|--|
| 3. ANSI/ANS 3.1 Section 4.4 | Individuals assigned to professional-technical comparable positions shall have the authority and specified qualifications to accomplish the functional responsibilities of the position. |
|-----------------------------|--|

INSERT 3:

- | | |
|-------------------------------|---|
| 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. |
|-------------------------------|---|

Corrected INSERT for Pilgrim Technical Specifications

Organization
5.2

5.2 Organization

5.2.2 Unit Staff (continued)

- b. At least one licensed Reactor Operator (RO) shall be present in the control room when fuel is in the reactor. In addition, while the unit is in an operational mode other than Cold Shutdown or Refueling, at least one licensed Senior Reactor Operator (SAO) shall be present in the control room.
- c. At least two licensed ROs shall be present in the control room during reactor startup, scheduled reactor shutdown and during recovery from reactor trips.
- d. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(1) and 5.2.2.a and 5.2.2.1 for a period of time not to exceed 2 hours. In order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
- e. Higher grade licensed operators may take the place of lower grade licensed or unlicensed personnel.
- f. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
- g. Deleted
- h. The operations manager or assistant operations manager shall hold a Senior Reactor Operator License.

i. ~~An individual shall provide advisory technical support to the unit operations shift crew in the areas of engineering and accident assessment. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. This individual with a Senior Reactor Operator license may simultaneously serve a required SRO position.~~

INSERT F

ATTACHMENT 4

CNRO-2012-00009 / ENOC 12-00034

BIG ROCK POINT TECHNICAL SPECIFICATIONS PAGE MARKUP

BIG ROCK POINT DEFUELED TECHNICAL SPECIFICATIONS

6.0 ADMINISTRATIVE CONTROLS

6.3 STAFF QUALIFICATIONS

Insert A here

Each member of the facility management and supervisory staff shall meet the minimum requirements of ANSI N18.1-1971 for comparable positions. The individual responsible for radiation protection functions shall meet the minimum requirements of Regulatory Guide 1.8, September 1975.[‡]

6.4 REVIEW AND AUDIT

Requirements for onsite and offsite reviews and audits are described in the Quality Program Description for Big Rock Point.

Insert A:

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 Entergy Quality Assurance Program Manual (QAPM).

[‡] As applied to this specification, "equivalent," as used in Regulatory Guide 1.8 for the bachelor's degree requirement, may be met with four years of any one or combination of the following: (a) formal training in science engineering or (b) operational or technical experience and training in nuclear power.

ATTACHMENT 5

CNRO-2012-00009 / ENOC 12-00034

CLEAN PAGES OF THE QAPM AND EACH PLANT'S TECHNICAL SPECIFICATIONS

QAPM

Table 1 Regulatory Commitments

A. Regulatory Guide 1.8 Revision 1, dated September 1975

Clarification/Exception

1. Section C

Entergy is committed to Sections 1 – 4 of ANSI/ANS 3.1-1978 with the following clarifications and exceptions.

Qualification requirements for personnel shall meet ANSI/ANS 3.1-1978 except the following:

- a. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, 1987.
- b. Managers required to hold an SRO license are specified in the applicable unit's Technical Specifications.
- c. Licensed Operators shall be qualified in accordance with the requirements of 10 CFR 55.

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.

2. General

The following qualifications may be considered equivalent to a bachelor's degree:

- a. 4 years of post secondary schooling in science or engineering,
- b. 4 years of applied experience at a nuclear facility in the area for which qualification is sought,
- c. 4 years of operational or technical experience/training in nuclear power, or
- d. any combination of the above totaling 4 years.

Years of experience used to meet the education requirements as allowed by this exception shall not be used to also meet the experience requirements.

A. Regulatory Guide 1.8 (continued)

3. ANSI/ANS 3.1
Section 4.4
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
Entergy 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.

ANO-1

5.0 ADMINISTRATIVE CONTROLS

5.2 Organization

- c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) for one unit, one control room, and 5.2.2.a and 5.2.2.f for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
 - d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
 - e. The operations manager or assistant operations manager shall hold an SRO license.
 - f. When in MODES 1, 2, 3, or 4 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified in ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
-

5.0 ADMINSTRATIVE CONTROLS

5.3 Unit Staff Qualifications

- 5.3.1 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 Entergy Quality Assurance Program Manual (QAPM).
- 5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 5.3.1, perform the functions described in 10 CFR 50.54(m).
-

ANO-2

ADMINISTRATIVE CONTROLS

6.2.2 UNIT STAFF

- a. A non-licensed operator shall be on site when fuel is in the reactor and two additional non-licensed operators shall be on site when the reactor is in MODES 1, 2, 3, or 4.
- b. The minimum shift crew composition for licensed operators shall meet the minimum staffing requirements of 10 CFR 50.54(m)(2)(i) for one unit, one control room.
- c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) for one unit, one control room, and 6.2.2.a and 6.2.2.f for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
- d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
- e. The operations manager or the assistant operations manager shall hold a SRO license.
- f. When in MODES 1, 2, 3, or 4 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.

