

# **Hope Creek Generating Station**

## **UFSAR / Exelon QATR**

### **Line-By-Line Review**

**(For Reference Only)**

**Prepared By Nuclear Oversight**

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR No. (Rev. 15, 14)</b>	17.2 Quality Assurance During the Operations Phase.	<b>QATR Chapter No. (Rev. 76)</b>	Policy Statement and Applicability
<b>UFSAR Text</b>		<b>Disposition</b>	
Public Service Electric and Gas Company (PSE&G) is responsible for assuring that the operation, maintenance, refueling, and modification of the nuclear generating stations are accomplished in a manner that protects public health and safety and that is in compliance with applicable regulatory requirements.		This section of the UFSAR should remain as written in the site-specific QATR (if not merged). This is part of the company "Policy Statement."	
To carry out this responsibility, PSE&G developed and implemented a comprehensive Quality Assurance Program that was applicable to the design, construction, and testing phases and is now applied to the operation phase.		This section of the UFSAR should remain as written in the site-specific QATR (if not merged). This is part of the company "Policy Statement."	
On August 21, 2000, the operating license for the Hope Creek station was transferred from PSE&G to PSEG Nuclear LLC.		This section of the UFSAR should remain as written in the site-specific QATR (if not merged). PSEG Nuclear, LLC, is here after named "The Company." This is part of the company "Policy Statement."	
The Operational Quality Assurance Program is described in the Nuclear Administrative Procedures Manual. This manual establishes and documents the programs and processes that implement the QA Program.		(Chapter 2, Paragraph 2.4.) The Company's total program for providing administrative controls and quality assurance is incorporated in many diverse documents. The Company's nuclear document hierarchy describes the implementation of the QAP. Approved implementing procedures and instructions are written to the extent necessary to implement the quality requirements of 10CFR50 Appendix B.	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Discussion: The Operational Quality Assurance Program is synonymous with QAP as defined in QATR Appendix D. The Exelon equivalent to the NAP Manual is the nuclear document hierarchy and “AD” Platform procedures. The OQAP can be referred to as the Quality Assurance Program (QAP) and the NAP manual should be generically stated as “Company procedures.”</p>
<p>The QA program provides measures to assure the control of activities affecting the quality of structures, systems, and components (SSC) (that is, SSC that provide reasonable assurance that facilities can be operated without undue risk to the health and safety of the public), to an extent consistent with their importance to safety.</p>	<p>This section of the UFSAR should remain as written in the site-specific QATR (if not merged). This is part of the company “Policy Statement.”</p>
<p>The QA Program is also applied to activities affecting the quality of ITS SSC of the 10CFR72 Dry Cask Storage System and Independent Spent Fuel Storage Installation, as provided in 10CFR72.140(d) and described in Section 17.3.</p>	<p>This section of the UFSAR should remain in the site-specific QATR (if not merged). Add/ensure this or similar text is included in a site-specific appendix that includes Dry Cask Storage elements. Dry Cask Storage has been included in Appendix A and Appendix E of the QATR.</p>
<p>The Quality Assurance Program encompasses fire protection of safety-related areas and other activities enumerated in Regulatory Guide 1.33.</p>	<p>This section of the UFSAR can be deleted. Add/ensure this text is included in site-specific appendix that includes Fire Protection elements. Ensure RG 1.33 is appropriately reference in QATR Appendix C.</p>
<p>A Planned Audit, Performance Based Assessment, and Quality Verification Inspection programs assures effective implementation of the Operational Quality Assurance Program.</p>	<p>This section of the UFSAR can be optionally retained as written. These programs are generically linked to implementing documents, company procedures, policies, and programs. The OQAP is synonymous with the QAP as stated in QATR Appendix D. Blend this statement with existing QATR wording.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>A performance-based assessment is a direct observation of activities and review of documentation to verify compliance/conformance to specified requirements and effectiveness of processes.</p>	<p>This section of the UFSAR should remain as written and added to the definition section of the site-specific QATR. Note: As part of the challenge with Exelon it was decided that assessments are appropriately described in Chapter 18 of the QATR and no further action is required. This paragraph can be deleted.</p>
<p>The program provides coordinated and centralized quality assurance direction, control, and documentation as required by Nuclear Regulatory Commission (NRC) criteria set forth in 10CFR50, Appendix B.</p>	<p>This section of the UFSAR can remain in the site-specific QATR. Blend this statement with existing QATR wording.</p>
<p>The program provides for monitoring, assessing and auditing elements of the Fitness-For-Duty (FFD) Program as set forth in 10CFR26 and is applied to, and includes non Q-list (i.e. balance of plant) activities and services necessary to achieve safety, reliability, availability, and economy in the operation of the Hope Creek Generating Station.</p>	<p>This sentence is redundant to elements already contained within the QATR: therefore it can be deleted. The FFD program is monitored, assessed, and audited within the bounds of the program as delineated in Chapter 18 and Appendix B in the Exelon QATR. Balance of plant activities is redundant to QATR Appendix A and other site-specific appendices.</p>
<p>Applicable NRC Regulatory Guides, codes, and standards, as well as the policy statements contained in the Nuclear Administrative Procedures Manual, are used by PSEG Nuclear LLC organizations performing activities affecting safety to prepare appropriate implementing procedures.</p>	<p>Chapter 2, Paragraph 2.4.) The Company's total program for providing administrative controls and quality assurance is incorporated in many diverse documents. The Company's nuclear document hierarchy describes the implementation of the QAP. Approved implementing procedures and instructions are written to the extent necessary to implement the quality requirements of 10CFR50 Appendix B.</p> <p>Discussion: The Exelon equivalent to the NAP Manual is the nuclear document hierarchy and "AD" Platform procedures that provides administrative controls. The NAP manual should be generically stated as "Company procedures." This section should be generically rewritten Blend this statement with existing QATR wording.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>To assess the effectiveness of the PSEG Nuclear LLC Quality Assurance Program, independent auditors from outside the company audit the program every 2 years for compliance with 10CFR50, Appendix B, and other regulatory commitments. Reports of such audits are made directly to upper management.</p>	<p>This paragraph is redundant to QATR Chapter 2 Paragraph 2.6, Chapter 18, and Appendix B which explains and schedules the 2-year independent assessment of the company's QAP activities and program. Reports are made directly to the upper tier of corporate management. Delete this paragraph in favor of the existing elements contained within the QATR.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Quality Assurance (QA) policy statements are issued by key management representatives, including the Senior Vice President and Chief Nuclear Officer (SVP/CNO).</p>	<p>This section of the UFSAR should remain as written (if not merged) in the site-specific QATR and is supported in Chapter 1. The Vice President and Chief Nuclear Officer (SVP/CNO) is functionally supported in Chapter 1. This is part of the company "Policy Statement."</p>
<p>These policy statements are mandatory throughout the Company for nuclear facilities. Key policy elements, as they apply to nuclear safety, include the following:</p> <ol style="list-style-type: none"> <li>1. Nuclear safety is of the highest priority and shall take precedence over matters concerning power production.</li> <li>2. The public's health and safety is the prime consideration in the conduct and support of PSEG Nuclear's operations and shall not be compromised. All decisions, which could affect the health and safety of the public, shall be made conservatively.</li> </ol> <p>The Operational Quality Assurance Program is an essential part of the PSEG commitment to safe and reliable nuclear power operation. Applicable program requirements shall be strictly adhered to in the performance of activities covered by the Operational Quality Assurance Program.</p>	<p>This section of the UFSAR should remain as written (if not merged) in the site-specific QATR. PSEG Nuclear should be generically named "The Company" and the OQAP the QAP. This is part of the company "Policy Statement."</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>PSEG Nuclear requires its suppliers and contractors to assume responsibility for establishing and implementing Quality Assurance (QA) programs, as applicable, to meet 10CFR50, Appendix B. However, responsibility for the overall QA program is retained and exercised by PSEG Nuclear.</p>	<p>This section of the UFSAR is redundant to the requirements for a supplier QA program and controls established in QATR Chapters 2, 4, and 7; therefore it can be deleted. PSEG Nuclear should be generically named "The Company."</p>
<p>Nuclear Oversight Vendor Assessors review those programs and conducts appropriate monitoring and auditing as required to assure that the suppliers are properly implementing their QA programs.</p>	<p>This text is redundant to the requirements and function of NOVA already stated in Chapters 1,2, and 18; therefore it can be deleted. This text should be deleted in favor of those statements already contained within the Exelon QATR</p>
<p>The Operational QA Program verifies that requirements necessary to assure quality are properly included or referenced in procurement documents. In addition, these suppliers' procurement documents include applicable PSEG quality assurance requirements for items and services provided by their suppliers.</p>	<p>This text is redundant to the requirements of Chapters 4 and 7 for procurement and Chapter 18 and Appendix B for auditing procurement activities; therefore it can be deleted. This text should be deleted in favor of those statements already contained within the Exelon QATR</p>
<p><b>Documents</b></p>	
<ol style="list-style-type: none"> <li>1. AD-AA-1, "Document Usage and Administration."</li> <li>2. AD-AA-10, "Administrative Program Description."</li> <li>3. AD-AA-101, "Processing of Procedures and T&amp;RM."</li> <li>4. AD-AA-101-1002, "Writers Guide for Procedures."</li> <li>5. AD-AA-104-101, "Procedure Use and Adherence."</li> <li>6. Exelon QATR, Revision 76, Policy Statement, Applicability, and Chapters 1 &amp; 2.</li> <li>7. Hope Creek UFSAR Section 17.2.</li> <li>8. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</li> <li>9. Standard Review Plan SRP 17.2.</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<b>Analysis</b>				
<ol style="list-style-type: none"> <li>1. A general Company Policy Statement is included in the QATR and in the HCGS USFAR. The policy statement should be rewritten to include generic statements for some of the naming conventions used in the UFSAR text and to take advantage of some commonalities between the two programs. Also, there are some statements that are redundant to requirements already contained within the Exelon QATR that should not be restated in the Policy/Applicability section in the site-specific QATR.</li> <li>2. Administrative changes need to be made to the UFSAR proper transition (see below).</li> <li>3. The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).</li> </ol>				
<b>Reduction in Commitment?</b>	<b>Yes</b>	<input type="checkbox"/>	<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
<ol style="list-style-type: none"> <li>1. Align the PSEG text as stated in UFSAR 17.2 to be less redundant to the program and more generic in the QATR naming conventions.</li> <li>2. Write a policy statement using existing PSEG wording, with generic modifications.</li> <li>3. This will conform to the methodology as approved in the Exelon QATR and the associated Safety Evaluation Report.</li> </ol> <p>All Actions Completed and included in NO-SH-10.</p> <p>Re-Review Completed By" W. M. Eckman – 07/2//07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/12/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No.</b> (Rev. 15, 13, 14)  <b>Note: The site UFSAR uses a page level revision system.</b>	17.2.1. – Organization	<b>Chapter No.</b> (Rev. 76)  <b>Note: The QATR uses a volume level revision system.</b>	1 – Organization
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>17.2.1 <u>Organization</u></p> <p>The Operational QA Program, referred to hereafter as the QA Program, assures that adequate administrative and management controls are established for the safe operation of the station.</p>		<p>(2.1.) The organizational structure of the Company consists of corporate functions, and the nuclear facilities. Organizational titles for the quality assurance functions described are identified in Company policies and procedures. Lines of authority and responsibility are established from the highest management level through intermediate levels to the implementing personnel. The responsibility, authority, and relationships of the various personnel and organizations are documented and maintained current. The authority to accomplish the quality assurance functions described herein may be delegated to the incumbent's staff as necessary to fulfill the identified responsibilities.</p> <p>(2.2.3.) The President and Chief Nuclear Officer (CNO) reports to the President of Exelon Generation and has overall responsibility for the safe and reliable operation of the Company's nuclear stations.</p> <p>Discussion: The Operational QAP is defined in QATR Appendix "D" and is synonymous with the QATR definition. The QATR uses generic functional descriptions for company staff member positions below the CEO, President and CNO (Exelon), the President and CNO (AmerGen, and the Chief Operating Officer (COO). The applicable functions and statements contained within HCGS UFSAR 17.2.1 should be transferred to a site-specific QATR and generically modify as necessary to conform to the methodology used to create Chapter 1 of the Exelon QATR. There are no organizational charts maintained as part of the QATR.</p>	



