Exelon Generation

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10 CFR 50.90

RS-17-161
TMI-17-106

March 1, 2018

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

Braidwood Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
NRC Docket Nos. 50-317 and 50-318

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Dresden Nuclear Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Limerick Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Nine Mile Point Nuclear Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-63 and NPF-69
NRC Docket Nos. 50-220 and 50-410

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

Quad Cities Nuclear Power Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

R.E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
NRC Docket No. 50-244

Three Mile Island Nuclear Station, Unit 1
Renewed Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject: Exelon Fleet License Amendment Request to Relocate Technical Specification Unit/Facility/Plant Staff Qualification ANSI N18.1-1971 and ANSI/ANS-3.1-1978 Requirements to the Exelon Quality Assurance Topical Report (QATR)

Reference: 1. NRC Administrative Letter 95-06: "Relocation of Technical Specification Administrative Controls Related to Quality Assurance"

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) is requesting changes to the Technical Specifications (TS), Appendix A of the facility operating licenses listed above.

The proposed changes will relocate the TS Unit/Facility/Plant staff qualification requirements from either ANSI N18.1-1971, "American National Standard Selection and Training of Nuclear Power Plant Personnel," or ANSI/ANS-3.1-1978, "American National Standard for Selection and Training of Nuclear Power Plant Personnel," to the Exelon Quality Assurance Topical Report (QATR) consistent with NRC Administrative Letter 95-06 (Reference 1) guidance.

Attachment 1 to this letter provides the evaluation of the proposed changes and the no significant hazards consideration determination. Attachment 2 provides the existing TS pages marked up to show the proposed changes. Attachment 3 provides the existing QATR marked up to show the proposed changes.

These proposed changes have been reviewed and approved by each station's Plant Operations Review Committee in accordance with the requirements of the EGC Quality Assurance Program.

There are no regulatory commitments contained within this submittal. EGC requests approval of the proposed license amendments by September 4, 2018. Once approved, the amendments shall be implemented within 60 days.

The States of Illinois, Maryland, New York and Pennsylvania are being notified of this request for changes to the Technical Specifications by transmitting a copy of this letter and its attachments to the designated State officials.

Should you have any questions concerning this submittal, please contact Frank J. Mascitelli at (610) 765-5512.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 1st day of March 2018.

Respectfully,

James Barstow
Director - Licensing and Regulatory Affairs
Exelon Generation Company, LLC

Attachments: 1. Evaluation of Proposed Changes
2. Proposed Technical Specifications Marked-Up Pages
3. Exelon Quality Assurance Topical Report (QATR) Marked-Up Pages

cc: Regional Administrator - NRC Region I
Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station
NRC Senior Resident Inspector - Byron Station
NRC Senior Resident Inspector - Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector - Clinton Power Station
NRC Senior Resident Inspector - Dresden Nuclear Power Station
NRC Senior Resident Inspector - James A. FitzPatrick Nuclear Power Plant
NRC Senior Resident Inspector - LaSalle County Station
NRC Senior Resident Inspector - Limerick Generating Station
NRC Senior Resident Inspector - Nine Mile Point Nuclear Station
NRC Senior Resident Inspector - Peach Bottom Atomic Power Station
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station
NRC Senior Resident Inspector - R.E. Ginna Nuclear Power Plant
NRC Senior Resident Inspector - Three Mile Island Nuclear Station, Unit 1
NRC Project Manager - Braidwood Station
NRC Project Manager - Byron Station
NRC Project Manager - Calvert Cliffs Nuclear Power Plant
NRC Project Manager - Clinton Power Station
NRC Project Manager - Dresden Nuclear Power Station
NRC Project Manager - James A. FitzPatrick Nuclear Power Plant
NRC Project Manager - LaSalle County Station
NRC Project Manager - Limerick Generating Station
NRC Project Manager - Nine Mile Point Nuclear Station
NRC Project Manager - Peach Bottom Atomic Power Station
NRC Project Manager - Quad Cities Nuclear Power Station
NRC Project Manager - R.E. Ginna Nuclear Power Plant
NRC Project Manager - Three Mile Island Nuclear Station, Unit 1
R. R. Janati - Bureau of Radiation Protection, Commonwealth of Pennsylvania
S. T. Gray, State of Maryland
Illinois Emergency Management Agency - Division of Nuclear Safety
A. L. Petersen, NYSERDA

Attachment 1

Evaluation of Proposed Changes

Exelon (EGC) Fleet License Amendment Request to Relocate Technical Specification Unit/Facility/Plant Staff Qualification ANSI N18.1-1971 and ANSI/ANS-3.1-1978 Requirements to the EGC Quality Assurance Topical Report (QATR) for Braidwood Station, Byron Station, Calvert Cliffs Nuclear Power Plant, Clinton Power Station, Dresden Nuclear Power Station, James A. FitzPatrick Nuclear Power Plant, LaSalle County Station, Limerick Generating Station, Nine Mile Point Nuclear Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, R.E. Ginna Nuclear Power Plant and Three Mile Island Nuclear Station, Unit 1.

1.0 DESCRIPTION

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (EGC) is requesting that the Technical Specifications (TS), Appendix A of the facility operating licenses for Braidwood Station, Byron Station, Calvert Cliffs Nuclear Power Plant, Clinton Power Station, Dresden Nuclear Power Station, James A. FitzPatrick Nuclear Power Plant, LaSalle County Station, Limerick Generating Station, Nine Mile Point Nuclear Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, R.E. Ginna Nuclear Power Plant and Three Mile Island Nuclear Station, Unit 1 under Facility Operating License Nos. NPF-72 and NPF-77; NPF-37 and NPF-66; DPR-53 and DPR-69; NPF-62; DPR-19 and DPR-25; DPR-59: NPF-11 and NPF-18; NPF-39 and NPF-85; DPR-63 and NPF-69; DPR-44 and DPR-56; DPR-29 and DPR-30; DPR-18 and DPR-50, respectively, be amended as proposed to permit relocation of the Unit/Facility/Plant Staff Qualification ANSI N18.1-1971 and ANSI/ANS-3.1-1978 requirements for nuclear plant personnel from the TS to the EGC Quality Assurance Topical Report (QATR)(Reference 1).

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

2.0 PROPOSED CHANGES

The specific TS changes for each station are shown in Attachment 2. For the purpose of general discussion, the proposed changes are as follows:

Proposed Typical Change to TS 5.3.1
(For Braidwood, Byron, Calvert Cliffs, Clinton, Dresden, James A. Fitzpatrick, LaSalle, Nine Mile Point-2, Peach Bottom, Quad Cities, R.E. Ginna)

Proposed Typical Change to TS 6.3.1
(For Limerick, Nine Mile Point-Unit 1, Three Mile Island-Unit-1)

Change from (typically):

"Each member of the unit [facility or plant] staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 [or ANSI/ANS 3.1-1978], with the following exceptions…"

Change to:

"Each member of the unit [facility or plant] staff shall meet or exceed the minimum qualifications referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report."

Proposed Change to TS 5.2.2.f (James A. FitzPatrick only)

Change from:

"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."

Change to:

"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 in the Exelon Quality Assurance Topical Report."

3.0 BACKGROUND

The existing TS requirements for unit/facility/plant staff qualifications are based on NRC endorsed industry standards to ensure that a licensee's staff is appropriately qualified and trained for their respective positions. Currently, Regulatory Guide (RG) 1.8 Revision 3, May 2000, "Qualification and Training of Personnel for Nuclear Power Plants," endorses ANSI/ANS-3.1-1993, "Selection, Qualification, and Training of Personnel for Nuclear Power Plant," with certain clarifications, additions, and exceptions. At present, NRC staff are evaluating a proposed Revision 4 to RG 1.8, which is expected to endorse ANSI/ANS 3.1-2014 (Reference 2). EGC desires to adopt and standardize our fleet to the ANSI/ANS 3.1-2014 standard, with certain exceptions. EGC desires to relocate to the QATR the TS ANSI/ANS-3.1-1978 and ANSI N18.1-1971 requirements in order to quickly adopt the 2014 ANSI standard when NRC endorsed, and to eliminate future license amendment requests due only to upgrades to future revisions to the ANSI/ANS 3.1 standard and RG 1.8.