ADMINISTRATIVE CONTROLS

6.3 UNIT STAFF QUALIFICATIONS

- 6.3.1 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 Entergy Quality Assurance Program Manual (QAPM).
- 6.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 6.3.1, perform the functions described in 10 CFR 50.54(m).

6.4 PROCEDURES

- 6.4.1 Written procedures shall be established, implemented, and maintained covering the following activities:
- a. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978;
 - b. The emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in Section 7.1 of Generic Letter 82-33;
 - c. Fire Protection Program implementation;
 - d. All programs specified in Specification 6.5; and
 - e. Modification of core protection calculator (CPC) addressable constants. These procedures shall include provisions to ensure that sufficient margin is maintained in CPC type I addressable constants to avoid excessive operator interaction with the CPCs during reactor operation.

Modifications to the CPC software (including changes of algorithms and fuel cycle specific data) shall be performed in accordance with the most recent version of "CPC Protection Algorithm Software Change Procedure," CEN-39(A)-P, which has been determined to be applicable to the facility. Additions or deletions to CPC addressable constants or changes to addressable constant software limit values shall not be implemented without prior NRC approval.

Big Rock Point

BIG ROCK POINT DEFUELED TECHNICAL SPECIFICATIONS

6.0 ADMINISTRATIVE CONTROLS

6.3 STAFF QUALIFICATIONS

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 Entergy Quality Assurance Program Manual (QAPM).

6.4 REVIEW AND AUDIT

Requirements for onsite and offsite reviews and audits are described in the Quality Program Description for Big Rock Point.

Grand Gulf Nuclear Station

5.2 Organization

5.2.2 Unit Staff (continued)

- e. The operations manager or at least one operations middle manager shall hold an SRO license.
 - f. When in MODES 1, 2, or 3 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
-
-

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 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 Entergy Quality Assurance Program Manual (QAPM). For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 5.3.1, perform the functions described in 10 CFR 50.54 (m).

Indian Point 1 and 2

5.2 Organization

5.2.2 Unit Staff (continued)

- b. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.f for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
 - c. A radiation protection technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
 - d. Not Used
 - e. The operations manager or assistant operations manager shall hold an SRO license.
 - f. When in MODES 1, 2, or 3 an individual shall provide shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by Regulatory Guide 1.8, Revision 3, 2000.
-

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 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 Entergy Quality Assurance Program Manual (QAPM)

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

Indian Point 3

5.2 Organization

5.2.2 Unit Staff (continued)

- e. The operations manager or assistant operations manager shall hold an SRO license.
 - f. When in MODES 1, 2, or 3 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by Regulatory Guide 1.8, Revision 3, 2000.
-

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 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 Entergy Quality Assurance Program Manual (QAPM).

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

James A. FitzPatrick

5.2 Organization

5.2.2 Plant Staff (continued)

- b. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.f for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
 - c. A radiation protection technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
 - d. Deleted
 - e. The operations manager or assistant operations manager shall hold an SRO license.
 - f. When in MODES 1, 2, or 3 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
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5.0 ADMINISTRATIVE CONTROLS

5.3 Plant Staff Qualifications

- 5.3.1 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 Entergy Quality Assurance Program Manual (QAPM).
- 5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).
-

Palisades

5.2 Organization

Plant Staff (continued)

- c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i), and 5.2.2.a and 5.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the requirements.
 - d. A radiation safety technician shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
 - e. Not Used
 - f. The operations manager or an assistant operations manager shall hold an SRO license. The individual holding the SRO license shall be responsible for directing the activities of the licensed operators.
 - g. When in MODES 1, 2, 3, or 4 an individual shall provide advisory technical support to the plant operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the plant. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
-

5.0 ADMINISTRATIVE CONTROLS

5.3 Plant Staff Qualifications

- 5.3.1 Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Energy Quality Assurance Program Manual (QAPM).
- 5.3.2 (Deleted)
- 5.3.3 (Deleted)
- 5.3.4 (Deleted)
- 5.3.5 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).
-

Pilgrim

5.2 Organization

5.2.2 Unit Staff (continued)

- b. At least one licensed Reactor Operator (RO) shall be present in the control room when fuel is in the reactor. In addition, while the unit is in an operational mode other than Cold Shutdown or Refueling, at least one licensed Senior Reactor Operator (SRO) shall be present in the control room.
 - c. At least two licensed ROs shall be present in the control room during reactor startup, scheduled reactor shutdown and during recovery from reactor trips.
 - d. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.i for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
 - e. Higher grade licensed operators may take the place of lower grade licensed or unlicensed personnel.
 - f. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
 - g. Deleted
 - h. The operations manager or assistant operations manager shall hold a Senior Reactor Operator License.
 - i. When the unit is in an operational mode other than Cold Shutdown or Refueling, an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
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5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

- 5.3.1 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 Entergy Quality Assurance Program Manual (QAPM).
- 5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 5.3.1, perform the functions described in 10 CFR 50.54(m).
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River Bend Station

5.2 Organization

5.2.2 Unit Staff (continued)

- f. The operations manager or at least one operations middle manager shall hold an SRO license.
 - g. When in MODES 1, 2, or 3 an individual shall provide advisory technical support to the unit operations crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.
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5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 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 Entergy Quality Assurance Manual (QAPM).