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Recommendation: It is recommended that the current organizational structure and functions be maintained as part of a Salem and Hope Creek QATR until such time as the proposed merger between Exelon and PSEG is approved.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Implementation is assured by ongoing review, audits, performance based assessments, and quality verification inspections under the direction of the Director-Nuclear Oversight (NOS) who reports to the Nuclear Assessment Vice President.</p>	<p>(2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization.</p> <p>(2.2.3.3.A.) Reporting to the management position responsible for NOS is a management position responsible for performance assessment activities at the sites.</p> <p>(2.2.3.3.B.) Also reporting to the management position responsible for NOS is a management position responsible for auditing and programs.</p> <p>(2.3.6.) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment.</p> <p>Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Approving the agenda, checklist, findings, and report of each assessment.</li> <li>– Conducting independent assessments of line and support activities and safety reviews.</li> <li>– Quality verification inspections.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Company organization is shown on Figures 13.1-1 through 13.1-4 and 17.2-1. Responsibilities for activities affecting safety are described in the following sections.</p>	<p>(2.1.) The organizational structure of the Company consists of corporate functions, and the nuclear facilities. Organizational titles for the quality assurance functions described are identified in Company policies and procedures.</p> <p>Conclusion: Lead in sentence, not a requirement. The QATR maintains no charts of the organization. Company positions and responsibilities are generically stated.</p>
<p>17.2.1.1 <u>PSEG Nuclear LLC</u></p> <p>The SVP/CNO is responsible for managing and directing the nuclear activities of the company. Overall duties and responsibilities of PSEG Nuclear LLC are provided in Section 13.1.</p>	<p>(2.2.3.1.) The Chief Operating Officer (COO) is responsible to provide management oversight and support of the day-to-day operations of the stations for the safe and efficient operation of the nuclear fleet in compliance with the QAP. The COO is responsible for planning, organizing, and directing and controlling the operations, maintenance and improvement of the nuclear facilities.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR. Ensure the appropriate HCGS Section 13.1 responsibilities are reviewed relative to inclusion in a site-specific QATR.</p>
<p>Vice Presidents, Directors and Managers are responsible for implementation of QA program requirements by their staff. These QA program requirements are contained in the Nuclear Administrative Procedures Manual and in individual department documents.</p>	<p>(2.2.3.) The President and Chief Nuclear Officer (CNO) reports to the President of Exelon Generation and has overall responsibility for the safe and reliable operation of the Company's nuclear stations. This is the senior executive responsible for setting and implementing policies, objectives, expectations, and priorities to ensure activities are performed in accordance with QAP and other requirements. The following management positions and committees report to the CNO:</p> <ul style="list-style-type: none"> <li>– The Chief Operating Officer</li> <li>– A management position responsible for engineering &amp; technical services.</li> <li>– A management position responsible for Nuclear Oversight (NOS) activities.</li> <li>– A management position responsible for</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>performance assessment.</p> <ul style="list-style-type: none"> <li>– A management position responsible for auditing and programs.</li> <li>– A management position responsible for licensing and regulatory affairs.</li> <li>– A nuclear safety review board.</li> <li>– A management position responsible for business operations.</li> <li>– A management position responsible for licensing projects.</li> <li>– A management position responsible for project development.</li> <li>– A Site Organization.</li> </ul> <p>(1.0.) Organizational responsibilities are described for assuring that activities affecting quality are prescribed and implemented by documented instructions, procedures, and drawings.</p> <p><i>(Note: Procedures, instructions, and drawings etc, within the Exelon Nuclear Document Hierarchy contain QAP requirements.)</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The SVP/CNO regularly assesses the scope, status, adequacy, and compliance of the QA program to 10CFR50, Appendix B and 10CFR72, Subpart G through:</p> <ol style="list-style-type: none"> <li>1. Frequent contacts in staff meetings, NOS audit and performance based assessment reports, audits by independent auditors, NRC inspection reports and department status reports.</li> <li>2. Audits and performance based assessments of the QA program that is</li> </ol>	<p>(2.2.3.3.) The President and Chief Nuclear Officer (CNO) reports to the President of Exelon Generation and has overall responsibility for the safe and reliable operation of the Company's nuclear stations. The following management position reports to the CNO:</p> <ul style="list-style-type: none"> <li>– The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. Functional responsibilities include: <ul style="list-style-type: none"> <li>- Establishing quality assurance practices and policies.</li> </ul> </li> </ul>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>preplanned and documented. The audits and performance-based assessments address the scope, status, and adequacy of the QA program. Corrective action is identified, and tracked.</p>	<ul style="list-style-type: none"> <li>- Independent assessment and quality verification activities.</li> <li>- Overseeing nuclear site NOS activities.</li> <li>- Periodic assessments to determine that the Quality Assurance Policy is being carried out.</li> <li>- Periodic review of the independent assessment program.</li> <li>- Periodically apprising the President and CNO and the Nuclear Safety Review Board of the status of the quality assurance aspects at Company facilities and immediately apprise them of significant problems affecting quality.</li> <li>- The internal assessment program.</li> <li>- The management assessment program.</li> </ul> <p>(Chapter 2.1, 2<sup>nd</sup> Paragraph) The QAP is based upon 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.</p> <p>(Chapter 2.1, 3<sup>rd</sup> Paragraph) The requirements of 10CFR72, Subpart G, "Quality Assurance for Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste," are also included. The Company is committed to carrying out the provisions of various NRC regulatory guides and industry standards, which further define Quality Assurance Program requirements (see attached Appendix C).</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director-NOS, reporting through the Assessment Vice President (AVP) to the Senior Vice President and Chief Nuclear Officer, provides management direction and control of functions that assess the safe operation of the nuclear stations, the quality of work performed by support personnel, and compliance with the Operational QA Program, nuclear safety requirements, company policies, regulatory commitments and governmental regulations.</p>	<p>(2.2.3.) The President and Chief Nuclear Officer (CNO) reports to the President of Exelon Generation and has overall responsibility for the safe and reliable operation of the Company's nuclear stations. This is the senior executive responsible for setting and implementing policies, objectives, expectations, and priorities to ensure activities are performed in accordance with QAP and other requirements. The following management position and committees report to the CNO:</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>– A management position responsible for Nuclear Oversight (NOS) activities.             <ul style="list-style-type: none"> <li>- A management position responsible for performance assessment.</li> <li>- A management position responsible for auditing and programs.</li> </ul> </li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director-NOS assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. Reporting to the Director-NOS are the Hope Creek Station NOS Manager, and the Vendor Assessors.</p>	<p>(2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. Reporting to this position is:</p> <ul style="list-style-type: none"> <li>– A management position responsible for performance assessment. This position is responsible to prioritize and communicate common quality issues to appropriate senior management including the resolution of these issues. A position responsible for implementation of site level NOS activities reports through this management position.</li> <li>– A management position responsible for auditing and programs. Functional areas of responsibility include:             <ul style="list-style-type: none"> <li>- Maintaining the regulatory required compliance-auditing program.</li> <li>- Managing the conduct of supplier assessments, audits, or surveys (including their sub-tier suppliers) as required.</li> </ul> </li> </ul> <p>Discussion: The Vendor Assessors are identified as “Vendor Auditors” in the QATR. The vendor auditors report to the management position responsible for NOS.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The AVP advises PSEG Nuclear LLC management regarding the overall quality and safety of plant operations and makes recommendations for performance improvement, as appropriate. Reporting to the AVP are the Director-NOS, and the Safety Conscious Work Environment Group.</p>	<p>(2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Periodically apprising the President and CNO and the Nuclear Safety Review Board of the status of the quality assurance aspects at Company facilities and immediately apprise them of significant problems affecting quality.</li> </ul> <p>Discussion: Ensure the Safety Conscious Work Environment Group is added to the QATR as site-specific (use a generic name for the SCWE function).</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Hope Creek Station NOS Manager is responsible for implementation and oversight of the Audit, Performance Based Assessment, and Quality Verification Inspection Programs.</p>	<p>(2.3.6.) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment. This position has the organizational freedom and authority to identify problems, has a reporting relationship with the senior management position responsible for overall plant nuclear safety, and ensures compliance with QAP and nuclear safety requirements. Significant safety or quality issues requiring escalated action will be directed through the management position responsible for NOS to the President and CNO. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Authority and responsibility to escalate matters.</li> <li>– Approving the agenda, checklist, findings, and report of each assessment.</li> <li>– Conducting independent assessments of line and support activities and safety reviews.</li> <li>– Identify changes to the quality assurance program.</li> <li>– Initiate, trend and recommend solutions for</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>deficiencies identified by NOS.</p> <ul style="list-style-type: none"> <li>– Maintain a suitably trained and qualified staff.</li> <li>– Monitoring day-to-day station activities.</li> <li>– Provide NOS management periodic reports on the status and adequacy of the QAP.</li> <li>– Quality verification inspections.</li> <li>– Promptly communicate significant issues to NOS and appropriate site management.</li> <li>– Stop work or request any other actions to avoid unsafe plant conditions.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The responsibilities of the Director-NOS and Hope Creek Station NOS Manager are described below, in Section 17.2.1.1.1.</p>	<p>Lead in sentence, not a requirement.</p>
<p>17.2.1.1.1 <u>Nuclear Oversight</u></p> <p>The Director-NOS is responsible for defining, formulating, implementing, and coordinating the QA program. The Director has been delegated the authority and has the independence to interpret quality requirements, identify quality problems and trends, and provide recommendations or solutions to quality problems.</p>	<p>(2.2.3.3. (Corporate Organization)) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization</p> <p>Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Establishing quality assurance practices and policies.</li> <li>– Independent assessment and quality verification activities.</li> <li>– Initiating, trending, and recommending solutions for deficiencies identified by NOS.</li> <li>– Overseeing nuclear site NOS activities.</li> </ul> <p>(2.2.3.3.B) Also reporting to the management position responsible for NOS is a management position responsible for auditing and programs. Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>– Establishing, maintaining, and interpreting Company quality assurance policies and procedures.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.6.) When the Company delegates responsibility for planning, establishing, or implementing any part of the overall QAP, sufficient authority to accomplish the assigned responsibilities is delegated. Regardless of delegation, the Company retains responsibility.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director is responsible for approval of the QA Department Manual used during the operations phase of the nuclear stations.</p>	<p>(2.2.3.3.B) Also reporting to the management position responsible for NOS is a management position responsible for auditing and programs. Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>– Maintaining the regulatory required compliance-auditing program.</li> <li>– Establishing, maintaining, and interpreting Company quality assurance policies and procedures.</li> <li>– Controlling and maintaining the QATR.</li> </ul> <p>Discussion: Note: The QATR and NQA-1-1994 applies to both construction and operational phases. The QA Department Manual contains guidance documents, which are part of the maintenance of company policies and procedures.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director also is responsible for verifying compliance with established requirements for the QA program through document review, monitoring, audits, performance based assessments, and quality verification inspection activities. NOS provides a centralized coordinating function for QA program activities applied to the operation phase.</p>	<p>(2.2.3.3. (Corporate Organization)) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization</p> <p>Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Establishing quality assurance practices and policies.</li> <li>– Independent assessment and quality verification activities.</li> </ul>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>– Initiating, trending, and recommending solutions for deficiencies identified by NOS.</li> <li>– Overseeing nuclear site NOS activities.</li> <li>– Periodic assessments to determine that the Quality Assurance Policy is being carried out.</li> <li>– Periodic review of the independent assessment program.</li> <li>– The internal assessment program.</li> <li>– The management assessment program.</li> </ul> <p>Discussion: The QATR and NQA-1-1994 applies to both construction and operational phases.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director-NOS and Hope Creek NOS Manager have the authority and responsibility to stop work through the issuance of a stop work order, when significant conditions adverse to quality require such action.</p>	<p>(2.2.3.3. (Corporate Organization)) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Initiating stop work, ordering unit shutdown, or request any other actions deemed necessary to avoid unsafe plant conditions or a significant violation of the QAP.</li> </ul> <p>(2.3.6. (Site Level)) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Stop work or request any other actions to avoid unsafe plant conditions.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>The Hope Creek Station NOS Manager is responsible for implementing, monitoring and reporting on the audits, performance based assessments, and quality verification inspection activities for the Hope Creek Station.</p>	<p>(2.3.6. (Site Level)) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Approving the agenda, checklist, findings, and report of each assessment.</li> <li>– Conducting independent assessments of line and support activities and safety reviews.</li> <li>– Identify changes to the quality assurance program.</li> <li>– Initiate, trend and recommend solutions for deficiencies identified by NOS.</li> <li>– Monitoring day-to-day station activities.</li> <li>– Quality verification inspections.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The PSEG Nuclear LLC policies and organization structure assure that the Director-NOS and Hope Creek Station Manager have sufficient organizational freedom and independence to carry out their responsibilities.</p>	<p>(2.5.) Personnel performing NOS assessment functions for the Company have the responsibility, authority, organizational freedom, and sufficient independence from cost and schedule to:</p> <ul style="list-style-type: none"> <li>– Assure that further processing, delivery, installation, or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred.</li> <li>– Identify quality problems.</li> <li>– Initiate, recommend, or provide solutions to quality problems through designated channels.</li> <li>– Initiate stop work, order unit shutdown, or request any other actions deemed necessary to avoid unsafe plant conditions or a significant violation of the QAP</li> <li>– Verify implementation of solutions for significant conditions adverse to quality.</li> </ul>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.