4.0 TECHNICAL EVALUATION

The proposed changes will relocate the TS Unit/Facility/Plant Staff Qualification ANSI N18.1-1971 and ANSI/ANS-3.1-1978 requirements for nuclear plant personnel from the TS to the EGC QATR. The requirements will be relocated verbatim to the QATR. The only exception to this is a minor change for the James A. FitzPatrick Nuclear Power Plant (JAF), whose current TS 5.3.1 references "Entergy Quality Assurance Program Manual (QAPM)" exceptions. For JAF, the TS 5.3.1 requirements and exceptions had already been elaborated in the most recent EGC QATR Revision 92, approved 10/4/17. Therefore, JAF TS 5.3.2 requirements will only need to be relocated verbatim to the QATR. In addition, JAF has a specific requirement in TS 5.2.2.f for their Shift Technical Advisor to meet the requirements of ANSI/ANS 3.1-1993 as endorsed by RG 1.8, Rev 3, 2000. This requirement will also be relocated to avoid future potential conflict when EGC adopts ANSI/ANS-3.1-2014 requirements for Shift Technical Advisors.

This LAR does not change any current staff ANSI qualification requirements for any of the stations included in this submittal and is only an administrative TS change.

10 CFR 50.36(c)(5), requires technical specifications to include items in the administrative controls category. Items include provisions relating to organization and management, procedures, recordkeeping, review and audit and reporting to assure operation of the facility in a safe manner. In 1995 NRC acknowledged that many license amendments were being processed (e.g., organizational changes, position title changes, organization description changes, procedure review process, etc.) to relocate TS items to the licensee's quality assurance plan. The items being relocated from TS did not satisfy the criteria of 10 CFR 50.36 for inclusion as a limiting condition for operation and were adequately controlled by other regulations and related licensee programs. NRC issued Administrative Letter (AL) 95-06, "Relocation of Technical Specification Administrative Controls Related to Quality Assurance," to address this issue and to provide additional guidance for relocating TS administrative controls to the licensee's quality assurance plan. The proposed changes are consistent with the guidance in AL 95-06 for relocating a licensee's TS requirements to its quality assurance plan.

The unit/facility/plant staff qualifications do not satisfy the criteria of 10 CFR 50.36 for inclusion in TS as a limiting condition for operation and are adequately controlled by other regulations and EGC training programs. EGC meets the training requirements specified in 10 CFR 55, "Operators' Licenses," 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," and NUREG-1021,"Operator Licensing Examination Standards for Power Reactors." In addition, on March 20, 1985, the NRC issued the Commission Policy Statement on Training and Qualification of Nuclear Power Plant Personnel, which endorsed the training accreditation program developed by INPO, in association with National Academy for Nuclear Training (NANT). The NRC has documented discussion, approval, and acceptance of NANT guidelines in RIS 01-001, "Eligibility of Operator License Applicants," and NUREG 1021, "Operator Licensing Examinations Standards for Power Reactors." EGC training programs employ the systems approach to training (SAT) required by 10 CFR 50.120 as embodied in the INPO NANT standards for plant staff personnel and their qualifications.

Consistent with the guidance in AL 95-06, future changes to the QATR staff qualification requirements will be evaluated under the 10 CFR 50.54(a) evaluation process. EGC plans to adopt the ANSI/ANS-3.1-2014 standard via a future QATR change using the 10 CFR 50.54(a) evaluation process when RG 1.8 Revision 4, which is expected to endorse this standard, is approved and issued by NRC staff.

In summary, the proposed changes do not change current staff qualification requirements, and are intended to facilitate a timely transition to RG 1.8 Revision 4 requirements, when NRC approved. The unit/facility/plant staff qualification requirements are identical (except as previously noted for JAF) between the current plant's TS and the proposed marked-up EGC QATR (Attachment 3). Future changes to the EGC QATR are controlled by compliance changes to 10 CFR 50.54(a).

5.0 REGULATORY EVALUATION

5.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met. EGC has determined that existing requirements continue to be met and that the proposed changes do not require any exemptions or relief from regulatory requirements. The following current applicable regulations and regulatory requirements were reviewed in making this determination:

10 CFR 50.36

10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," Section 36, "Technical specifications," Paragraph (c)(5), "Administrative controls," requires provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting to be included in the technical specification that are necessary to assure operation of the facility in a safe manner. The proposed changes conform to 10 CFR 50.36(c)(5) requirements.

10 CFR 50.120

10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," Section 120, "Training and qualification of nuclear power plant personnel," requires that each nuclear power plant licensee or applicant for an operator license to establish, implement, and maintain the training and qualification programs that are derived from a systems approach to training as defined in 10 CFR 55.4. The proposed changes conform to 10 CFR 50.120 requirements.

10 CFR 55

10 CFR 55, "Operators' Licenses," Subpart D, "Applications," requires that operator license applications include information concerning an individual's education, experience, and other related matters to provide evidence and certification that the applicant has successfully completed the facility licensee's training program that is based on a systems approach to training. The proposed changes conform to 10 CFR 55 requirements.

NUREG-1021, Revision 11

NUREG-1021, "Operator Licensing Examination Standards For Power Reactors," establishes the policies, procedures, and practices for examining licensees and applicants for reactor operator and senior reactor operator licenses at nuclear power reactor facilities under 10 CFR Part 55, "Operators' Licenses." The EGC operator training program meets the current requirements of NANT Academy Document, ACAD 10-001. The proposed changes conform to NUREG-1021 requirements.

Regulatory Guide 1.8, Revision 3

Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," describes a method that the NRC staff finds acceptable for complying with the NRC's regulations regarding training and qualification of nuclear power plant personnel. The proposed changes maintain the current commitments and exceptions to RG 1.8 (Revisions 1-3), as identified in current TS staff qualifications requirements, and are being relocated verbatim to the QATR.

Administrative Letter (AL) 95-06, "Relocation of Technical Specification Administrative Controls Related to Quality Assurance"

Licensees have been requesting amendments to technical specifications that are located in the "administrative controls" section and are related to quality assurance programs. Licensees have frequently requested amendments to these specifications because they contain detailed information that is affected by organizational and process changes. Many licensees have revised their technical specifications to remove excessive detail, thereby gaining flexibility in making organizational changes without the need for a license amendment.

In addition, recent amendment requests related to quality assurance have also followed the trend for other technical specifications and have included moving requirements to licensee controlled documents and programs. The quality assurance program is a logical candidate for such relocations due to the controls imposed by such regulations as Appendix B to 10 CFR Part 50, the existence of U.S. Nuclear Regulatory Commission-approved quality assurance plans and commitments to industry quality assurance standards, and the established quality assurance program change control process in 10 CFR 50.54(a). The relocation of technical specification requirements in cases where adequate controls are provided by such other methods can reduce the resources spent by licensees and the U.S. Nuclear Regulatory Commission staff in preparing and reviewing license amendment requests.

The proposed changes to relocate TS staff ANSI qualification requirements conform to AL 95-06 in that the ANSI standards being relocated are considered quality assurance standards that do not satisfy the criteria of 10 CFR 36 for inclusion as a limiting condition for operation and are adequately controlled by other regulations (e.g., 10 CFR 50.120 and 10 CFR 55) and licensee programs (EGC Training Programs that comply with INPO NANT standards).

5.2 Precedent

On March 27, 2017 NRC issued TS amendments (Reference 3) to Browns Ferry Nuclear Plant, Units 1, 2, and 3 and Sequoyah Nuclear Plant, Units 1 and 2 to revise their TS 5.3, "Unit Staff Qualifications," to delete the references to RG 1.8 Revision 2, and replace them with references to the TVA Nuclear Quality Assurance Plan. Both plants requested to be consistent with existing Watts Bar Nuclear Plant TS (Reference 4), which referred their TS 5.3 Unit Staff Qualification requirements to the TVA Quality Assurance Plan.

5.3 No Significant Hazards Consideration

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

1. Will operation of the facility in accordance with the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes do not make any physical changes to the plants, are administrative in nature, and do not alter accident analysis assumptions, add any initiators or affect the function of plant systems, or the manner in which systems are operated, maintained, tested, or

inspected. The proposed changes do not require any plant modifications which affect the performance capability of the structures, systems and components relied upon to mitigate the consequences of postulated accidents. The unit/facility/plant staff qualification requirements remain the same and are being relocated from the Technical Specifications (TS) to the EGC Quality Assurance Topical Report (QATR).