5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 5.3.1, perform the functions described in 10 CFR 50.54(m).

Vermont Yankee

6.2 ORGANIZATION (Cont'd)

4. The individuals who train the operating staff, carry out health physics, or perform quality assurance functions may report to the appropriate on-site manager; however, these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

B. Unit Staff

The unit staff organization shall include the following:

1. A non-licensed operator shall be assigned when the reactor contains fuel and an additional non-licensed operator shall be assigned during Plant Startup and Normal Operation.
2. At least one licensed Reactor Operator (RO) or one licensed Senior Reactor Operator (SRO) shall be present in the control room when fuel is in the reactor.
3. When the unit is in Plant Startup or Normal Operation, at least one licensed Senior Reactor Operator (SRO) and one licensed Reactor Operator (RO), or two licensed Senior Reactor Operators, shall be present in the control room.
4. Shift crew composition shall meet the requirements stipulated herein and in 10 CFR 50.54(m). Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m) (2) (i) and Specifications 6.2.B.1 and 6.2.B.8 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members, provided immediate action is taken to restore the shift crew composition to within the minimum requirements.
5. An individual qualified in radiation protection procedures shall be present on-site when there is fuel in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
6. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety related functions (e.g., licensed SROs, licensed ROs, radiation protection technicians, auxiliary operators, and key maintenance personnel).
7. The operations manager or an assistant operations manager shall hold an SRO license.
8. When the unit is in Plant Startup or Normal Operation an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.

6.2 ORGANIZATION (Cont'd)C. Unit Staff Qualifications

1. 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 Energy Quality Assurance Program Manual (QAPM).
2. For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 6.2.C.1, perform the functions described in 10 CFR 50.54(m).

6.3 ACTION TO BE TAKEN IF A SAFETY LIMIT IS EXCEEDED

Applies to administrative action to be followed in the event a safety limit is exceeded.

If a safety limit is exceeded, the reactor shall be shutdown immediately.

6.4 PROCEDURES

Written procedures shall be established, implemented, and maintained covering the following activities:

- A. Normal startup, operation and shutdown of systems and components of the facility.
- B. Refueling operations.
- C. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components, suspected Primary System leaks and abnormal reactivity changes.
- D. Emergency conditions involving potential or actual release of radioactivity.
- E. Preventive and corrective maintenance operations which could have an effect on the safety of the reactor.
- F. Surveillance and testing requirements.
- G. Fire protection program implementation.
- H. Process Control Program in-plant implementation.
- I. Off-Site Dose Calculation Manual implementation.

6.5 HIGH RADIATION AREA

As provided in paragraph 20.1601(c) of 10 CFR 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraphs 20.1601(a) and 20.1601(b) of 10 CFR 20:

- A. High Radiation Areas with dose rates greater than 0.1 rem/hour at 30 centimeters, but not exceeding 1.0 rem/hour at 30 centimeters from the radiation source or from any surface penetrated by the radiation:

Waterford 3

ADMINISTRATIVE CONTROLS

6.2.3 Not Used

6.2.4 SHIFT TECHNICAL ADVISOR

When in MODES 1, 2, 3, or 4 an individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operations of the unit. This individual shall meet the qualifications specified by ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev. 3, 2000.

ADMINISTRATIVE CONTROLS

6.3 UNIT STAFF QUALIFICATIONS

- 6.3.1 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 Entergy Quality Assurance Program Manual (QAPM).
- 6.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of Specification 6.3.1, perform the functions described in 10 CFR 50.54(m).

6.4 NOT USED.

6.5 PROGRAMS

The following programs shall be established, implemented, and maintained.

6.5.1 through 6.5.4 will be used later.

6.5.5 COMPONENT CYCLIC OR TRANSIENT LIMIT

This program provides controls to track Technical Requirements Manual Section 5.7 cyclic and transient occurrences to ensure that components are maintained within the design limits.

6.5.6 Will be used later.

6.5.7 REACTOR COOLANT PUMP FLYWHEEL INSPECTION PROGRAM

This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendation of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975. The volumetric examination per Regulatory Position C.4.b.1 will be performed on approximately 10-year intervals.