<p>Responsibilities and authorities of the Director-NOS and the Hope Creek Station NOS Manager include the following:</p> <ol style="list-style-type: none"> <li>1. The authority and responsibility to stop work, through the issuance of a Stop Work Order, when significant conditions adverse to quality requires such action.</li> <li>2. The responsibility and authority for verifying compliance with established requirements of the QA program through document reviews, audits, performance based assessments and quality verification inspection activities. This includes the authority to interpret QA program requirements during conduct of the above activities.</li> <li>3. Development and implementation of the NOS Audit and Performance Based Assessment Programs.</li> <li>4. Performing performance based assessments of contractor activities and evaluation of emergent contractor programs and procedures.</li> <li>5. Planning, scheduling and performing functional area audits, performance based assessments conducted within PSEG Nuclear as defined in the Audit and Performance Based Assessment programs.</li> <li>6. Preparation and maintenance of the NOS Department Manual, the QA program description in the UFSAR, and the Operational QA Program description in the Nuclear Administrative Procedures Manual. *</li> <li>7. Review of the Nuclear Administrative</li> </ol>	<p>(2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions. The management position responsible for NOS must meet the educational and experience requirements of ANSI/ANS 3.1. A staff of supervisory, administrative, and technical personnel supports assessment and quality verification. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Employee concern program activities.</li> <li>– Establishing quality assurance practices and policies.</li> <li>– Independent assessment and quality verification activities.</li> <li>– Initiating stop work, ordering unit shutdown, or request any other actions deemed necessary to avoid unsafe plant conditions or a significant violation of the QAP.</li> <li>– Initiating, trending, and recommending solutions for deficiencies identified by NOS.</li> <li>– Maintaining a trained and qualified staff of personnel within the NOS organization.</li> <li>– Maintenance and approval of revisions to the Quality Assurance Topical Report (QATR) and the program for employee concerns.</li> <li>– Overseeing nuclear site NOS activities.</li> <li>– Participation in joint membership groups.</li> <li>– Periodic assessments to determine that the Quality Assurance Policy is being carried out.</li> <li>– Periodic review of the independent assessment program.</li> </ul>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Procedures Manual for compliance with the Operational QA Program. *</p> <p>8. Performing review of selected lower tier administrative and implementing procedures through audits, performance based assessments, and quality verification inspections.</p> <p>9. Conducting QA Program orientation for PSEG Nuclear personnel and administering the training and certification program for NOS personnel involved in auditing, performance based assessment, and quality verification inspection activities, maintaining the NOS training plan, and maintaining NOS training records. *</p> <p>10. Review of new regulatory requirements for QA program impact.</p> <p>11. Verify compliance with the procedures that implement the commitment management program by review of selected commitments through audits, performance based assessments, and quality verification inspection activities.</p> <p>12. Conduct performance based assessments of selected Code related activities; observe selected testing, and review selected weld procedures for inclusion of QA requirements.</p> <p>13. Implementation of the onsite independent review. *</p> <p>14. Monitoring/auditing of nuclear fuel installation. *</p> <p>15. Perform periodic performance based assessments of the Material Center Material Compliance Inspection activities.</p> <p>16. Perform periodic performance based assessments of the Procurement</p>	<ul style="list-style-type: none"> <li>– Periodically apprising the President and CNO and the Nuclear Safety Review Board of the status of the quality assurance aspects at Company facilities and immediately apprise them of significant problems affecting quality.</li> <li>– Settling disputes between NOS and other organizations.</li> <li>– The certifying authority for NOS assessment personnel.</li> <li>– The internal assessment program.</li> <li>– The management assessment program.</li> <li>– Verifying implementation of solutions for significant conditions adverse to quality identified by NOS.</li> </ul> <p>(2.2.3.3.B.) Also reporting to the management position responsible for NOS is a management position responsible for auditing and programs. Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>– Controlling and maintaining the QATR.</li> <li>– Establishing the requirements for assessment/auditor and inspector certification.</li> <li>– Establishing, maintaining, and interpreting Company quality assurance policies and procedures.</li> <li>– Maintaining the regulatory required compliance-auditing program.</li> <li>– Managing implementation of the program for employee concerns.</li> <li>– Managing the conduct of supplier assessments, audits, or surveys (including their sub-tier suppliers) as required. Verifies that supplier quality assurance programs comply with Company requirements and has the authority and responsibility for QA activities applicable to supplier evaluation including, stop work as deemed necessary when a violation of the QAP is identified.</li> <li>– Provides an offsite point of contact for station</li> </ul>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Engineering activities for material and service procurements.</p> <p>17. Conduct of Supplier surveys, audits and surveillances.</p> <p>18. Evaluation of prospective and existing Supplier QA programs.</p> <p>19. Monitoring/auditing of nuclear fuel fabrication. *</p> <p>20. Review of nuclear fuel specifications for inclusion of QA requirements. *</p> <p>21. Implementation of the Quality Verification Inspection program consisting of the following:</p> <ul style="list-style-type: none"> <li>– Implementation of the Inspection Program as described in section 17.2.10, Inspection.</li> <li>– Perform independent Inspection Hold Points as designated in design change packages, procedures, and work packages to verify conformance to applicable codes or industry standards</li> </ul> <p><i>* - Specifically addressed in right column.</i></p>	<p>Quality Verification personnel if assistance is necessary for Quality verification activities.</p> <ul style="list-style-type: none"> <li>– Providing training on quality assurance subjects.</li> </ul> <p>(2.3.6.) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment. This position has the organizational freedom and authority to identify problems, has a reporting relationship with the senior management position responsible for overall plant nuclear safety, and ensures compliance with QAP and nuclear safety requirements. Significant safety or quality issues requiring escalated action will be directed through the management position responsible for NOS to the President and CNO. Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>– Authority and responsibility to escalate matters.</li> <li>– Approving the agenda, checklist, findings, and report of each assessment.</li> <li>– Conducting independent assessments of line and support activities and safety reviews.</li> <li>– Identify changes to the quality assurance program.</li> <li>– Initiate, trend and recommend solutions for deficiencies identified by NOS.</li> <li>– Maintain a suitably trained and qualified staff.</li> <li>– Monitoring day-to-day station activities.</li> <li>– Provide NOS management periodic reports on the status and adequacy of the QAP.</li> <li>– Quality verification inspections.</li> <li>– Promptly communicate significant issues to NOS and appropriate site management.</li> <li>– Stop work or request any other actions to avoid unsafe plant conditions.</li> </ul> <p>Discussion:</p> <ul style="list-style-type: none"> <li>– Reference No. 6 (left) is addressed by identifying changes to the QAP.</li> </ul>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>– The Company training program stated in Chapter 2, Paragraph 2.5, addresses reference No. 9.</li> <li>– Reference No. 7, 14, &amp; 20 (left); Nuclear Oversight is not included in in-line functions per the Exelon QATR and maintains its independence for the oversight of quality.</li> <li>– Reference No. 19 (left) is performed by NUPIC under the procurement process. Reference No. 13 (left) is addressed by the 3-tier approach for the oversight of safety with the management position for site NOS as responsible (see 2.3.6).</li> </ul> <p>Conclusion: The QATR and programs and procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p>17.2.1.1.1.1 <u>Nuclear Oversight Personnel Qualifications</u></p> <p>The Director-NOS and Hope Creek Station NOS Manager must meet the educational and experience requirements of ANSI/ANS 3.1.</p> <p>This requires a combination of 6 years of experience in the field of QA and operations. At least 1 of these 6 years of experience must be in the overall implementation of a nuclear power plant QA program. A minimum of 1 year and a maximum of 4 of the 6 years of experience may be fulfilled by related technical or academic training.</p>	<p>(2.2.3.3.) The management position responsible for NOS must meet the educational and experience requirements of ANSI/ANS 3.1.</p> <p>Discussion: Director – This position is stated generically within the QATR. Experience - NOS personal qualification details, as described in the left column, were removed from the Exelon QAP and placed in sub-tier procedures. This was evaluated as an elimination of QAP information that duplicated language in quality assurance regulatory guides and/or quality assurance standards to which Exelon was committed (10CFR50.54(a)(3)(v)).</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel performing quality verification inspections, examinations, and test activities (i.e., to verify conformance) are certified as Level I, Level II, or Level III, as appropriate to their responsibilities, in accordance with Regulatory Guide 1.58, and the NOS Quality Verification Inspector Certification program.</p>	<p>(Chapter 2, Paragraph 2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained. A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 9, Paragraph 2.4) Company, contractor, and subcontractor personnel performing special processes are trained, tested, qualified, or certified in accordance with a procedure that meets applicable requirements.</p> <p>(Chapter 10, Paragraph 2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current. Qualified personnel perform inspections. Inspectors with valid certifications perform inspections for acceptance. Inspectors are independent of those who perform or directly supervise the activity being inspected.</p> <p>Discussion: The NRC withdrew this RG 1.58 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.6 was replaced by NQA-1-1989 (2S-1 &amp; 2A-1) and is included in NQA-1-1994 (2S-1 through 2S-4 and Appendices 2A-1 through 2A-4).</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel performing Nuclear Oversight audits and performance-based assessments are certified as auditors or lead auditors, as appropriate to their responsibilities in accordance with Regulatory Guide 1.146.</p>	<p>(2.2.3.3.B.) Also reporting to the management position responsible for NOS is a management position responsible for auditing and programs. Functional areas of responsibility include establishing the requirements for assessment/auditor and inspector certification.</p> <p>(Chapter 2, Paragraph 2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained.</p> <p>(Chapter 18, Paragraph 2.1.3.) Experienced and qualified personnel perform assessments and audits and are familiar with written procedures, standards, and processes applicable to the area being evaluated.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Discussion: The NRC withdrew RG 1.146 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.23 was replaced by NQA-1-1989 2S-4 &amp; Appendix 2A-3, and is included in NQA-1-1994. The training, qualification, and certification of auditors and lead auditor are delineated in sub-tier procedures and follow the supplementary requirements of NQA-1-1994, Supplement 2S-3.</p> <p>Conclusion: The QATR, NQA-1-1994, and procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p>The qualifications of personnel performing the onsite independent review function are described in Section 17.2.1.1.2.4.</p>	<p>Discussion: This text is not a requirement and is a “lead-in” statement. The actual requirements are stated in paragraphs following this entry.</p>
<p>17.2.1.1.2 <u>Operational Review</u></p> <p>All programs and procedures required by Technical Specifications and changes thereto will be reviewed in accordance with Sections 17.2.1.1.2.1 or 17.2.1.1.2.2, below. (<i>Note: 17.2.1.1.2.1 is Technical Review and Control and 17.2.1.1.2.2 is SORC.</i>)</p>	<p>Discussion: This text is not a requirement, remove or modify as necessary. The actual requirements are stated in paragraphs following this entry.</p>
<p>Three advisory groups, the Station Operations Review Committee (SORC), the Nuclear Review Board (NRB), and Nuclear Oversight (NOS) Onsite Independent Review, are responsible for reviewing and evaluating items related to nuclear safety. The overall responsibilities of these groups are provided below.</p> <p>NOS is expected to be represented at SORC meetings.</p> <p>As part of its offsite independent review functions, the NRB is responsible for selected preplanned, independent audits of plant operations. These audits are generally conducted by NOS under NRB cognizance.</p>	<p>Discussion: The Exelon equivalent process for SORC is the PORC, for the NRB is the NSRB, and for the On-site Independent Review is the three-tiered approach to the oversight of safety. Which are:</p> <ul style="list-style-type: none"> <li>– A collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety. These elements include system performance monitoring, review of operating experience information, operability evaluations, and reviews of changes to technical specifications and final safety analysis reports that affect design bases. Specific guidance is contained in applicable procedures and programs.</li> <li>– A NOS staff that assesses and performs quality verification inspection aspects of Company</li> </ul>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>activities within the scope of the QATR relating to safety. This provides for an overview of activities affecting or potentially affecting safety.</p> <ul style="list-style-type: none"> <li>– A NSRB which is an off-site committee that reports to and advises the President and Chief Nuclear Officer, Exelon Nuclear, of the results of independent oversight of plant operation relative to nuclear safety.</li> </ul> <p>NOS is considered a regular member of PORC and may remove themselves as a voting member to support independent auditing or oversight of PORC function. <i>(Note: This is delineated in a sub-tier procedure LS-AA-106 under “PORC Composition.”)</i></p> <p>Independent review by the NSRB includes the area of nuclear power plant operations. <i>(Note: This is delineated in sub-tier procedure LS-AA-116 under “NSRB Reviews.”)</i></p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>17.2.1.1.2.1 <u>Technical Review and Control</u></p> <p>ACTIVITIES - All programs and procedures required by Technical Specification 6.8, and changes thereto, and any other proposed procedures or changes thereto which affect plant nuclear safety as determined by the Plant Manager, other than editorial or typographical changes shall be reviewed as follows:</p>	<p>(Chapter 5, Paragraph 2.3.) Procedures and Programs Review and approval of site procedures are performed in accordance with technical specification requirements as delineated in the Technical Review or Station Qualified Review (SQR) programs.</p> <p>(Chapter 5, Paragraph 2.3.1.) Procedures required by a station’s Technical Specifications and other procedures, which affect nuclear safety, as determined by the manager responsible for station operation, and changes thereto, other than editorial or typographical changes, shall be reviewed as follows prior to implementation.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>PROCEDURE RELATED DOCUMENTS - Procedures, programs and changes thereto shall be reviewed as</p>	<p>(Chapter 5, Paragraph 2.3.1.)</p> <ul style="list-style-type: none"> <li>– Each procedure or procedure change shall be</li> </ul>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>follows:</p> <ol style="list-style-type: none"> <li>1. With the exception of procedures and changes reviewed by SORC, each newly created procedure, program or change thereto shall be independently reviewed by an individual knowledgeable in the area affected other than the individual who prepared the procedure, program or procedure change, but who may be from the same organization as the individual/group which prepared the procedure or procedure change.</li> <li>2. NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes", describes the review and approval process for procedures. Nuclear Administrative Procedures, Station Administrative Procedures, Security Plan Implementing Procedures, and Emergency Plan Implementing Procedures are approved by the Plant Manager. Department Administrative Procedures, and Department Implementing Procedures are approved by the Department Manager or designee.</li> <li>3. On-the-spot changes to implementing procedures and the Partial Procedure Implementation Process are described in Section 13.5, "Plant Procedures". Revisions to procedures, which may involve a change in intent of the approved procedures, shall be reviewed in accordance with Item 1 above.</li> <li>4. Individuals responsible for reviews performed in accordance with Item 1 above</li> </ol>	<p>independently reviewed by a qualified individual knowledgeable in the area affected other than the individual who prepared the procedure or procedure change.</p> <ul style="list-style-type: none"> <li>– This review shall include a determination of whether or not additional cross-disciplinary reviews are necessary. If deemed necessary, the reviews shall be performed by the qualified review personnel of the appropriate discipline(s).</li> <li>– Applicable Administrative Procedures recommended by Regulatory Guide 1.33 shall be submitted to the Plant Operations Review Committee (PORC) as applicable, for review prior to implementation. The PORC shall recommend approval or disapproval based on their review.