Based on the above discussion, EGC concludes that the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Will operation of the facility in accordance with the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes do not involve changes to unit/facility/plant staff selection, qualification and training programs, are administrative in nature, and do not impact physical plant systems. The qualification standards are being relocated from the TS to the EGC QATR. As a result, the ability of the plant to respond to and mitigate accidents is unchanged by the proposed changes. The proposed changes do not alter accident analysis assumptions, add any initiators, or affect the function of plant systems or the manner in which systems are operated, maintained, modified, tested, or inspected.

Based on the above discussion, EGC concludes that the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed changes are administrative in nature. The proposed changes do not affect plant design, hardware, system operation, or procedures for accident mitigation systems. The proposed changes do not impact any plant safety margins that are established in existing limiting conditions for operation, limiting safety systems settings and specified safety limits. There are no changes in the established safety margins of these systems. The proposed changes do not impact the performance or proficiency requirements for licensed operators or unit/facility/plant staff, since the qualification standards are not changing and are only being relocated from the TS to the EGC QATR. As a result, the ability of the plant to respond to and mitigate accidents is unchanged by the proposed changes. Therefore, these proposed changes do not involve a significant reduction in a margin of safety.

Based on the above discussion, EGC concludes that the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above evaluation of the three criteria, EGC concludes that the proposed amendments present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.4 Conclusion

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

6.0 ENVIRONMENTAL CONSIDERATION

The proposed amendments do not change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR 20 and do not change surveillance requirements. The proposed amendment relocates TS requirements for Unit/Facility/Plant Staff Qualifications to the EGC QATR. The proposed amendments do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure.

Accordingly, the proposed amendments meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, in accordance with 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendments.

7.0 REFERENCES

1. Exelon Generation Company, LLC, Quality Assurance Topical Report (QATR), NO-AA-10, Revision 92, dated October 4, 2017

2. ANSI/ANS-3.1-2014, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants," approved by ANSI on November 20, 2014

3. Browns Ferry Nuclear Plant, Units 1, 2 and 3, and Sequoyah Nuclear Plant, Units 1 and 2 – Issuance of Amendments Re: Changes to Technical Specification 5.3, "Unit Staff Qualifications" (CAC NOS. MF7607, MF7608, MF7609, MF7610 and MF7611), dated March 27, 2017 (ML17034A360)

4. Application to Revise the Technical Application to Revise the Technical Specifications for the Browns Ferry Nuclear Plant (TS-504) and Sequoyah Nuclear Plant (TS 16-02) on Unit Staff Qualifications to Achieve Consistency between the Tennessee Valley Authority Nuclear Plants, dated April 14, 2016 (ML16105A287)

Attachment 2

Proposed Technical Specifications Marked-Up Pages

Exelon Fleet License Amendment Request to Relocate Technical Specification Unit/Facility/Plant Staff Qualification ANSI N18.1-1971 and ANSI/ANS-3.1-1978 Requirements to the Exelon Quality Assurance Topical Report (QATR) for Braidwood Station, Byron Station, Calvert Cliffs Nuclear Power Plant, Clinton Power Station, Dresden Nuclear Power Station, James A. FitzPatrick Nuclear Power Plant, LaSalle County Station, Limerick Generating Station, Nine Mile Point Nuclear Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, R.E. Ginna Nuclear Power Plant and Three Mile Island Nuclear Station, Unit 1

Braidwood, Units 1 & 2	TS page 5.3-1
Byron, Units 1 & 2	TS page 5.3-1
Calvert Cliffs, Units 1 & 2	TS page 5.3-1
Clinton	TS page 5.0-5
Dresden, Units 2 & 3	TS page 5.3-1
James A. FitzPatrick	TS page 5.2-2
	TS page 5.3-1
LaSalle, Units 1 & 2	TS page 5.3-1
Limerick, Units 1 & 2	TS page 6-6
Nine Mile Point, Unit 1	TS page 349
Nine Mile Point, Unit 2	TS page 5.3-1
Peach Bottom, Units 2 & 3	TS page 5.0-5
Quad Cities, Units 1 & 2	TS page 5.3-1
R. E. Ginna	TS page 5.3-1
Three Mile Island, Unit 1	TS page 6-3

5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualifications

5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications ~~of ANSI N18.1-1971, with the following exceptions: 1) either the senior health physics supervisor or lead health physicist, shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualifications

5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications ~~of ANSI N18.1-1971, with the following exceptions: 1) either the senior health physics supervisor or lead health physicist, shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971, for comparable positions, except for the Radiation Protection Manager, who shall meet or exceed the requirements of Regulatory Guide 1.8, September 1975, and the Shift Technical Advisor, who shall meet the requirements of Specification 5.2.2.g.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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, with the following exception: the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971, with the following exceptions: 1) the radiation protection manager shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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.~~

in the Exelon Quality Assurance Topical Report

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).~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971, with the following exceptions: 1) the radiation protection manager shall meet the requirements of "radiation protection manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55. Also, the ANSI N18.1-1971 qualification requirements for "radiation protection technician" may be met by either of the following alternatives:~~

~~a. Individuals who have completed the radiation protection technician training program and have accrued one year of working experience in the specialty; or~~

~~b. Individuals who have completed the radiation protection technician training program, but have not yet accrued one year of working experience in the specialty, who are supervised by on-shift radiation protection supervision who meet the requirements of ANSI N18.1-1971, Section 4.3.2 or Section 4.4.4.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

6.2.3 DELETED. The information from this section is located in the UFSAR.

6.2.4 SHIFT TECHNICAL ADVISOR

6.2.4.1 The Shift Technical Advisor shall provide advisory technical support to Shift Supervision in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to safe operation of the unit. The Shift Technical Advisor shall meet the qualifications specified by the 1985 NRC Policy Statement on Engineering Expertise on Shift.

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, except for the Manager - Radiation Protection who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and the licensed operators who shall comply only with the requirements of 10CFR55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

6.2.3 DELETED. The information from this section is located in the UFSAR.

6.2.4 SHIFT TECHNICAL ADVISOR

6.2.4.1 The Shift Technical Advisor shall provide advisory technical support to Shift Supervision in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to safe operation of the unit. The Shift Technical Advisor shall meet the qualifications specified by the 1985 NRC Policy Statement on Engineering Expertise on Shift.

6.3 UNIT STAFF QUALIFICATIONS

6.3.1 Each member of unit staff shall meet or exceed the minimum qualifications ~~of ANSI/ANS 3.1-1978 for comparable positions, except for the Manager - Radiation Protection who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and the licensed operators who shall comply only with the requirements of 10CFR55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

e. As a minimum, either the Manager Operations or the General Supervisor Operations shall hold an SRO license.

f. The Shift Technical Advisor (STA) shall provide advisory technical support to the shift supervision in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

6.3 Unit Staff Qualifications

6.3.1 Each member of the unit staff~~, with the exception of the operator license applicants and the radiation protection manager,~~ shall meet or exceed the minimum qualifications ~~of ANSI N18.1-1971 for comparable positions. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. The education and experience eligibility requirements for operator license applicants, and changes thereto, shall be those previously reviewed and approved by the NRC; specifically, those referenced in letter NMP1L 2184, dated December 20, 2007, and described in applicable station training procedures.~~

~~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 and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1972 and cover the following activities:

a. The applicable procedures recommended in Regulatory Guide 1.33, Appendix A, November 3, 1972;

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

5.0 ADMINISTRATIVE CONTROLS

5.3 Unit Staff Qualifications

5.3.1 Each member of the unit staff~~, with the exception of the operator license applicants and the radiation protection manager,~~ shall meet or exceed the minimum qualifications ~~of ANSI/ANS 3.1-1978 for comparable positions. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. The education and experience eligibility requirements for operator license applicants, and changes thereto, shall be those previously reviewed and approved by the NRC; specifically, those referenced in letter NMPIL 2184, dated December 20, 2007, and described in applicable station training procedures.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971 for comparable positions described in the UFSAR, with the following exceptions: 1) the Manager Radiation Protection shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

~~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).~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971 for comparable positions described in the UFSAR, with the following exceptions: 1) the Manager Radiation Protection shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

~~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).~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 N18.1-1971, with the following exceptions: 1) the radiation protection manager or lead radiation protection technician who shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 Standard N18.1-1971, as supplemented by Regulatory Guide 1.8, Revision 1, September 1975, for comparable positions.~~

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

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 of 1978 for comparable positions unless otherwise noted in the Technical Specifications, with the following exceptions: 1) the licensed operators who shall comply only with the requirements of 10 CFR 55, and 2) individuals who do not meet ANSI/ANS 3.1 of 1978, Section 4.5, are not considered technicians or maintenance personnel for purposes of determining qualifications but are permitted to perform work for which qualification has been demonstrated.~~

~~6.3.2 The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 of 1977. Each radiological controls technician/supervisor shall meet or exceed the qualifications of ANSI N 18.1 1971, paragraph 4.5.2/4.3.2, or be formally qualified through an NRC approved TMI I Radiation Controls training program. All radiological controls technicians will be qualified through training and examination in each area or specific task related to their radiological controls functions prior to their performance of those tasks.~~

~~6.3.3 The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in unit design, response and analysis of transients and accidents.~~

6.4 TRAINING

6.4.1 A training program for the Fire Brigade shall be maintained and shall meet or exceed the requirements of Section 600 of the NFPA Code.

6.5 DELETED

referenced for comparable positions as specified in the Exelon Quality Assurance Topical Report.

Attachment 3

Exelon Quality Assurance Topical Report (QATR) Marked-Up Pages

1.1 Codes and Standards

The QAP takes into account the need for special controls, processes, test equipment, tools, and skills necessary to attain the required quality and the need for the verification of quality by inspection and test. The Codes and Standards listed below represent a listing of quality assurance codes and standards used to define the quality assurance program. A general listing of quality assurance related codes and standards, such as: ASME B&PV, ANSI, AWS, and IEEE used throughout Exelon at each nuclear site can be found in the applicable site specific Updated Final Safety Analysis Reports (UFSARs). The UFSAR should be referenced to identify site specific commitments (including dates and/or addenda) with respect to these codes and standards. This Quality Assurance Program (QAP) complies with the quality requirements of the following codes and standards as indicated in site specific UFSARs unless otherwise noted in sub-section 1.3 (the UFSAR may address position specific exceptions or clarifications on a site by site basis).

— ANSI N18.1 – 1971, "Selection and Training of Nuclear Power Plant Personnel" Applicable to *Calvert Cliffs, *Ginna, *Dresden, *LaSalle, * Nine Mile Point Unit one and two, *Oyster Creek (for RP personnel), *Peach Bottom, *Quad Cities, and *TMI (RP and RP Supervisors only). For Braidwood, Byron, Calvert Cliffs, Dresden, Ginna, LaSalle, *Nine Mile Point Unit one and Two, Peach Bottom, Quad Cities, Licensed Operators shall comply only with the requirements of 10CFR 55.
(* per station Technical Specification, this does not include the Lead HP/RP person, who shall meet Reg. Guide 1.8)

— ANSI / ANS 3.1 – 1978, "American National Standard for Selection and Training of Nuclear Power Plant Personnel" Applicable to Clinton (for non-licensed personnel), Limerick, Nine Mile Point Unit 1 and 2 (Chemistry Technicians), Oyster Creek, and TMI. Also, FitzPatrick sections 1 through 4 only, with exceptions (see 1.3.5 in this Appendix). For Clinton, Limerick, Nine Mile Point Unit 1 and 2, Oyster Creek, FitzPatrick, and TMI, Licensed Operators shall comply only with the requirements of 10 CFR 55.

— ANSI / ANS 3.1 – 1981, "Selection, Qualification and Training of personnel for Nuclear Power Plants" Applies to Peach Bottom (for SQRs) and LaSalle (for reactor engineers), and Clinton (for chemistry supervisors)

— ANSI N18.7 – 1976 / ANS 3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants" Applicable to Limerick, Oyster Creek, TMI, FitzPatrick, and Clinton Only

— ANSI N18.7 – 1972 "Administrative Controls for Nuclear Power Plants" Applicable to Peach Bottom Only

— ANSI / ANS 3.2 – 1988, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants" (Exception – Exelon will implement the requirements of 10 CFR 26 for control of work hours in lieu of

those specified in section 5.2.1.7 of this standard.) Applicable to Braidwood, Byron, Dresden, LaSalle, and Quad Cities Only

— ASME NQA-1 (1994) (Revision and Consolidation of ASME NQA-1-1989 and ASME NQA-2 1989 Edition) " Quality Assurance Requirements for Nuclear Facility Application's" Part I, "Basic Requirements and Supplementary Requirements for Nuclear Facilities, Part II, "Quality Assurance Requirements for Nuclear Facility Applications;" and Part III, "Nonmandatory Appendices," limited to Appendix 2A-1, "Nonmandatory Guidance on Qualifications of Inspection and Test Personnel," and Appendix 17A-1, Nonmandatory Guidance on Quality Assurance Records."

Exceptions: Exelon qualifies personnel in accordance with the applicable editions of the codes and standards accepted by the NRC as identified in Company NDE procedures and the Station ISI plans in lieu of SNT-TC-1A, June 1980, as specified in NQA-1, 1994, Supplement 2S-2.

As noted above, the plants in the Exelon Fleet comply with the ANSI standards associated with administrative controls and quality assurance for the operational phase of nuclear power plant operation. Each plant complies with their specific standards with the following exceptions:

The independent review of Technical Specification changes, license amendments, or Emergency Plan changes shall be performed by the PORC.

1.2 Regulatory Guides

Although the QAP complies with the regulatory positions and programmatic quality requirements of the Regulatory Guides identified in this section, the site-specific Clarifications and Exemptions identified in section 1.3 should always be verified by reviewing the applicable site specific Updated Safety Analysis Report (UFSAR).

— 1.8, "Personnel Qualification and Training."

— 1.26, "Quality Group Classification and Standards for Nuclear Power Plants."

— 1.28, "Quality Assurance Program Requirements for Design and Construction."

— 1.29, "Seismic Design Classification."

— 1.31, "Control of Ferrite Content in Stainless Steel Weld Material"

— 1.33, "Quality Assurance Program Requirements."
Exceptions: Audits will be at the frequency defined in Appendix B of this QATR and PORC review and approval of new or revised administrative procedures recommended by RG 1.33 is not required.

— 1.68, "Pre-Operational and Initial Start-Up Test Programs for Water Cooled Reactors."

— 1.142, "Safety Related Concrete Structures for Nuclear Power Plants."

— 1.143, "Design Guidance for Radioactive Waste Management SSCs Installed in Light Water-Cooled Nuclear Power Plants."

— 4.15 "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment

1.3. Site Specific Clarifications and Expectations

1.3.1. Limerick (LGS) and Peach Bottom Atomic Power Station (PBAPS)

1. Regulatory Guide 1.33, "Quality Assurance Program Requirements, (Operations)," endorses ANSI N18.7.

   LGS shall comply with Regulatory Guide 1.33, Revision 2, February 1978, and ANSI N18.7-1976/ANS-3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants" during the operational phase except for the following clarifications or alternatives.

   A. ANSI N18.7-1976/ANS-3.2, Section 5.2.2, Procedure Adherence – The term "supervisor in charge of the shift" means either the Shift Manager or Shift Supervisor.

   B. ANSI N18.7-1976/ANS-3.2, Section 5.2.7.1, Maintenance Programs:

      1. Emergency maintenance to safety-related equipment (work which must proceed immediately to correct a degraded condition) may be performed concurrent with procedure preparation and documentation of steps actually taken. Such maintenance may be performed with the authorization of designated personnel and subsequent procedure review by the PORC and / or SQR, per Technical Specification requirements.

      2. The cause of repetitive malfunction should be determined; however, it is not practical, and may not be possible, to determine the cause of every malfunction.

   C. ANSI N18.7-1976/ANS-3.2, Section 5.2.10, "Housekeeping and Cleanliness Control".

      1. Control measures to prevent contamination with foreign materials will be specified in administrative procedures and will include, as appropriate, access control.

      2. Second paragraph, first and second sentences are taken to mean: "Where needed to prevent contamination..."

   D. ANSI N18.7-1976/ANS-3.2, Section 5.2.13, "Procurement and Materials Control" – Item (1) – Administrative procedures shall specify the means for control of procurement of commercially "off-the-shelf" items. The administrative procedures shall describe the receipt inspection, storage, and handling prior to installation and operation.

Off-the-shelf (catalog) items are evaluated by qualified personnel for their intended use. The administrative procedures restrict the use of catalog items for only these evaluated applications. The purchase order shall require the vendor to notify the requisitioning organization of a change in an item described in the catalog.