</li> <li>– Review of procedures or procedure changes to those procedures, that describe the means for controlling or operating structure, systems, and/or components as described in the UFSAR, will include a review to determine if NRC review and approval is necessary prior to the implementation of the procedure activity. This review is based on the review of a written 10CFR50.59/72.48 review and evaluation prepared by qualified individual(s), or documentation that a 10CFR50.59/72.48 evaluation is not required. The PORC and the NSRB shall review and recommend approval of items requiring NRC review and approval prior to station approval for implementation. NRC approval shall also be obtained prior to station approval for implementation.</li> <li>– Department head approval authority shall be as specified in station procedures.</li> <li>– Written records of reviews performed in accordance with this specification shall be prepared and maintained.</li> </ul>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>shall be approved by the SORC chairman and designated as Station Qualified Reviewers. A system of Station Qualified Reviewers, each of whom shall possess qualifications that meet or exceed the requirements of Sections 4.1 and 4.7 of ANSI/ANS 3.1-1981, shall be maintained by the SORC chairman. Each review shall include a written determination of whether or not additional cross-disciplinary review is necessary. If deemed necessary, such review shall be performed by the appropriate designated review personnel.</p> <p>5. If the Department Manager determines that the documents involved require a 10 CFR 50.59 evaluation, the documents shall be forwarded for SORC review and also to the Nuclear Review Board for an independent review to determine whether or not they involve any of the criteria of paragraph 10CFR50.59(c) (2). Pursuant to 10 CFR 50.59, NRC approval of items involving any of the criteria of paragraph 10CFR50.59(c)(2) or Technical Specification changes shall be obtained prior to implementation.</p> <p>NON-PROCEDURE RELATED DOCUMENTS - Tests or experiments and changes to equipment or systems shall be forwarded for SORC review and also to the Nuclear Review Board for an independent review to determine whether or not they involve any of the criteria of paragraph 10CFR50.59(c)(2).</p> <p>The results of the Nuclear Review Board reviews will be provided to SORC. Recommendations for approval are made by SORC to the Plant Manager. Pursuant to 10 CFR 50.59, NRC approval of items involving any of the criteria of paragraph 10CFR50.59(c)(2) or Technical Specification changes shall be obtained prior to implementation.</p>	<ul style="list-style-type: none"> <li>– Editorial and typographical changes shall be made in accordance with station procedures.</li> </ul> <p>2. Technical reviewers shall advise their supervisors and/or PORC on all matters related to nuclear safety that are identified during reviews. The reviewer shall be other than the originator. The reviewer shall determine if additional cross-disciplinary reviews are required to ensure all applicable technical disciplines are included. This review shall ensure technical accuracy, compliance with regulatory requirements, and shall verify the originator's determination of whether items reviewed constitutes a change to the Technical Specifications, Operating License, or if NRC review and approval is required prior to implementation.</p> <p>3. Technical reviewers shall be qualified to perform technical reviews based on the individual's training, experience, and knowledge level. Technical reviewers, assigned the responsibility for reviewing 10CFR50.59/72.48 reviews and evaluations, shall receive training in this process. Technical reviewers shall be qualified to perform this function and meet the experience requirements per applicable standards. Personnel shall have expertise in one or more of the following disciplines as appropriate, for the subject or subjects being reviewed:</p> <ul style="list-style-type: none"> <li>– Chemistry</li> <li>– Instrumentation and controls</li> <li>– Mechanical and electrical systems</li> <li>– Nuclear power plant technology</li> <li>– Radiological controls</li> <li>– Reactor engineering</li> <li>– Reactor operations</li> </ul> <p>4. Technical reviews shall be documented and records maintained.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>RECORDS AND REPORTS - Written records of reviews performed in accordance with item 1 above, including recommendations for approval or disapproval, shall be maintained.</p>	<p>5. Temporary Changes - Temporary changes to procedures required by 2.3.1.1 (above) may be made provided:</p> <ul style="list-style-type: none"> <li>- The intent of the original procedure is not altered.</li> <li>- The change is approved by two members of the plant management staff knowledgeable in the areas affected by the procedures, at least one of whom holds a Senior Reactor Operator's License on the unit affected.</li> <li>- The change is documented, reviewed, and approved in accordance with 2.3.1 (above) within 14 days of implementation.</li> </ul> <p>Discussion: Non-procedure related documents are covered under 10CFR50.59. If further review is necessary, then the issue goes to PORC (SORC).</p> <p>Conclusion: Exelon has a program for the technical review and control of procedures. The specific details as to how this is accomplished are delineated in sub-tier procedures. Moving the detail text to procedures is supported by 10CFR50.54(a)(3)(i), (ii), &amp; (v) and NRC SER dated December 24, 2002, for the "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</p>
<p>17.2.1.1.2.2 <u>Station Operations Review Committee (SORC)</u></p> <p>FUNCTION - The Station Operations Review Committee shall function to advise the Plant Manager on all matters related to nuclear safety.</p>	<p>(2.3.5.) The Plant Operations Review Committee (PORC) is a multi-disciplined committee responsible for review of activities that affect nuclear safety, reports to, and advises the management position responsible for plant operation on matters related to nuclear safety.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p><i>Note: The wording in this section, as it would apply to both Salem and Hope Creek Generating Stations, should be made more generic with respect to the function of the Station Operations Review Committee. For example, an on-site review committee in lieu of "SORC."</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR. Minor wording modifications need to be made so that this section relates more generically to a "PORC Function." rather than the specific name of "PORC." Use the QATR wording in lieu of the HCGS UFSAR Text.</p>
<p>COMPOSITION - The Station Operations Review Committee (SORC) shall be chaired by the Plant Manager and shall be composed of regular members from the Hope Creek Generating Station staff, Engineering, Maintenance and from the Nuclear Oversight organization having experience in each of the following areas:</p> <ol style="list-style-type: none"> <li>1. Plant Operations</li> <li>2. Engineering</li> <li>3. Maintenance</li> <li>4. Chemistry</li> <li>5. Radiation Protection</li> <li>6. Nuclear Oversight</li> <li>7. Licensing</li> </ol> <p>The member having experience in the area of Radiation Protection shall meet the qualification requirements of Regulatory Guide 1.8, September 1975.</p> <p>All other members shall meet the requirements of ANSI/ANS 3.1-1981 for the appropriate discipline. All members shall be appointed in writing by the Plant Manager The Vice Chairman shall be drawn from the SORC members and shall be appointed in writing by the Plant Manager.</p>	<p>(2.3.5.) The Plant Operations Review Committee (PORC) is a multi-disciplined committee responsible for review of activities that affect nuclear safety, reports to, and advises the management position responsible for plant operation on matters related to nuclear safety.</p> <p>The PORC shall ensure that plant activities are conducted safely and do not require NRC review and approval prior to implementation or changes to the Technical Specifications. The PORC functions in accordance with written instructions, which delineate committee composition, responsibility, authority, member qualifications, meeting frequency, subjects to be reviewed, reporting requirements, and administrative controls under which the group operates.</p> <p>Discussion: Nuclear Oversight is not included in in-line functions per the Exelon QATR and maintains its independence for the oversight of quality.</p> <p>There is no equivalent wording in the QATR describing in detail the PORC function. All of the elements, similarly described in the left column, are delineated in sub-tier procedures. The requirements and function for PORC are appropriately described in detail per company procedures.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>ALTERNATES - All alternate members shall be appointed in writing by the SORC Chairman. Only the designated Vice Chairmen or the Plant Manager may act as Chairman of a SORC meeting. No more than two alternates to members shall participate as voting members in SORC activities at any one meeting. Alternates for members will not make up part of the voting quorum when the member the alternate represents is also present.</p> <p>MEETING FREQUENCY - The SORC shall meet at least once per calendar month and as convened by the SORC Chairman or his designated alternate.</p> <p>QUORUM - The quorum of the SORC necessary for the performance of the SORC responsibility and authority provisions of this section shall consist of the Chairman or his designated alternate and at least four members including alternates.</p> <p>RESPONSIBILITIES - The Station Operations Review Committee shall be responsible for:</p> <ol style="list-style-type: none"> <li>1. Review of: (1) Upper tier administrative procedures within the scope of Regulatory Guide 1.33 (2/78), and changes thereto; and (2) Newly created procedures or changes to existing procedures that require a 10 CFR 50.59 Evaluation as described in Section 17.2.1.1.2.1.</li> <li>2. Review of all proposed tests and experiments that affect nuclear safety.</li> <li>3. Review of all proposed changes to Appendix "A" Technical Specifications.</li> <li>4. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.</li> <li>5. Review of the Evaluations that have been completed under the provisions of</li> </ol>	<p>The current text as stated in the QATR supports both procedures and regulatory guide/ANSI requirements.</p> <p>The text to be placed in the QATR, as it applies to HCGS, should be modified to reflect more generic wording regarding the naming a "PORC" in less specific terms such as the on-site review committee".</p> <p>Conclusion: The QATR adequately address these statements of the HCGS UFSAR. Deleting the detailed text from the QAP as described in the left column, is supported by 10CFR50.54(a)(3)(i), (ii), &amp; (v) and NRC SER dated December 24, 2002, for the "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>10 CFR 50.59.</p> <p>6. Initiation or review of investigations of all violations of the Technical Specifications including the reports covering evaluation and recommendations to prevent recurrence.</p> <p>7. Review of all REPORTABLE EVENTS.</p> <p>8. Review of facility operations to detect potential nuclear safety hazards.</p> <p>9. Performance of special reviews, investigations or analyses and reports thereon as requested by the Plant Manager.</p> <p>10. Review of the Fire Protection Program and implementing procedures and changes thereto that require a 10 CFR 50.59 Evaluation.</p> <p>11. Review of all unplanned on-site releases of radioactivity to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence.</p> <p>12. Review of changes to the PROCESS CONTROL PROGRAM MANUAL and the OFF-SITE DOSE CALCULATION MANUAL.</p> <p>AUTHORITY - The Station Operations Review Committee shall:</p> <p>1. Provide recommendations in writing to the Plant Manager indicating approval or disapproval of items considered under the SORC responsibilities above.</p> <p>2. Provide written notification within 24 hours to the SVP/CNO, the Hope Creek Site Vice President, the Nuclear</p>	<p>(See above for Conclusion.)</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Assessment Vice President, the Director-NOS, and the Hope Creek Station NOS Manager of disagreement between the SORC and the Plant Manager; however, the Hope Creek Site Vice President shall have responsibility for resolution of such disagreements.</p> <p>RECORDS AND REPORTS - The Station Operations Review Committee shall maintain minutes of each meeting and copies shall be provided to the Hope Creek Site Vice President, the NAVP, the Director-NOS, the Hope Creek Station NOS Manager, and the Nuclear Review Board.</p>	<p>(See above for Conclusion.)</p>
<p><u>17.2.1.1.2.3 Nuclear Review Board (NRB)</u></p> <p>The NRB shall perform the offsite independent review function and provide oversight for audits of activities affecting plant safety. Its purpose is to review, audit, and evaluate both technical and organizational matters pertaining to safe plant operation. One NRB has been established to provide this oversight for both Salem and Hope Creek Generating Stations.</p>	<p>(2.2.3.5.) The Nuclear Safety Review Board (NSRB) is an offsite committee that reports to and advises the President and CNO of the results of their independent oversight of plant operations related to safe operation of the station and the Company's nuclear program relative to nuclear safety.</p> <p>The NSRB is responsible for the independent safety review function and functions in accordance with written procedures and instructions which delineates committee composition, responsibility, authority, member qualifications, meeting frequency, subjects to be reviewed, reporting requirements, and administrative controls under which the board operates.</p> <p>The NSRB:</p> <ul style="list-style-type: none"> <li>— Conducts independent reviews of station performance and operations to determine if the facility is being operated and maintained in a manner that promotes safety and provides feedback to the organization on suggested improvements.</li> <li>— Focuses primarily in the areas of Operations, Maintenance, Engineering, Plant Support, Regulatory and Nuclear Oversight, or other</li> </ul>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>matters relating to safety.</p> <ul style="list-style-type: none"> <li>– Reviews station materials and activities and advises the CNO and management responsible for NOS on the following activities: <ul style="list-style-type: none"> <li>- Any issue potentially affecting the safe operation of the facility.</li> <li>- Station nuclear safety performance determined by discussion and interviews with station and Exelon Nuclear individuals, plant tours, oversight of meetings, and review of documents distributed for NSRB review.</li> <li>- Effectiveness of the station program for oversight including audits, assessments, and self-assessments.</li> <li>- Corrective actions for degraded or non-conforming conditions involving violations of the NRC license requirements, plant transients or forced shutdowns, or the submission of a Licensee Event Report (LER).</li> </ul> </li> <li>– Oversight of activities of the on-site safety review function.</li> </ul> <p>Discussion: The Exelon equivalent process for the NRB is the NSRB. The wording in this section, as it would apply to both Salem and Hope Creek Generating Stations, should be made more generic with respect to the function of off-site independent review. For example, an “Off-site Review Committee” in lieu of “NSRB.” Also, the reporting responsibility needs to be appropriately named.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The NRB charter addresses: membership, responsibilities, reporting requirements, and potential review areas. The NRB shall provide offsite independent review and audit activities in the following areas:</p> <ul style="list-style-type: none"> <li>a. Nuclear Power Plant Operation</li> <li>b. Engineering</li> </ul>	<p>Discussion: There is no equivalent wording in the QATR describing in detail the HCGS NRB function. The details were removed from the QATR and retained in sub-tier procedures. The current text as stated in the QATR supports both PSEG and Exelon procedures and regulatory guide/ANSI requirements. The text to be placed in the QATR, as it applies to HCGS, should be</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>c. Chemistry and Radiochemistry d. Instrumentation and Control e. Radiological Safety f. Nuclear Oversight g. Nondestructive Testing h. Emergency Preparedness</p> <p>The NRB members shall collectively possess experience and competence to provide the independent review of the areas listed above. The NRB shall use consultants or other technical experts as necessary to supplement the NRB experience and competence.</p> <p>NRB members shall meet or exceed the qualifications described in Section 4.7 of ANS 3.1-1981. Exceptions to the ANS 3.1-1981 Section 4.7 qualification requirements may be granted to a maximum of two NRB members provided such members meet the following alternative qualifications: 1) a minimum of twenty (20) years nuclear related experience,</p> <p>2) shall hold or have held a senior reactor operator license or certification, and 3) shall have served as a minimum in a nuclear vice-president or equivalent position.</p> <p>The President and Chief Operating Officer (P&amp;COO) shall approve and document the alternative qualifications of any NRB member seeking exception to the ANS 3.1-1981 Section 4.7 qualification requirements. (Reference SAR CN HCN 05-015 for SVP/CNO to P&amp;COO change.) The NRB shall report to and advise the P&amp;COO on NRB review and assessment activities.</p> <p>The NRB satisfies the requirements of ANSI N18.7-1976 (ANS 3.2), in that the board is composed of no less than five members and no more than a minority of these members are from either the Salem or Hope Creek operating organizations.</p> <p>A quorum shall consist of not less than a majority of the</p>	<p>modified to reflect more generic wording regarding the naming an "Off-site Review Committee" in lieu of NSRB, NRB etc and other specific names.</p> <p>Similar NRB qualification and methodology details, as described in the left column, were removed from the Exelon QAP and placed in sub-tier procedures.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately address these statements of the HCGS UFSAR. Deleting the detail text from the QAP and moving the text to procedures is supported by 10CFR50.54(a)(3) (i), (ii), &amp; (v) and NRC SER dated December 24, 2002, for the "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</p> <p><i>(See above for Conclusion.)</i></p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