E. ANSI N18.7-1976/ANS-3.2, Section 5.2.13.1, "Procurement Document Control," (second sentence) – QA Program requirements or alternate approved methods will be used to ensure quality. Examples of alternates for suppliers without QA programs include material analysis, sample testing, in-process inspection and monitoring, and design review by LGS/PBAPS.

F. ANSI N18.7-1976/ANS-3.2, Section 5.2.15, "Review, Approval, and Control of Procedures" – The frequency of review of plant procedures is discussed in UFSAR Section 13.5, except for the following alternative.

1. Programmatic controls and processes described in UFSAR Section 13.5 are used to assure that procedures are current. These controls take the place of scheduled periodic reviews.

G. Emergency / Abnormal procedures do not require biennial review based on the equivalent processes noted in NO-AA-10, Chapter 6, Section 2.1.

2. Regulatory Guide 1.143, Revision 1, October 1979, "Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light-Water-Cooled Nuclear Power Plants."

LGS shall comply with Regulatory Guide 1.143, Revision 1, October 1979, for major modifications, subject to the exceptions and clarifications listed in LGS UFSAR Table 3.2-1, Note 18.

3. ASTM D3843-93, "Standard Practice for Quality Assurance for Protective Coatings applied to Nuclear Facilities."

LGS/PBAPS shall comply with ASTM D3843-93 for safety-related protective coating work in service level 1 areas during operation with the following additional clarification, exception, and requirement.

A. For coating formulations developed prior to issuance of ASTM D3843-93, service level 1 qualification based on ANSI N5.9 (Revised as ANSI N512-1974) and ANSI N101.2 remains valid.

B. Section 10.1, last sentence – instead of references to ANSI 45.2 and NQA-1, inspections will be documented for record purposes as required by 10 CFR 50, Appendix B, and by this QA program description.

C. Limitations on use of coatings and cleaning materials which contain elements which could contribute to corrosion, inter-granular cracking, or stress corrosion cracking of safety-related stainless steel will be

followed as described in Section C.4 of Regulatory Guide 1.54, June 1973.

4. Branch Technical Position (BTP) CMEB 9.5-1:

   For modification work performed by Exelon Engineering during the operations phase, Exelon Engineering will maintain compliance with the requirements of CMEB 9.5-1 in accordance with Section 9.5.1.

5. NQA-1, 1994 Supplement 2S-2

   PBAPS will comply with NQA-1, 1995 Supplement 2S-2 except for the following clarification.

   A. NQA-1, 1995 Supplement 2S-2 states that SNT-TC-1A, June 1980 shall apply for personnel performing NDE. PDAPS personnel who perform ISFSI cask leak testing or approved ISFSI leak test procedures and test results and direct or supervise the conduct of ISFSI leak tests shall be qualified to either SNT-TC-1A or ANSI N18.1-1971.

6. Regulatory Guide 1.8, September 1975

   A. At Limerick, each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions, except for the Manager - Radiation Protection who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and the licensed operators who shall comply only with the requirements of 10 CFR 55.

   B. At PBAPS, each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1- 1971 for comparable positions described in the UFSAR, with the following exceptions: 1) the Manager-Radiation Protection shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.

   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).

1.3.2. Oyster Creek (OCNGS) and Three Mile Island (TMI) Stations

1. RG 1.8, Revision 1-R (May 1977), Personnel Selection and Training TMI and OCGS take the following Exceptions Clarifications.

   A. TMI:

      1. Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 of 1978 for comparable positions unless otherwise noted in the Technical Specifications, with the following exceptions: 1) the licensed operators who shall comply

only with the requirements of 10 CFR 55, and 2) individuals who do not meet ANSI/ANS 3.1 of 1978, Section 4.5, are not considered technicians or maintenance personnel for purposes of determining qualifications but are permitted to perform work for which qualification has been demonstrated.

2. The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 of 1977. Each radiological control technician/supervisor shall meet or exceed the qualifications of ANSI-N 18.1-1971, paragraph 4.5.2/4.3.2, or be formally qualified through an NRC approved TMI-1 Radiation Controls training program. All radiological controls technicians will be qualified through training and examination in each area or specific task related to their radiological controls functions prior to their performance of those tasks.

3. The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in unit design, response and analysis of transients and accidents.

B. OCNGS:

1. Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 of 1978 for comparable positions unless otherwise noted in the Technical Specifications, with the following exceptions: 1) the licensed operators who shall comply only with the requirements of 10 CFR 55, and 2) technicians and maintenance personnel who do not meet ANSI/ANS 3.1 of 1978, Section 4.5 are permitted to perform work for which qualification has been demonstrated.

2. The management position responsible for radiological controls shall meet or exceed the qualifications of Regulatory Guide 1.8 (rev. 1-R, 9/75). Each other member of the radiation protection organization for which there is a comparable position described in ANSI N18.1-1971 shall meet or exceed the minimum qualifications specified therein, or in the case of radiation protection technicians, they shall have at least one year's continuous experience in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power stations and shall have been certified by the management position responsible for radiological controls as qualified to perform assigned functions. This certification must be based on an NRC approved, documented program consisting of classroom training with appropriate examinations and documented positive findings by responsible supervision that the individual has

demonstrated his ability to perform each specified procedure and assigned function with an understanding of it basis and purpose.

3. The Shift Technical Advisors shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, response and analysis of the plant for transients and accidents.

2. Regulatory Guide 1.26, Quality Group Classification and Standards for Nuclear Power Plants, Rev 3 February 1976. TMI and OCGS will comply with this guide with the following exception:

   A. For modifications to existing plant systems, items will be classified by site engineering according to the original design basis, or this guide. This classification will not degrade the safety of the system being modified.

   B. Additions to existing plant systems will be designed and constructed to the same codes, standards, and technical requirements which were originally applied to the system to which the addition is to be made, or more recent versions of these codes, standards, and technical requirements. The addition will not degrade the safety of the system being added to.

   C. For new construction, the latest applicable codes will be utilized, unless such utilization would result in hardship or unusual difficulty without providing an equivalent level of safety.

3. Regulatory Guide 1.33, Rev. 2, February 1978, "Quality Assurance Program Requirements (Operation)."

   The stations comply with the Regulatory Position of this Guide with the following clarifications:

   A. Paragraph 5.2.2 of ANSI N18.7-1976, titled "Procedure Adherence." In accordance with Section 6.8.3 of the OCNGS and TMI Technical Specifications, temporary changes shall be approved by two members of the Company's management staff qualified as a 50.59 Evaluator/Reviewer who meets the qualification criteria of QATR Appendix G, Sections 2.2.1.14 and 2.3.1.14 and knowledgeable in the area affected by the procedure. For changes, which may affect the operational status of facility systems or equipment, at least one of these individuals shall be a member of facility management or supervision holding a Senior Reactor Operator's License on the facility.

   B. Paragraph 5.2.15 of ANSI N18.7-1976, titled "Review, Approval and Control of Procedures." The third sentence of the third paragraph is interpreted to mean that applicable procedures shall be reviewed following a reportable incident such as an accident, an unexpected transient, significant operator error, or equipment malfunction. In

addition, the fourth paragraph is modified to state that the periodic review of procedures shall include the following four elements:

a. At least every two years, Nuclear Oversight will assess a representative sample of plant procedures that used more frequently than every two years.

b. All applicable plant procedures will be reviewed as described in paragraph no. 5.2.15 of ANSI N18.7-1976 as per the noted clarification described for the third sentence of the third paragraph.

c. Plant procedures that have been used at least biennially receive scrutiny by individuals knowledgeable in procedures and are updated as necessary to ensure adequacy during suitable controlled activities.

d. Plant procedures that have not been used for two years will be reviewed before use or biennially to determine if changes are necessary or desirable.

4. Regulatory Guide 1.54, June 1973, "Quality Assurance Requirements for Protective Coatings Applied to Water Cooled Nuclear Power Plants."

The OCNGS and TMI QAP complies with this Guide with the following clarification:

A. The Company will comply with the Regulatory Position established in this Regulatory Guide in that programmatic/administrative quality assurance requirements included therein shall apply to maintenance and modification activities, even though such requirements were not in effect originally. Technical requirements associated with maintenance and modification (e.g., code requirement, material properties, design margins, manufacturing processes, and inspection requirements) shall be the original requirements or better.

B. The quality assurance program for protective coatings includes the planned and systematic actions necessary to provide adequate confidence that shop or field coating work for nuclear facilities will perform satisfactorily in service.

C. All protective coatings applied to surfaces within containment except those noted in 3 below, are tested to demonstrate that they can withstand LOCA conditions. These tests are performed in accordance with Section 4 of ANSI N101.2, "Protective Coatings (Paints) for Light Water Nuclear Reactor Containment Facilities," under LOCA conditions, which equal or exceed those described in the FSAR.

D. The quality assurance program is applied to protective coatings consistent with the nature and scope of work specified in the Technical Specifications. The following elements are included:

1. Preparation of coatings specifications and procedures for generic coating materials/systems.
2. Review and evaluation of coating manufacturers' demonstration test data and quality assurance measures for control of manufacture, identification, and performance verification of applied coating systems.
3. Review and evaluation of supplier quality assurance measures to control storage and handling, surface preparation, application, touch-up, repair, curing and inspection of the coating systems.
4. Training and qualification of inspection personnel in coatings inspection requirements.
5. Supplier surveillance inspection.

E. The coatings qualification program and the associated quality assurance requirements are necessary only for coatings whose failure or failure mechanism would have a significant effect on safety.

F. Regulatory Guide 1.54 is not imposed for:

1. Surfaces to be insulated.
2. Surfaces "contained" within a cabinet or enclosure (for example, the interior of ducts).
3. Field repair on any Q-class coated item of less than 30 square inches surface area, such as; cut ends or otherwise damaged galvanizing; bolt heads, nuts, and miscellaneous fasteners; and damage resulting from spot, tack, or stud welding.
4. Field touch-up and repair of larger areas shall be in accordance with item A.
5. Small "production line" items such as small motors, hand wheels, electrical cabinets, control panels, loudspeakers, etc., where special painting requirements would be impracticable.
6. Stainless steel or galvanized surfaces.
7. Coating used for the banding of piping.
8. Strippable coatings used for cleanup.

G. Quality assurance documentation may not be similar to records and documents listed in Sections 7.4 through 7.8 of ANSI N101.4, but will be evaluated to assure that they provide at least the same degree of documentation as required by this standard.

5. Regulatory Guide 1.123, Rev. 1, July 1977, "Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants."

The OCNGS and TMI QAP complies with this Guide with the following clarifications:

A. Section 4.2.a of ANSI N45.2.13-1976. When evaluation of a supplier is based solely on historical suppler data, these data will primarily include records that have been accumulated in connection with previous procurement actions. Data incudes experience of users of identical or similar products of the prospective supplier and product operating experience will be used if available.

B. Section 10.2.f, Verification of the Validity of Supplier Certificates and the Effectiveness of the Certification System, is as follows: The verification of the validity of supplier certificates and the effectiveness of the certification system are accomplished as an integral part of the total supplier control and product acceptance program, and no separate Company system exists that addresses itself solely to such verification. The degree of verification required will depend upon the type of item or service and their safety importance. The means of verification may include source witness/hold points, source audits, and document reviews; independent inspections at the time of material receipt; user tests on selected commodities, such as concrete components; and tests on selected components and systems after installation. All of these means verify whether or not a supplier has fulfilled procurement document requirements and whether or not a certification system is effective.

6. Regulatory Guide 1.142, October 1981, "Safety-Related Concrete Structures for Nuclear Power Plants (Other Than Reactor Vessels and Containments)."

   A. The Company shall comply with the Regulatory Position established in the Regulatory Guide as augmented by ANSI N45.2.5, ANSI/ANS 6.4-1977, and ANSI/ACI 318-77 for the design and construction of new Safety-Related or Augmented Quality structures and additions to existing Safety Related or Augmented Quality structures. Inspectors will be qualified according to either ANSI N45.2.6 or Appendix VII of Section III, Division 2, of the ASME Boiler and Pressure Vessel Code.

7. Regulatory Guide 1.143, October 1979, "Design Guidance for Radioactive Waste Management Systems, Structures and Components Installed in Light-Water-Cooled Nuclear Power Plants."

   Since OCNGS and TMI were originally designed and constructed to different classification criteria than those contained in this Guide; the Company will comply with the Regulatory Position of this Guide with the following clarifications:

   A. For modifications to existing plant systems, items will be classified by Site Engineering according to the original design basis, or this Guide.

This classification will not degrade the safety of the system being modified.

B. Additions to existing plant systems will be designed and constructed to the same codes, standards, and technical requirements which were originally applied to the system to which the addition is to be made, or more recent versions of these codes, standards, and technical requirements. The addition will not degrade the safety of the system being added to.

C. For new construction, the latest applicable codes will be utilized, unless such utilization would result in hardship or unusual difficulty without providing an equivalent level of safety.

D. Hose may be used in lieu of pipe where the connections are temporary. The anticipated applications of hose would normally be (1) connection to contractor owned skid mounted radioactive waste processing equipment, (2) connections to a non-mounted, frequently-changed component such as a burial liner/HIC, or (3) connection to non-mounted pieces of radioactive waste processing or collection equipment which must be readily removable (e.g., items placed on equipment hatches). The pressure rating of such hoses and connections shall equal or exceed those of the systems or components to which they are connected.

1. Prior to use, the hoses shall be hydro-tested to the appropriate pressure for the system or component to which they will be connected. After installation, they will receive regular hydro-testing or in-service inspections.

2. A 50.59 review process is required to justify the use of such hose connections.

1.3.3. Clinton Power Station (CPS)

1. The CPS QAPD also includes the following section of the Operations Requirements Manual (ORM) and the Updated Safety Analysis Report (USAR). The specific section are as follows:

   A. ORM Section 6.8.2, Procedures and Programs – Review and Approval

   B. ORM Section 6.8.3, Procedures and Programs – Temporary Changes

   C. USAR Section 13.4

   D. USAR Table 3.2-1

2. Site specific clarification and exceptions applicable to Clinton Power Station include:

A. The CPS USAR Section 1.8, "Conformance to NRC Regulatory Guides", which provides the CPS project position for implementation of regulatory guides.

B. CPS complies with RG 1.8 (Proposed Rev 2), "Personnel Qualification and Training." (Also reference USAR Section 1.8.)

1. Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1 - 1978, with the following exception: the licensed operators who shall comply only with the requirements of 10 CFR 55.

C. CPS complies with Regulatory Guide 1.33, Rev. 2 (February 1978); "Quality Assurance Program Requirements (Operation)." CPS complies with this guide and with the following additional exception:

1. ANSI N18.7-1976/ANS-3.2, Section 5.2.17 Inspections: During plant operations emergencies, inspections may be performed under the direction of the duty shift manager.

1.3.4. Calvert Cliffs, Ginna, and Nine Mile Point

1. Regulatory Guide 1.16, (revision facility – specific), "Reporting of Operating Information" – The Commitment to this Regulatory Guide is facility-specific as described in the approved Safety Analysis Report (SAR) or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the facility specific SAR.

2. Regulatory Guide 1.26, Revision (facility-specific), "Quality Group Classifications and Standards for Water-Steam-and Radioactive Waste-Containing Components of Nuclear Power Plants" – Commitment to Safety/Regulatory Guide 1.26 is facility-specific, as required by the approved SAR/License at each nuclear facility. Sites may use this guidance to assist in establishing the lists of equipment to which this QA program applies, or for other purposes.

3. Regulatory Guide 1.28, Revision 3, August 1985, "Quality Assurance Program Requirements (Design and Construction)" (ASME NQA-1, 1983a) – Calvert Cliffs, Nine Mile Point, and Ginna will implement the requirements and guidance of the standard and Regulatory Guide during the design and construction phases of the facilities subject to the following:

A. Regulatory Position C endorses the basic and supplementary requirements of ANSI/ASME NQA-1-1983 and the ANSI/ASME NQA-1a-1983 Addenda. In place of the specific edition and addenda of NQA-1 addressed in the Regulatory Guide, Calvert Cliffs, Nine Mile Point, and Ginna commit to implement the requirements of NQA-1-1994 Part 1. Calver Cliffs, Ginna, and Nine Mile Point are not committed to Part II of NQA-1 unless otherwise noted. The

commitment to these requirements and any exceptions/alternatives to these requirements are addressed in this QATR.