members, of which no more than a minority of those present shall have line responsibility for plant operation. The Chairman of the NRB will be appointed by the P&COO. The PSEG members shall be selected from PSEG management personnel. In addition, a minimum of three external consultants shall be members of the NRB. Meetings are scheduled by the NRB Chairman. The NRB shall meet twice a year as a minimum, or more often as determined by the Chairman. Meeting minutes shall be prepared and forwarded to the P&COO.

The NRB, and those performing reviews, audits, or assessments under the cognizance of the NRB, shall have access to records and personnel as necessary to properly perform their functions. The NRB shall be kept current on events within its responsibility by reviewing appropriate documentation (e.g., SORC minutes, Licensee Event Reports, violations, significant corrective actions and audit reports).

The NRB may appoint, in writing (such as in Board meeting minutes), subcommittees for the purpose of performing reviews, studies or special investigations. NRB subcommittee members shall meet or exceed the qualifications described in Section 4.7 of ANS 3.1-1981. The chairman of an NRB subcommittee shall be an NRB member.

The NRB or subcommittees/organizations appointed by the NRB shall review:

- a. Approved Evaluations completed under the provision of 10CFR50.59 to verify that the intended actions did not require prior NRC approval. The results of the Nuclear Review Board reviews will be provided to SORC on a periodic basis.
- b. Proposed changes to Technical Specifications or Facility Operating Licenses to verify such changes involve

*(See above for Conclusion.)*

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>no significant hazards considerations.</p> <ul style="list-style-type: none"> <li>c. Violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements, or internal procedures having nuclear safety significance.</li> <li>d. Significant operating abnormalities or deviations from normal and expected plant equipment performance that affect nuclear safety.</li> <li>e. Reportable events under the provisions of 10CFR50.73.</li> <li>f. All identified deficiencies in the design or operation of structures, systems, or components that could affect nuclear safety.</li> <li>g. SORC reports and meeting minutes.</li> </ul> <p>The NRB will use operating experience as necessary to review current plant and industry concerns, and perform special studies and investigations.</p>	<p>(See above for Conclusion.)</p>
<p>NOS audits and performance-based assessments shall be performed by NOS or by specially selected groups or individuals, including independent consultants. These individuals shall have no immediate responsibility for the activity they assess and do not, while performing the NOS audits and performance based assessments, report to a management representative who has immediate responsibility for the activity being assessed. The NRB shall review final audit and performance based assessment reports.</p>	<p>(Chapter 18, Paragraph 2.1.3.) Experienced and qualified personnel perform assessments and audits and are familiar with written procedures, standards, and processes applicable to the area being evaluated. Assessment and audit personnel shall have sufficient authority and organizational freedom to make the assessment and audit process meaningful and effective and shall not have direct responsibilities in the areas to be assessed.</p> <p>(Chapter 18, Paragraph 2.1.5.) Audit and Assessment results are documented and distributed to the management position responsible for NOS, and to the appropriate managerial level of the organization having</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>responsibility for the area or activity assessed.</p> <p>Discussion: The NSRB review of audits and assessment results is delineated in sub-tier procedures.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The audits and performance based assessment programs shall include:</p> <ul style="list-style-type: none"> <li>a. Facility operation conformance to the provisions contained within Technical Specifications and applicable license conditions.</li> <li>b. The performance, training, and qualifications of the entire facility staff.</li> <li>c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems, or method of operation that affect nuclear safety.</li> <li>d. The performance of activities required by the Operational Quality Assurance Program to meet the Criteria of Appendix B to 10CFR50.</li> <li>e. Any other area of facility operation considered appropriate by the Director-NOS, Hope Creek Station NOS Manager, or the P&amp;COO.</li> <li>f. The facility Fire Protection Program and implementing procedures.</li> <li>g. A Fire Protection Program implementation assessment using an outside independent fire protection consultant.</li> </ul>	<p>Discussion: There is no equivalent wording in the QATR describing in detail the HCGS NRB function as it relates to audit and performance-based assessment programs. The elements, as described in the left column, are delineated in sub-tier procedures for Exelon.</p> <p><i>(Note: Appendix B contains elements that meets the items "a to k" listed in the left hand column. Item (e) is performed under the Appendix B program and at management discretion. )</i></p> <p>The requirements and function for the NRB as listed in the HCGS UFSAR is appropriately described in detail in both PSEG and Exelon procedures. The methodology employed in reducing the amount of detail in the QAP was applied in QATR (R70) and approved by the NRC in an SER report.</p> <p>Conclusion: The QATR and procedures governed by the QATR address these statements of the HCGS UFSAR. Deleting the text from the QAP as described in the left column, is supported by 10CFR50.54(a)(3)(i), (ii), &amp; (v) and NRC SER dated December 24, 2002, for the "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>h. The radiological environmental monitoring program.</p> <p>i. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures.</p> <p>j. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes.</p> <p>k. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring.</p> <p>The NRB shall review NOS scheduled audits and performance based assessments at least semi-annually to ensure that they are being performed in accordance with this section of the UFSAR.</p> <p>NRB review records and NRB meeting minutes shall be maintained. Reports of reviews, meeting minutes and completed audits shall be prepared and distributed as indicated below:</p> <p>a. NRB meeting minutes and a report of completed NRB reviews shall be prepared and forwarded to the SVP/CNO within 30 days of any NRB meeting.</p> <p>b. Audit and performance based assessment reports shall be forwarded to the P&amp;COO and management positions responsible for the areas audited and assessed within 30 days after completion of the audit and performance based assessment exit meeting for those audits and performance based assessment conducted by the NOS Department and within 60 days after completion of the</p>	<p>(See above for Conclusion.)</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>audit for those audits conducted by an independent consultant.</p>	
<p>17.2.1.1.2.4 <u>Onsite Independent Review</u></p> <p>The Director-NOS and the Hope Creek Station NOS Manager shall be responsible for onsite independent review. The onsite independent review shall be performed by a minimum of four (4) personnel who are independent of plant management. These individuals shall report to the Hope Creek Station NOS Manager.</p> <p>The Director-NOS and Hope Creek Station NOS Manager shall utilize the information obtained during onsite independent review as input to advise management on the overall quality and safety of operations and, through the NAVP, shall report to and advise the SVP/CNO on the results of onsite independent reviews.</p> <p><i>(Note: NAVP is the Nuclear Assessment Vice-President)</i></p> <p>The personnel performing onsite independent review shall function to provide: the review of plant design and operating experience for potential opportunities to improve plant safety; evaluation of plant operations and maintenance activities; and advice to management on the overall quality and safety of plant operations.</p> <p>These personnel shall make recommendations for revised procedures, equipment modifications, or other means of improving plant safety to appropriate station/corporate management. On-site independent review shall encompass:</p> <ol style="list-style-type: none"> <li>a. Review of selected plant operating characteristics, NRC issuances, industry advisories, and other appropriate sources of plant design and operating experience information, which may indicate areas for improving plant safety.</li> <li>b. Review of selected facility features, equipment, and systems.</li> </ol>	<p>(2.3.7) The Company uses a three-tiered approach to accomplish the oversight of safety which are:</p> <ul style="list-style-type: none"> <li>– A collection of program elements for implementing and/or reviewing areas of quality of plant operations and nuclear safety. These elements include system performance monitoring, review of operating experience information, operability evaluations, and reviews of changes to technical specifications and final safety analysis reports that affect design bases. Specific guidance is contained in applicable procedures and programs.</li> <li>– A NOS staff who assesses and performs quality verification inspection aspects of Company activities within the scope of the QATR relating to safety. This provides for an overview of activities affecting or potentially affecting safety.</li> <li>– A NSRB which is an off-site committee that reports to and advises the President and Chief Nuclear Officer, Exelon Nuclear, of the results of independent oversight of plant operation relative to nuclear safety.</li> </ul> <p>Discussion: Similar member qualification details for the independent review function, as described in the left column, were removed from an earlier version (R69) of the Exelon QAP. These details were placed in sub-tier procedures. A Tennessee Valley Authority (TVA) Safety Evaluation Report for the “Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Elimination of Independent Engineering Group, TVA – Browns Ferry, Watts Bar, and Sequoyah Nuclear Plants, August 26, 1999,” was used as justification.</p> <p>The QAP wording and commitments for the oversight of safety as described in the current QATR and practices included in company procedure NO-AA-40, “Independent Safety Engineering Function,” are approved in an Exelon SER dated December 24, 2002, for the “Approval of</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>c. Review of selected procedures and plant activities including maintenance, modification, operational problems, and operational analysis.</p> <p>d. Surveillance of selected plant operations and maintenance activities to provide independent verification that they are performed correctly and that human errors are reduced to as low as reasonably achievable.</p> <p>The personnel performing the onsite independent review shall have: 1) at least three (3) years related experience of which at least two (2) years are nuclear related, and a Bachelor Degree in Engineering or a related field; or 2) at least eight (8) years related experience, of which at least five (5) years are nuclear related.</p> <p>At least fifty percent (50%) of the personnel performing the onsite independent review shall have a Bachelor Degree in Engineering or a related field.</p> <p>For the discipline of Operations, a senior reactor operator license or certification may be used as an alternative qualification instead of a Bachelor Degree in Engineering or a related field.</p> <p>Personnel performing the onsite independent review function shall possess knowledge of nuclear power plant operation and knowledge of the discipline or activity in the assigned area of review. A single individual may be qualified to perform reviews in more than one discipline. The requisite experience may have been gained concurrently in related disciplines.</p> <p>The Director-NOS will approve and document the qualifications of those personnel performing the onsite independent review who are qualified based on at least eight (8) years related experience.</p>	<p>Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants.”</p> <p>Conclusion: The QATR adequately address these statements of the HCGS UFSAR. Justification for deleting the text from the HCGS QAP and committing to the oversight of safety function as described in the QATR, is supported by invoking 10CFR50.54(a)(3)(ii), and the Exelon SER.</p> <p><i>(See above for Conclusion.)</i></p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>17.2.1.2 <u>Maplewood Testing Services</u></p> <p>The Manager - Maplewood Testing Services reports to the Vice President - Services in the PSEG Services Corporation. Maplewood Testing Services performs calibrations, analyses, and evaluations on systems, equipment, and materials, as requested by PSEG Nuclear, and maintains compliance with its quality assurance program as approved by Nuclear Oversight.</p>	<p>(Chapter 12, Paragraph2.1.) ) Power Labs is responsible for the governance of M&amp;TE for Exelon plants. This includes the establishment of calibration practices, intervals, accuracy requirements, certification/de-certification, and equivalency decisions (except where accuracy is impactive non-conservatively), as well as the resolution of technical issues regarding M&amp;TE calibration.</p> <p>Recommend entry in a site-specific QATR to change “Power Labs” to generically state “The Company.”</p> <p>Conclusion: The QATR adequately address these statements of the HCGS UFSAR.</p>
<p>17.2.1.3 <u>Deleted</u></p>	<p>No Action Required.</p>
<p>17.2.1.4 <u>Delivery/Electric Department</u></p> <p>PSE&amp;G’s Distribution Relay Department is responsible for providing support to Hope Creek operations for setting and testing protective relays for the external vital power supplies at the station.</p>	<p>(2.3.1.) The management position responsible for plant operations assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, operating license, and the QAP.</p> <p>(2.3.1, 1<sup>st</sup> List Bullet.) Management position(s) for maintenance are responsible for the performance of corrective, predictive and preventive maintenance, cleanliness controls and modification installation of mechanical and electrical equipment and instrumentation in accordance with the QAP and other requirements. A staff of supervisory, technical, administrative, and contract personnel supports day-to-day maintenance of equipment within their functional area.</p> <p>Discussion: PSE&amp;G’s Distribution Relay Department function is generically included in the site organization.</p> <p>Conclusion: The QATR adequately address these statements of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Documents