4. In establishing qualification and training programs, Calvert Cliffs, Ginna, and Nine Mile Point commits to compliance with NQA-1-1994 Basic Requirement 2 and Supplements 2S-1, 2S-2, 2S-3, and 2S-4, with the following alternatives and exceptions:

   A. For Supplement 2S-1: Inspections, examinations or tests may be performed by individuals in the same organization as that which performed the work, provided that (a) the qualifications of the inspector for an activity are the same as the minimum qualifications for persons performing the activity, (b) the work is within the skills of personnel and/or is addressed by procedures, and (c) if work involves breaching a pressure-retaining item, the quality of the work can be demonstrated through a functional test. When a, b, and c are not met, inspections, examinations or tests are carried out by individuals certified in accordance with Supplement 2S-1. Individuals perform visual inspections required by the ASME Boiler and Pressure Vessel Code are qualified and certified according to code requirements.

   B. In lieu of being certified as Level I, II, III in accordance with Non-Mandatory Appendix 2A-1 of NQA-1-1994, personnel performing operation phase independent quality verification inspections, examinations, measurements, or tests on material, products or activities that are in the same organization as that which performed the work, will be required to possess the same minimum level of qualification as that required for performing the task being verified. The verification shall be within the skills of these personnel and/or is addressed by procedures. These individuals will also be trained and certified to perform inspections in a manner consistent with a Level 1 quality inspector. The inspectors will be authorized to accept or reject the work being inspected. The results of inspections by these individuals will be reviewed by a certified Level II or higher quality inspector. These individuals will not be responsible for the planning of quality verification inspections and tests (i.e. establishing hold points and acceptance criteria in procedures, or determining who will be responsible for performing the inspections), evaluating inspection training programs, or certifying inspection personnel.

5. Regulatory Guide 1.29, Revision (facility-specific) "Seismic Design Classification" – Calvert Cliffs, Nine Mile Point, and Ginna may have been designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. The specific design criteria and seismic designations are reflected in each plant's SAR, and in other docketed analysis. This, the commitment to Safety/Regulatory Guide 1.29 is facility-specific, as required by the approved SAR/License at each facility. Sites may use this guidance in establishing the lists of equipment to which this QA program applies, or for other purposes.

6. Regulatory Guide 1.30, August 1972, "Quality Assurance Requirements for the Installation, Inspection and Testing of Instrumentation and Electric Equipment," (ANSI N45.2.4-1972/IEEE336-1971):

   A. Calvert Cliffs, Nine Mile Point, and Ginna commits to ANSI N45.2.4-1972/IEEE 336-1971 in its commitment to Position C of Regulatory Guide 1.30.

   B. As noted in Regulatory Position C.1 ANSI N45.2.4-1972 is being used in conjunction with NQA-1-1994, Part 1, which replaced ANSI N45.2.

   C. As noted in Regulatory Position C.2, other industry standards may be referenced. The commitment in this QATR to ANSI N45.2.4-1972 includes commitment to those standards to the extent necessary to implement ANSI N45.4-1972 requirements. If NRC guidance applies to those referenced standards, it is followed.

   D. Consistent with Regulatory Position C.3, the requirements of the endorsed standard are also considered applicable during the operation phase of the nuclear power plant.

   E. In lieu of the requirements of the last paragraph of ANSI N45.2.4-1972 Section 6.2.1, the calibration program at Calver Cliffs, Nine Mile Point, and Ginna does not use calibration stickers on installed plant instrumentation that contain the date of calibration and identity of person that performed the calibration. Calibrations of instruments are scheduled and tracked by computer database.

7. Regulatory Guide 1.33, Revision 2, February 1978, "Quality Assurance Program Requirements (Operation)" (ANSI N18.7-1976/ANS-3.2):

   A. NQA-1-1994 Part 1 contains quality assurance requirements equivalent to those of ANSI N18.7-1976/ANS-3.2. Although this QATR complies with the requirements of NQA-1-1994 and ANSI N18.7-1976/ANS-3.2, Calvert Cliffs, Ginna, and Nine Mile Point does not commit to compliance with the requirements of ANSI N-18.7/ANS-3.2 as defined in their Safety Evaluation Report dated December 21, 2006.

   B. As recommended by Regulatory Position C.1, Calvert Cliffs, Nine Mile Point, and Ginna uses Appendix A of Regulatory Guide 1.33, Revision 2, as guidance in establishing the types of procedures required for plant operation and support.

   C. Calvert Cliffs, Nine Mile Point, and Ginna's commitment to the applicable Regulatory Guides and associated standards listed in Regulatory Position C.2 is addressed within this QATR. A number of these Regulatory Guides and standards have been incorporated into NQA-1-1994 Part 1.

8. Regulatory Guide 1.37, Revision (facility-specific), "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated

Components of Water-Cooled Nuclear Power Plants," (ANSI N45.2.1-1973) – The commitment to this Regulatory Guide is facility-specific as descried in the approved SAR or License for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

9. Regulatory Guide 1.38, Revision (facility-specific), "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of items for Water-Cooled Nuclear Power Plants," (ANSI N45.2.2-1972)- The commitment to this Regulatory Guide is facility-specific as described in the approved SAR or License for each Nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

   A. This alternative applies to Nine Mile Point Nuclear Station (NMPNS). NMPNS commits to ANSI/ASME NQA-2-1983 Part 2.2, "Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants," for nuclear safety-related activities pertaining directly to permanent plant modifications only. NQA-2-1983 Section 7.1 refers to NQA-2-1983 Part 2.15 for requirements related to handling of items. The scope of Part 2.15 includes hoisting, rigging, and transporting of items for nuclear power plants. This scope exceeds the scope of the NRC original endorsement of ANSI N45.2.2 in Regulatory Guide 1.38, and establishes requirements for which there is no NRC regulatory position. In lieu of compliance with Part 2.15, NMPNS is committed to the requirements of applicable heavy load reports for Nine Mile Point Units 1 and 2 that have been approved by the NRC. Unit 2's report is a part of the SAR (Appendix 9C). Unit 1's is a separate report.

10. Regulatory Guide 1.39, Revision 2, September 1977, Housekeeping Requirements for Water-Cooled Nuclear Power Plants," (ANSI N45.2.3-1973) – Calvert Cliffs, Nine Mile Point and Ginna substitutes NQA-1-1994, Subpart 2.3 for N45.2.3 in its commitment to Regulatory Guide 1.39. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, subpart 2.3 includes commitment to those standards to the extent necessary to implement Subpart 2.3 requirements. If NRC guidance applies to those referenced standards, it is followed. Regulatory Position C.2 indicates that the provisions of section 3.2.3 of N45.2.3 are not part of the regulatory endorsement. As NQA-1, Subpart 2.3, section 3.2.3 has the same wording as N45.2.3; the Regulatory Position is applicable and will be followed in Calvert Cliffs, Nine Mile Point, and Ginna's implementation of Subpart 2.3. Regulatory Position C.3 indicates that the endorsed standard is "applicable for housekeeping activities during the operations phase that are comparable to those occurring during construction." This

is addressed in appendix C of this QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.3.

A. In lieu of the five-level zone designated in Subpart 2.3, Calvert Cliffs, Ginna, and Nine Mile may base its control over housekeeping activities on a consideration of what is necessary and appropriate for the activity involved. The controls are effected through procedures or instructions. Factors considered in developing the procedures and instructions include cleanliness control, personnel safety, fire prevention and protection, radiation control and security. The procedures and instruction make use of standard janitorial and work practices to the extent possible.

11. Regulatory Guide 1.54, revision (facility-specific), "Quality Assurance for Protective Coatings Applied to Nuclear Power Plants" (N101.4-1972) – The commitment to this Regulatory Guide is facility-specific as described in the approved SAR or Licensed for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

12. Regulatory Guide 1.68, Revision (facility-specific), "Preoperational and Initial Startup Test Programs for Water-Cooled Power Reactors," – The commitment to this Regulatory Guide is facility-specific as described in the approved SAR or Licensed for each nuclear facility. Where items do not conform to the requirements of the Regulatory Guide, they are addressed in the applicable facility's SAR.

13. Regulatory Guide 1.94, Revision (facility-specific), "Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants," (ANSI N45.2.5-1974) – Calvert Cliffs, Nine Mile Point and Ginna may have been designed, constructed and licensed based on criteria available prior to this Regulatory Guide being issued. The specific installation, inspection, and testing criteria are reflected in each plant's SAR, and in other docketed analysis. Thus, the commitment to Regulatory Guide 1.94 is facility-specific, as required by the approved SAR/License at each facility. Facilities may use this guidance to assist in establishing the equipment to which this QA program applies, or for other purposes.