1. AD-AA-101, "Processing of Procedures and T&RMs."
2. Exelon QATR, Revision 76, Chapters: 1, 5, and Appendix B.
3. Hope Creek UFSAR Section 17.2.1 and 13.5.
4. LS-AA-106, "Plant Operations Review Committee."
5. LS-AA-116, "Nuclear Safety Review Board."
6. NC.DM-AP.ZZ-0001, "Procedure Administrative Process."
7. NC.DM-AP.ZZ-0002, "Procedure On the Spot Change Process."
8. NC.LR-AP.ZZ-0031 (Q), "Nuclear Review Board."
9. NC.NA-AP.ZZ-0004 (Q), "Station Operations Review Committee."
10. NO-AA-10, "Quality Assurance Topical Report," (R76).
11. NO-AA-40, "Independent Safety Engineering Function,"
12. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
13. NQA-1-1994, Basic Requirement 1, "Organization."
14. NQA-1-1994, Supplement 1S-1, "Supplementary Requirements for Organization."
15. PSEG Organizational Charts.
16. RM-AA-101, "Records Management Program."
17. RM-AA-101-1008, "Processing and Storage of Records."
18. RM-AA-101-1009, "Preparing Records for Media Conversion."
19. RM-AA-102, "Control of Documents."
20. RM-AA-103, "Electronic Records Program."
21. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
22. Safety Evaluation Report for the "Nuclear Quality Assurance Plan TVA-NQA-PLN89-A, Elimination of Independent Engineering Group, TVA – Browns Ferry, Watts Bar, and Sequoyah Nuclear Plants, August 26, 1999."
23. Safety Evaluation Report for the "Approval of Nuclear Management Company Quality Assurance Topical Report, NMC – Duane Arnold Energy Center, Kewaunee Nuclear Power Plant, Monticello Nuclear Generating Plant, Palisades Nuclear Plant, Point Beach Nuclear Plants 1 & 2, and Prairie Island Nuclear Generating Plant Units 1 & 2."
24. TQ-AA-112, "Nuclear Oversight Training, Qualification, and Certification."

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Analysis</b>				
<p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>- Some of the entries in HCGS UFSAR 17.2.1 (and 1.8) are adequately addressed within the scope of the QATR. However, numerous administrative changes to the site UFSAR need to be made to assure proper transition of commitments and applicable sections of this UFSAR Chapter to a site-specific QATR.</li> <li>- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), &amp; (v).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
<p>1. Numerous changes need to be made to the site UFSAR and as additions to the QATR product. Use the individual entries made in this analysis to complete the actions required for transition.</p> <p>Re-Review Completed By: W. M. Eckman – 07/25/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	May 18, 2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No.</b> (Rev. 13, 15, 0, 8, 12, 13, 14, & 9)	17.2.2. – Quality Assurance Program	<b>Chapter No.</b> (Rev. 76)	2 – Quality Assurance Program
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>The QA program is designed to comply with the requirements of 10CFR50, Appendix B, and with fire protection program requirements of Branch Technical Position CMEB 9.5-1. This program is applied to items and activities that can affect the health and safety of the public, i.e., Q, F, and R-designated items and activities.</p> <p><i>(Note: "Q" designated equipment identifies those activities and services to which the operational QAP applies during operations. "F" designated equipment relates to fire protection and "R" designated equipment relates to the radioactive waste management system.)</i></p>		<p>(2.1.) The QAP is based upon 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." The requirements of 10CFR50.54, "Conditions of License," 10CFR50.55(a), "Codes and Standards," 10CFR50.59, "Changes, Test, and Experiments," 10CFR50 Appendix A, "General Design Criteria for Nuclear Power Plants," 10CFR50 Appendix R, "Fire Protection Programs for Nuclear Power Plants," are included in the basis for the QAP.</p> <p>(Appendix A, Paragraph 2.4.) The quality assurance program established for these fire protection SSC's ensures that design, procurement, instruction, procedures, drawings, inspection, installation, testing, maintenance, operations, nonconforming Items, corrective Action, records, audits and administrative controls meet the applicable Quality Assurance guidelines as described in the applicable edition of Branch Technical Position (BTP) 9.5-1 for each Exelon site.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>During the operational phase, this includes:</p> <ol style="list-style-type: none"> <li>1. Structures, systems, and components delineated in Table 3.2-1 and marked as Y in "QA Requirement" column.</li> </ol>		<p>Table 3.2-1, is located within the HCGS UFSAR (Chapter 3). QATR Chapters 1 through 18 apply to safety related structures, systems, and components for both construction and operation. This text can be removed since it is duplicated within the UFSAR. Text removal is justified by invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>2. Safety-related activities delineated in Regulatory Guide 1.33 and summarized in Table 17.2-1, Section A and additional NRC requirements contained in Table 17.2-1, Section B.</p>	<p>Exelon is committed to Regulatory Guide 1.33 per Appendix C, Paragraph 1.2. This statement is a summary of requirements contained in Table 17.2-1 and can be deleted. The elements stated in Table 17.2-1 are analyzed and dispositioned separately. Text removal is justified by invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002.</p>
<p>3. Portions of structures, systems, and components whose continued function is not required, but whose failure, caused by a safe shutdown earthquake (SSE), could reduce the functioning of a Seismic Category I structure, system, or component to an unacceptable safety level; or could result in an incapacitating injury to occupants of the control room as shown in Table 17.2-2 and further delineated in Table 3.2-1.</p>	<p>Table 3.2-1 is located within the HCGS UFSAR (Chapter 3) and contains a "Seismic Category (6)" column, which shows how a safety system is seismically classified (I/II). Seismic Classification is defined within the QATR in Appendix D (2.114 and 2.116) and is similarly worded. The elements stated in Table 17.2-2 are analyzed and dispositioned separately. The text in the left hand column can be removed based on invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002.</p>
<p>4. Fire protection systems, including emergency lighting and communications, shown in Table 17.2-3, and further delineated in Table 3.2-1 as well as administrative controls, such as fire brigade training, control of combustibles and ignition sources, and firefighting procedures.</p>	<p>Table 3.2-1 is located within the HCGS UFSAR (Chapter 3). QATR Appendix "A" paragraph 2.4 addresses the augmented quality requirements for fire protection. The elements stated in Table 17.2-3 are analyzed and dispositioned separately. The text in the left hand column can be removed based on invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002.</p>
<p>5. Radwaste management systems described in Table 17.2-4 and further delineated in Table 3.2-1.</p>	<p>Table 3.2-1 is located within the HCGS UFSAR (Chapter 3). The elements stated in Table 17.2-4 are analyzed and dispositioned separately. The text in the left hand column can be removed based on invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002.</p>
<p>6. Dry Cask Storage Program and the Independent Spent Fuel Storage Installation (ISFSI) structures, systems, and components as designated in Section 17.3.</p>	<p>The elements stated in Table 17.3-1 are analyzed and dispositioned separately. The text in the left hand column can be removed based on invoking 10CFR50.54(a)(3)(v) and the Exelon SER dated 24 December 2002. See Appendix A and E of the QATR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The QA program is applied during the operational phase using a graded approach to the extent consistent with the item or activity's importance to safety.</p> <p>Where there is an inconsistency between tables (i.e., Tables 3.2-1, 17.2-1, 17.2-2, and 17.2-3), the item will have QA provisions applied until the conflict is resolved and tables revised.</p>	<p>(1.0.) The QAP also applies to certain non-safety related structures, systems, components and activities to a degree consistent with their importance to safety.</p> <p>("Augmented Quality," Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a <u>graded manner</u> to certain areas and activities that are not clearly defined as safety related.</p> <p>("Augmented Quality," Appendix A, Paragraph 2.0.) The Company applies the following augmented quality requirements to certain systems, structures, components (SSC), and activities that are not safety related to a degree consistent with their importance to safety. Unless otherwise noted:</p> <ul style="list-style-type: none"><li>– Routine audits are performed of the program's content and implementation.</li><li>– Deficiencies are addressed in accordance with the corrective action program.</li><li>– Program records of audits and reviews are maintained as required.</li></ul> <p>Discussion: Currently there is no inconsistency among the UFSAR Tables listed in the left column. A graded approach to quality addresses inconsistencies found within the program.</p> <p>NQA-1-1994, Table 1, a "Comparison of Performance-Based and Compliance-Based Quality Programs" supports a "graded approach" to quality and states in part that; "improvements can be achieved through the use of a graded application of the current requirements, a practice permitted and endorsed in the ASME NQA-1 Standard." Grading means, for example, that not <u>all requirements</u> of NQA-1 need to be applied to <u>all safety related aspects</u> of items and activities.")</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>These activities are performed in compliance with applicable regulatory requirements that include but are not limited to:</p>	<p>Lead-in sentence, not a requirement.</p> <p>The Regulatory Guides, exceptions, and clarifications listed with the Regulatory Guide entries contained in UFSAR section 1.8 will be modified as necessary to retain historical reference, deleting and transferring exceptions and clarifications and reference to NQA-1-1994 and/or the Exelon QATR.</p> <p>Discussion: The modifications to the UFSARs in the next 23 entries are based on a separate analysis of Regulatory Guides using NUREG 0800/SRP 17.2 as the standard of comparison versus the Exelon QATR and NQA-1-1994. Changes will need to be made to the UFSAR for proper transition and transfer remaining applicable commitments to a common site QATR.</p>
<p>1. Regulatory Guide 1.8, Qualification and Training of Personnel for Nuclear Power Plants.</p> <p><i>(Note: This entry is listed along with 5 exceptions in UFSAR section 1.8.1.8 on page 1.8-4.)</i></p>	<p>The UFSAR Regulatory Guide entries are supported by general reference to site UFSARs (i.e.: qualified IAW site specific commitments, technical specifications etc.) in QATR Appendix C sub-sections 1.1 and 1.2 in the 1<sup>st</sup> paragraph.</p> <p>The exceptions should be transferred to a site-specific appendix in the QATR. The entry for RG 1.8 in HCGS UFSAR section 17.2.2 can be removed. The RG 1.8 UFSAR entry in section 1.8.1.8 needs modification to the exceptions section when the QATR is approved for use at the site.</p>
<p>2. Regulatory Guide 1.17, Protection of Nuclear Plants Against Industrial Sabotage.</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.17 on page 1.8-9.)</i></p>	<p>The NRC withdrew this Regulatory Guide (see 56FR 30777, 7/5/91). However, RG 1.17 is implemented IAW the HCGS UFSAR.</p> <p>The UFSAR Regulatory Guide entries are supported by general reference to site UFSARs (i.e.: qualified IAW site specific commitments, technical specifications etc.) in</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>QATR Appendix C sub-sections 1.1 and 1.2 in the 1<sup>st</sup> paragraph.</p> <p>Add RG 1.17 to Appendix C.1.2 in the Exelon QATR for Salem and Hope Creek Only.</p> <p>Delete entry from USFAR Section 17.2.2 and retain as written in section 1.8.1.17.</p>
<p>3. Regulatory Guide 1.26, Quality Group Classifications and Standards for water, steam and radioactive waste containing components of Nuclear Power Plants.</p> <p><i>(Note: This entry is listed along with 2 exceptions and 1 clarification in UFSAR section 1.8.1.26 on page 1.8-12.)</i></p>	<p>The UFSAR Regulatory Guide entries are supported by general reference to site UFSARs (i.e.: qualified IAW site specific commitments, technical specifications etc.) in QATR Appendix C sub-section 1.2 in the 1<sup>st</sup> paragraph.</p> <p>The site-specific exceptions and clarifications should be transferred to the QATR in a site-specific appendix.</p> <p>The entry for RG 1.26 in HCGS UFSAR section 17.2.2 can be removed. The RG UFSAR entry in section 1.8.1.26 will be modified to remove the exceptions and clarification when the QATR is approved for use at the site.</p> <p>Action Complete and included in the QATR.</p>
<p>4. Regulatory Guide 1.29, Seismic Design Classification.</p> <p><i>(Note: This entry is listed along with 10 clarifications in UFSAR section 1.8.1.29 on page 1.8-16.)</i></p>	<p>The UFSAR Regulatory Guide entries are supported by general reference to site UFSARs (i.e.: qualified IAW site specific commitments, technical specifications etc.) in QATR Appendix C sub-section 1.2 in the 1<sup>st</sup> paragraph.</p> <p>The site-specific clarifications should be transferred to the QATR. The entry for RG 1.29 in HCGS UFSAR section 17.2.2 can be removed. The RG UFSAR entry in section 1.8.1.29 will be modified to remove the clarifications when the QATR is approved for use at the site.</p> <p>Note: Based on the challenge review it was decided not to modify the UFSAR Section 1.8.1.29. QATR Appendix C refers back to UFSAR Section 1.8.1.29.</p>
<p>5. Regulatory Guide 1.30, Quality Assurance Requirements for the Installation, Inspection, and</p>	<p>The UFSAR Regulatory Guide entries are supported by general reference to site UFSARs (i.e.: qualified IAW site</p>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Testing of Instrumentation and Electric Equipment</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.30 on page 1.8-20.)</i></p>	<p>specific commitments, technical specifications etc.) in QATR Appendix C sub-section 1.2 in the 1<sup>st</sup> paragraph.</p> <p>Regulatory Guide 1.30 endorses ANSI N45.2.4 (1972) and is replaced by NQA-2-1989 Part 2.4. NQA-2 endorses IEEE Standard 336-1985, "Power Inst. and Control." This is also delineated in NQA-1-1994 as Subpart 2.4.</p> <p>Modify HCGS UFSAR section 1.8.1.30 to recognize NQA-1-1994 Subpart 2.4 in lieu of ANSI N45.2.4. The entry for RG 1.30 in HCGS UFSAR section 17.2.2 can be removed. No changes are required to the QATR Appendix C.1.2.</p> <p>Note: Based on the challenge reviews it was decided to not make any changes to UFSAR section 1.8.1.30. The QATR, Appendix C commits to Reg. Guide 1.30 with no exceptions.</p>
<p>6. Regulatory Guide 1.33, Quality Assurance Program Requirements (Operation)</p> <p><i>(Note: This entry is listed with 2 exceptions in UFSAR section 1.8.1.33 on page 1.8-22.)</i></p>	<p>The 2 exceptions listed in the HCGS UFSAR in section 1.8.1.33 are addressed in the QATR and are no longer needed. Remove the exceptions wording from the HCGS UFSAR section 1.8.1.33.</p> <p>The entry for RG 1.33 in HCGS UFSAR section 17.2.2 can be removed.</p> <p>Modify RG 1.33 entry in UFSAR HCGS section 1.8.1.33 to recognize NQA-1-1994 instead of ANSI N45.2.</p> <p>ANSI/ANS 3.2-1982 is <u>not listed</u> in Appendix C.1.1 and needs to be added for HCGS.</p> <p>The ANSI N18.7-1976/ANS 3.2 entry in QATR Appendix C.1.1 needs HCGS added.</p> <p>RG 1.33 is included in QATR Appendix C.1.2 (no changes).</p> <p>Actions complete, see QATR Appendix C.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>7. Regulatory Guide 1.37, Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water Cooled Nuclear Power Plants</p> <p><i>(Note: This entry is listed with 5 clarifications in UFSAR section 1.8.1.37 on page 1.8-23.)</i></p>	<p>ANSI N45.2.1 was replaced by NQA-2, 1989 Part 2.1 and is included in NQA-1-1994 as Subpart 2.1. Use NQA-1-1994 in lieu of ANSI N45.2.1, N45.2.3, N45.2.6, N45.2.9, and N45.2.10 series standards.</p> <p>The 5 HCGS clarifications are addressed by using NQA-1-1994 and the QATR and are no longer required.</p> <p>Remove entry for RG 1.37 in the HCGS UFSAR, section 17.2.2. Modify entries in HCGS UFSAR 1.8.1.37 to recognize NQA-1-1994 and Subpart 2.1 in lieu of the ANSI N45.2.1 series standards. RG 1.37 is listed in QATR Appendix C 1.2, no further actions needed.</p> <p>Note: Commitment to Reg. Guide 1.37 is made in Appendix C of the QATR. The statement in Section 1.8.1.37 needs to be changed at the next revision to remove reference to NQA 1, Sub-Part 2.1.</p>
<p>8. Regulatory Guide 1.38, Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage, and Handling of Items for Water Cooled Nuclear Power Plants.</p> <p><i>(Note: This entry is listed with 6 clarifications in UFSAR section 1.8.1.38 on page 1.8-23.)</i></p>	<p>ANSI N45.2.2 was replaced by NQA-2-1989 Part 2.2 and is included in NQA-1-1994 as Subpart 2.2. Use NQA-1-1994 in lieu of ANSI N45.2.2.</p> <p>Three HCGS clarifications are addressed by using NQA-1-1994 and the QATR and are no longer required.</p> <p>Transfer the 3 remaining HCGS clarifications that are not addressed by the Exelon QATR to Appendix C.1.3 using a site-specific entry.</p> <p>Modify HCGS 1.8.1.38 to recognize NQA-1-1994 and Subpart. 2.4. Remove entries for RG 1.38 in the HCGS UFSAR, sections 17.2.2. RG 1.38 is listed in QATR Appendix C.1.2 and no changes are required to this section.</p> <p>Action complete.</p>
<p>9. Regulatory Guide 1.39, Housekeeping Requirements for Water-Cooled Nuclear Power Plants</p> <p><i>(Note: This entry is listed with 2 clarifications in UFSAR section 1.8.1.39 on page 1.8-25.)</i></p>	<p>ANSI N45.2.3 was replaced by NQA-2-1989, Part 2.3 and is included in NQA-1-1994 as Subpart 2.3. Use NQA-1-1994 in lieu of ANSI N45.2.3.</p> <p>Transfer the 2 HCGS clarifications to the Exelon QATR to</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Appendix C.1.3 using a site-specific entry and remove the appropriate text from section 1.8.1.39.</p> <p>Modify the entries in HCGS 1.8.1.38 to recognize NQA-1-1994 and Subpart 2.3. Remove the entry for RG 1.39 in the HCGS UFSAR, section 17.2.2. RG 1.39 is listed in QATR Appendix C .1.2, no further changes required to this section.</p> <p>Action complete.</p>
<p>10. Regulatory Guide 1.52, Design, Testing, and Maintenance Criteria for Atmosphere Cleanup System Air Filtration and Absorption Units of Light Water Cooled Nuclear Power Plants</p> <p><i>(Note: This entry is listed with no exceptions in UFSAR section 1.8.1.52 on page 1.8-37.)</i></p>	<p>QATR Appendix C.1.1 supports this RG may be unique to a site-specific UFSAR (such as HCGS). Since the RG is listed in HCGS UFASR, then RG 1.52 would apply to this sites using the rational contained in Appendix C.1.1.</p> <p>Delete entries from HCGS USFAR Section 17.2.2 and retain entry in 1.8.1.52. Add RG 1.52 to the QATR Appendix C.1.2 to support HCGS commitment.</p> <p>Action complete.</p>
<p>11. Regulatory Guide 1.54, QA Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.54 on page 1.8-39.)</i></p>	<p>QATR Appendix C.1.1 supports RG 1.54 may be unique to a site-specific UFSAR. Since the RG is listed in the HCGS UFSAR and with existing clarifications for this RG in the Exelon QATR (OCNGS/TMI), then RG 1.52 would apply to these sites using the rational contained in Appendix C.1.1.</p> <p>Delete entries from HCGS USFAR section 17.2.2 when the QATR is approved for use. Retain entry in HCGS UFSAR 1.8.1.54. Add RG 1.54 to Appendix C.1.2 to support HCGS, and Exelon (OCNGS/TMI) commitments.</p> <p>Action Complete.</p>