14. Regulatory Guide 1.116, Revision 0-R, May 1977, "Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems," (ANSI N45.2.8-1975) – Calvert Cliffs, Nine Mile Point, and Ginna substitutes NQA-1-1994, Subpart 2.8 for N45.2.8 in its commitment to Regulatory Guide 1.116. As noted in Regulatory Position C.1, other industry standards may be referenced; the commitment in this QATR to NQA-1, Subpart 2.8 includes commitment to those standards to the extent necessary to implement Subpart 2.8 requirements. If NRC guidance applies to those referenced standards, it

is followed. Regulatory Position C.2 indicates that the endorsed standard should be "followed for those applicable operations phase activities that are comparable to activities occurring during the construction phase." This is addressed in Appendix C of this QATR, which also establishes any necessary exceptions or alternatives to the provisions of Subpart 2.8.

15. Regulatory Guide 1.143, revision (facility-specific), "Design Guidance for Radioactive Waste Management Systems, Structures and Components Installed in Light-Water-Cooled Nuclear Power Plants" Commitment to Regulatory Guide 1.143 is Facility-specific as required by the approved SAR at each facility. Facilities may use this guidance to assist in establishing the equipment to which this QA program applies, or for other purposes.
16. Regulatory Guide 1.152, Revision 0, November 1985, "Criteria for Programmable Digital Computer System Software in Safety-Related Systems of Nuclear Power Plants" – Calvert Cliffs, Nine Mile Point and Ginna does not make a commitment to Regulatory Guide 1.152. Calvert Cliffs, Nine Mile Point and Ginna commit to Generic Letter 95-02, and its endorsement of NUMARC/EPRI Report TR-102348, : Guiltiness on Licensing Digital Upgrades."
17. Generic Letter 89-02/EPRI-NP-5652 (June 1988) - Calvert Cliffs, Nine Mile Point and Ginna commits to compliance with the endorsed industry guidance regarding selection and qualification of commercial grade suppliers and dedication of commercial grade items for use in safety-related applications.
18. Nine Mile Point 2 is committed to the guidance in Appendix A to Branch Technical Position APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July1, 1976." However, application of the requirements is facility-specific as described in the applicable facility SAR, Fire Protection Program, and License documents.
    A. Nine Mile Point Unit 1 is committed to 10 CFR 50.48(c), National Fire Protection Association Standard NFPA 805, "Performance Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" 2001 Edition per NRC license Amendment number 215 to DPR-63 (ADAMS Accession number ML14126A003) dated 6/30/2014.
    B. Ginna is committed to 10 CFR 50.48(c), National Fire Protection Association Standard NFPA 805, "Performance Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" 2001 Edition per NRC license Amendment number 119 to DPR-18 (ADAMS Accession number ML15271A101) dated 11/23/2015.

C. Calvert Cliffs is committed to 10 CFR 50.48(c), National Fire Protection Association Standard NFPA 805, "Performance Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" 2001 Edition per NRC license Amendment number 318 to DPR-53 and 296 to DPR-69 (ADAMS Accession number ML16175A359) dated 08/30/2016

19. Regulatory Guide 4.15, Revision 1, February 1979, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment" - Calvert Cliffs, Nine Mile Point and Ginna commits to compliance with the Regulatory Positions of Section C with the following alternatives/exceptions:

    A. In lieu of platting back round parameters and setting predetermined control values for gamma spectroscopy instrumentation as described in Regulatory Position C.6.2, background results may be logged and evaluated to ensure the background does not bias reported results.

    B. The NRC's independent sampling and analysis program described in Regulatory Position C.6.3.2 may not be performed.

    C. In lieu of performing source check calibrations at least once per 18 months as described in Regulatory Position C.7, Calvert Cliffs, Nine Mile Point and Ginna may perform these calibrations at least once per refueling interval.

20. Regulatory Guide 7.10, Revision 1, June 1986, "Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material" - Calvert Cliffs, Nine Mile Point and Ginna commits to implement the quality assurance guidance for activities related to the packaging and transport of radioactive material that are under its control. Quality Assurance for the design, fabrication and licensing of shipping containers is the responsibility of the container certificate holder.

21. Regulatory Issue Summary 2000-18, October 2000, "Guidance on Managing Quality Assurance Records in Electronic Media" – Should Calvert Cliffs, Nine Mile Point and Ginna choose electronic media storage as a means of maintaining required records, they will comply with the guidance of this Regulatory Issue Summary.

22. Calvert Cliffs, Nine Mile Point and Ginna will use the guidance contained in Generic Letters 91-05 and 89-02/EPRI NP-5652 to procure commercial grade items in lieu of these requirements NQA-1-1994 Supplement 4S-1 and Supplement 7S-1.

23. Independent Safety Engineering Group (ISEG)

    Independent safety review is performed to meet the individual unit's commitment to NUREG-0737, Section I.B.1.2, "Independent Safety Engineering Group," as described in the unit's safety analysis report, if applicable.

24. Regulatory Guide 1.8

- At Calvert Cliffs, each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971, for comparable positions, except for the Radiation Protection Manager, who shall meet or exceed the requirements of Regulatory Guide 1.8, September 1975, and the Shift Technical Advisor, who shall meet the requirements of Specification 5.2.2.g.
- At Ginna, each member of the plant staff shall meet or exceed the minimum qualifications of ANSI Standard N18.1-1971, as supplemented by Regulatory Guide 1.8, Revision 1, September 1975, for comparable positions.
- At Nine Mile Point Unit 1, each member of the unit staff, with the exception of the operator license applicants and the radiation protection manager, shall meet or exceed the minimum qualifications of ANSI N18.1- 1971 for comparable positions. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. The education and experience eligibility requirements for operator license applicants, and changes thereto, shall be those previously reviewed and approved by the NRC; specifically, those referenced in letter NMP1L 2184, dated December 20, 2007, and described in applicable station training procedures.

  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).
- At Nine Mile Point Unit 2, each member of the unit staff, with the exception of the operator license applicants and the radiation protection manager, shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. The education and experience eligibility requirements for operator license applicants, and changes thereto, shall be those previously reviewed and approved by the NRC; specifically, those referenced in letter NMPIL 2184, dated December 20, 2007, and described in applicable station training procedures.

1.3.5. FitzPatrick

1. Regulatory Guide 1.8, Revision 1, September 1975

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

   - The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, Revision 2, 1987.
   - Managers required to hold SRO license are specified in the applicable unit's Technical Specifications.
   - Licensed Operators shall be qualified in accordance with the requirements of 10 CFR 55. 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).
   - 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 requirement of this commitment for that position without further review and documentation.
   - 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.

   B. The following qualifications may be considered equivalent to a bachelor's degree 4 years of post-secondary schooling in science or engineering:

   - 4 years of applied experience at a nuclear facility in the area for which qualifications is sought,
   - 4 years of operational or technical experience/training in nuclear power, or
   - 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.

2. Regulatory Guide 1.33, Revision 2, February 1978

FitzPatrick will provide procedures for the guide's Appendix A activities as discussed. However, does not consider all activities listed to be "safety-related."

1.3.6. Braidwood and Byron

1. Regulatory Guide 1.8 September 1975

   Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971, with the following exceptions: 1) either the senior health physics supervisor or lead health physicist, shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.

1.3.7. Dresden

1. Regulatory Guide 1.8 September 1975

   Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971, with the following exceptions: 1) the radiation protection manager shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.

1.3.8. LaSalle

1. Regulatory Guide 1.8, September 1975

   Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1- 1971, with the following exceptions: 1) the radiation protection manager shall meet the requirements of "radiation protection manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55. Also, the ANSI N18.1-1971 qualification requirements for "radiation protection technician" may be met by either of the following alternatives:

   - Individuals who have completed the radiation protection technician training program and have accrued one year of working experience in the specialty; or
   - Individuals who have completed the radiation protection technician training program, but have not yet accrued one year of working experience in the specialty, who are supervised by on-shift radiation protection supervision who meet the requirements of ANSI N18.1-1971, Section 4.3.2 or Section 4.4.4.

1.3.9. Quad Cities

1. Regulatory Guide 1.8, September 1975

Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971, with the following exceptions: 1) the radiation protection manager or lead radiation protection technician who shall meet or exceed the qualifications for "Radiation Protection Manager" in Regulatory Guide 1.8, September 1975, and 2) the licensed operators who shall comply only with the requirements of 10 CFR 55.