<p>12. Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel</p> <p><i>(Note: This entry is listed with 1 exception in UFSAR section 1.8.1.58 on page 1.8-41.)</i></p>	<p>The NRC withdrew this RG in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.6 was replaced by NQA-1-1989 (2S-1 &amp; 2A-1) and is included in NQA-1-1994 (2S-1 through 2S-4 and Appendix 2A-1 through 2A-4).</p> <p>Use NQA-1-1994 in lieu of ANSI N45.2.6. Modify the entries in HCGS UFSAR 1.8.1.58 recognize NQA-1-1994</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>and remove the exceptions wording (as addressed by NQA-1-1994 Supplement 2S-1, Sections 2.5 &amp; 2.6).</p> <p>Remove RG 1.58 entries in the HCGS UFSAR, section 17.2.2. RG 1.58 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Action Complete</p>
<p>13. Regulatory Guide 1.64, Quality Assurance Requirements for the Design of Nuclear Power Plants</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.64 on page 1.8-43.)</i></p>	<p>The NRC withdrew RG 1.64 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.11 was replaced by NQA-1-1989, 3S-1 &amp; Appendix 3A-1, and is included in NQA –1-1994.</p> <p>Use NQA-1-1994 in lieu of N45.2.11. Remove the RG 1.64 reference from HCGS UFSAR section 17.2.2. Modify UFSAR HCGS section 1.8.1.64 to recognize NQA-1-1994. RG 1.64 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Action Complete</p>
<p>14. Regulatory Guide 1.74, Quality Assurance Terms and Definitions</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.74 on page 1.8-57.)</i></p>	<p>The NRC withdrew RG 1.74 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.10 was replaced by NQA-1-1983 and is included in NQA-1-1994 in the “Introduction” as (4).</p> <p>Modify HCGS UFSAR 1.8.1.74 to recognize NQA-1-1994 in lieu of ANSI N45.2.10. Remove the RG 1.74 reference from the HCGS UFSAR section 17.2.2. RG 1.74 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Action Complete</p>
<p>15. Regulatory Guide 1.88, Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records</p> <p><i>(Note: This entry is listed with 11 exceptions in UFSAR section 1.8.1.88 on page 1.8-71.)</i></p>	<p>The NRC withdrew RG 1.88 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.9 was replaced by NQA-1-1983 17S1 &amp; Appendix 17A-1, and is included in NQA-1-1994.</p> <p>Modify HCGS UFSAR section 1.8.1.88 to recognize NQA-1-1994 in lieu of N45.2.9 and remove the 11 reconciled exceptions. Remove the RG 1.88 reference from the HCGS UFSAR section 17.2.2. RG 1.88 is <u>not</u></p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p><u>listed</u> in QATR Appendix C.1.2 and no changes are required for this section. Action Complete</p>
<p>16. Regulatory Guide 1.94, Quality Assurance Requirements for Installation, Inspection, and Testing of Structural Concrete and Structural Steel during the Construction Phase of Nuclear Power Plants.</p> <p><i>(Note: This entry is listed with 6 exceptions and 5 clarifications in UFSAR section 1.8.1.94 on page 1.8-81.)</i></p>	<p>ANSI N45.2.5 was replaced by NQA-2-1989 Part 2.5 and is included in NQA-1-1994 as Subpart 2.5. The NQA-1 Standard supports all phases of Nuclear Plant construction and operation.</p> <p>Transfer the 6 exceptions and 5 clarifications from the HCGS UFSAR to a site-specific appendix in the QATR (Appendix C.1.3.).</p> <p>Modify HCGS UFSAR section 1.8.1.94 to recognize NQA-1-1994 Subpart 2.5 in lieu of ANSI N45.2.5. Remove the RG 1.94 reference from the HCGS UFSAR section 17.2.2. RG 1.94 is included in the QATR Appendix C.1.2 and no changes are required.</p> <p>Note: Based on the challenge review it was decided not to transfer the exceptions and clarifications noted in Section 1.8.1.94 to the QATR. Reference to NQA 1, Sub-Part 2.5 needs to be removed from Section 1.8.1.94 at the next revision.</p>
<p>17. Regulatory Guide 1.116, Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and System</p> <p><i>(Note: This entry is listed with 2 exceptions and 3 clarifications in UFSAR section 1.8.1.116 on page 1.8-134.)</i></p>	<p>RG 1.116 is "Active" with 0-R (5/77) being the latest Revision. ANSI N45.2.8 was replaced by NQA-2-1989, Part 2.8 and is included in NQA-1-1994 as Subpart 2.8.</p> <p>All exceptions and clarifications listed under RG 1.116 for HCGS are addressed through NQA-1-1994 and can be removed.</p> <p>Modify UFSAR section 1.8.1.116 to recognize NQA-1-1994 in lieu of ANSI N45.2.8-1975. Remove reference to RG 1.116 from the HCGS UFSAR (17.2.2) when the QATR is approved for use. RG 1.116 is included in the QATR Appendix C.1.2. and no changes are required.</p> <p>Note: During re-review of the QATR (after issuance) it was decided to re-instate the exceptions and clarifications noted in Section 1.8.1.116 and place them in Appendix C</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>of the QATR. Appendix C of the QATR currently commits to Reg. Guide 1.116 with no exceptions noted.. Also the reference to NQA 1, Sub-Part II needs to be removed.</p>
<p>18. Regulatory Guide 1.123, Quality Assurance Requirements for Control of Procurement of Items and Services for Nuclear Power Plants</p> <p><i>(Note: This entry is listed with 9 clarifications in UFSAR section 1.8.1.123 on page 1.8-140.)</i></p>	<p>The NRC withdrew RG 1.123 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.13 was replaced by NQA-1-1989 (4S-1, 7S-1, Appendix 4A-1, 7A-1 &amp; 7A-2) and is included in NQA-1-1994.</p> <p>All of the clarifications listed under RG 1.123 in the HCGS UFSAR are addressed through NQA-1-1994 and can be removed.</p> <p>Modify HCGS UFSAR section 1.8.1.123 to recognize NQA-1-1994 in lieu of N45.2.13-1976. Remove reference to RG 1.123 from the HCGS UFSAR (17.2.2). RG 1.123 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Action Complete</p>
<p>19. Regulatory Guide 1.137, Fuel-Oil Systems for Standby Diesel Generators</p> <p><i>(Note: This entry is listed with 1 exception in UFSAR section 1.8.1.137 on page 1.8-147.)</i></p>	<p>No need to list clarifications or exceptions in the QATR. Appendix C.1.1 supports RG 1.137 may be unique to a site-specific UFSAR (such as HCGS). Since the RG is listed in the HCGS UFASR, then RG 1.137 would apply to these sites using the rational contained in QATR C.1.1 and Appendix A.2.</p> <p>RG 1.137 is listed in the HCGS UFSAR section 17.2.2 and can be deleted. Add RG 1.137 QATR Appendix C.1.2 to support HCGS commitment.</p> <p>Action Complete</p>
<p>20. Regulatory Guide 1.143, Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light Water Cooled Nuclear Power Plants.</p> <p><i>(Note: This entry is listed with 3 clarifications in UFSAR section 1.8.1.143 on page 1.8-153.)</i></p>	<p>Transfer the clarifications listed in the HCGS UFSAR to QATR Appendix C.1.3.</p> <p>Delete the entries in HCGS UFSAR Sections 17.2.2. The QATR contains appropriate entry in Appendix C.1.2, no changes required.</p> <p>Note: Based on the challenge review it was decided to keep Section 1.8.1.143 as written in the UFSAR. The</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>QATR Appendix C refers back to the UFSAR for the exceptions and clarifications.</p>
<p>21. Regulatory Guide 1.144, Auditing of Quality Assurance Programs for Nuclear Power Plants</p> <p><i>(Note: This entry is listed with 1 exception in the UFSAR in section 1.8.1.144 on page 1.8-154.)</i></p>	<p>The NRC withdrew RG 1.144 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.12 was replaced by NQA-1-1989 18S-1 &amp; Appendix 18A-1, and is included in NQA-1-1994.</p> <p>The exception listed under RG 1.144 for the HCGS UFSAR is addressed through NQA-1-1994 and can be removed from UFSAR section 1.8.1.144.</p> <p>Modify UFSAR section 1.8.1.144 to recognize NQA-1-1994 in lieu of ANSI N45.2.12-1977. Remove reference to RG 1.144 from the HCGS UFSAR section 17.2.2. RG 1.144 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Note: During re-review of the actions taken to get to Rev. 0 of the QATR it was identified that removal of the commitment to Reg Guide 1.8.1.144 was not completed for Hope Creek as expected. It was completed for Salem. This administrative error has no effect since the exception noted allowed for sixty days to distribute an audit report to the CNO within 60 days. Currently we are procedurally required to complete and distribute an audit report within 3 working days but no later than 10 after the exit meeting.</p>
<p>22. Regulatory Guide 1.146, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants</p> <p><i>(Note: This entry is listed with no exceptions or clarifications in UFSAR section 1.8.1.146 on page 1.8-156.)</i></p>	<p>The NRC withdrew RG 1.146 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.23 was replaced by NQA-1-1989 2S-4 &amp; Appendix 2A-3, and is included in NQA-1-1994.</p> <p>Modify UFSAR for HCGS section 1.8.1.146 to recognize NQA-1-1994 in lieu of N45.2.23. Remove the RG 1.146 reference from the HCGS UFSAR section 17.2.2. RG 1.146 is <u>not listed</u> in QATR Appendix C.1.2 and no changes are required for this section.</p> <p>Action complete</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>23. BTP 9.5-1, Appendix A, Guidelines for Fire Protection for Nuclear Plants Docketed Prior to July 1, 1976.</p> <p><i>(Note: This entry is listed with 5 exceptions and 1 clarification in UFSAR section 1.8.1.120 on page 1.8-136.)</i></p>	<p>QATR Appendix A, section 2.4 "Fire Protection" outlines how the fire protection program is established within the company IAW 10CFR50 Appendix A and BTP 9.5-1 for each Exelon site. The exceptions and clarifications for HCGS FP Program can remain in the UFSAR and is consistent with the generating stations in the Exelon fleet.</p>
<p>Commitments to Regulatory Guides, with respect to revision level, exceptions, etc, are contained in Section 1.8.</p>	<p>Lead in sentence, not a requirement. The Regulatory Guides, exceptions, and clarifications contained in the HCGS UFSAR section 1.8 are modified as necessary to comply with NQA-1-1994 and the Exelon QATR.</p>
<p>The code QA requirements are used for the procurement of systems, components and structures covered by the ASME Boiler and Pressure Vessel Code Section III (classes 1, 2, and 3).</p>	<p>(Chapter 7, Paragraph 2.1.1.) The Company establishes measures to assure that purchased material, equipment, and services conform to the procurement documents for safety related and ASME code specifications as appropriate. This assurance is accomplished by controlling both the selection of procurement sources and acceptance of the product at the source and/or upon receipt at the appropriate location.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The standard QA program controls apply to Q-Listed code items following receipt at the station. In addition, applicable requirements of Regulatory Guide 1.38 are applied to ASME Code procurements where necessary to assure safe shipment.</p>	<p>(1.0) The purpose of this chapter is to define how the Company's QAP applies to those activities such as design, procurement, fabrication, installation, modification, maintenance, repair, refueling, operation, inspection, and tests related to systems, structures, and components. The QAP also applies to certain non-safety related structures, systems, components and activities to a degree consistent with their importance to safety. Policies, directives, procedures, guidelines, manuals, or instructions shall be reviewed, approved, distributed, and revised in accordance with administrative procedures.</p> <p>RG 1.38 endorses ANSI N45.2.2 and is replaced by NQA-2-1989 Part 2.2. This standard is included in NQA-1-1994 as Subpart 2.2 and is supported by sub-tier</p>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>procurement procedures. RG 1.38 is listed in Appendix C.1.2 and requires no changes.</p> <p>Conclusion: The QATR, NQA-1-1994, and procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p>The NRC shall be notified of changes made to this QA Program description as required by 10CFR50.54(a).</p>	<p>(2.7.) This Quality Assurance Manual (QAM) contains the Company's QAP. The QAM is made available to NRC, Company personnel, the Authorized Nuclear Inspector, and other regulatory authorities. The Company submits revisions to the QAP document (as a topical report) to the NRC for acceptance.</p> <p>Conclusion: The QATR and procedure governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Substantive organization changes to the QA program described herein will be submitted to the NRC within 30 days of implementation.</p> <p>Non-substantive organization changes will be identified in the periodic UFSAR updates submitted in accordance with 10CFR50.71(e).</p>	<p>(2.1.) The QAP is based upon 10CFR50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." The requirements of 10CFR50.54, "Conditions of License," are included in the basis for the QAP.</p> <p>(2.7.) The Company submits revisions to the QAP document (as a topical report) to the NRC for acceptance.</p> <p>Discussion: 10CFR50.54(a)(3) requires that changes to the QAP description that do not reduce commitments must be submitted to the NRC in accordance with 10CFR50.71(e). QATR updates are administratively controlled by NO-AA-400-001, "Exelon/Amergen Quality Assurance Topical Report Changes" and implements regulatory requirements. The Exelon process is justified by 10CFR50.54(a)(3)(i) &amp; (ii) and SER dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The station maintains a station administrative procedures (SAP) manual. Regulatory Guide 1.33 requires that plant activities affecting quality-related items and services be conducted in accordance with written administrative controls prepared by management. The procedures and instructions by which plant activities are performed are prepared, reviewed and approved in accordance with NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes".</p> <p>Procedures cannot be implemented unless the review/approval process is accomplished. The Nuclear Administrative Procedures Manual provides a means to accommodate on-the-spot changes to sub tier-implementing procedures. The routine practice for revising a procedure is to repeat the original review and approval sequence.</p>	<p>(2.4.) The Company's total program for providing administrative controls and quality assurance is incorporated in many diverse documents. The Company's nuclear document hierarchy describes the implementation of the QAP. Approved implementing procedures and instructions are written to the extent necessary to implement the quality requirements of 10CFR50 Appendix B. Line, staff, administrative, and quality oversight organizations issue and control these implementing procedures. All activities affecting quality are described in sufficient detail to assure quality.</p> <p>(Chapter 5, Paragraph 2.2.) Procedures shall be prepared, reviewed, approved, and used as prescribed in writing, and shall contain step by step instructions in the degree of detail necessary for qualified individuals to perform the required function or task. Where appropriate, these procedures will include checklists containing the necessary attributes to be observed or measured.</p> <p>(Continuation) These documents shall include or reference appropriate quantitative or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished. The procedures will be independently reviewed and evaluated by other involved company organizations with interface responsibilities and the comments forwarded to the issuing department.</p> <p>(Chapter 5, Paragraph 2.3.1.5.) Temporary Changes Temporary changes to procedures required by 2.3.1.1 (above) may be made provided: the intent of the original procedure is not altered, the change is approved by two members of the plant management staff knowledgeable in the areas affected by the procedures, at least one of whom holds a Senior Reactor Operator's License on the unit affected, and the change is documented, reviewed, and approved (in accordance with 2.3.1 above) within 14</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>days of implementation.</p> <p>(Chapter 6, Paragraph 1.0.) Measures shall be established to control and coordinate the classification, review, approval, issuance, revision, and change of documents that prescribe methods or provide the technical and/or quality requirements for activities and items within the scope of this program. These measures shall ensure that such documents are reviewed for adequacy, approved for release and use, and distributed to the location where the activity is performed</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Implementation of the QA program is verified by means of monitoring, audits, performance based assessments, and quality verifications conducted by NOS.</p> <p>NOS reviews and assesses problems affecting quality that occur during the operational phase. Items subject to review include:</p> <ul style="list-style-type: none"> <li>– Documented nonconformances occurring at the supplier's facility and those identified during receiving, storage, installation, test, and operation, e.g., Receiving Nonconformance Reports, Work Orders, Licensee Event Reports, etc.</li> <li>– Documented corrective actions taken on conditions adverse to quality and actions to prevent recurrence on significant conditions adverse to quality.</li> <li>– NRC inspection findings, notifications, bulletins, etc.</li> </ul>	<p>(Chapter 18, Paragraph 1.0.) A documented, comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness. Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Chapter 18, Paragraph 2.2.) Assessments, audits, or surveys of vendors and their sub-tier suppliers are performed to a pre-established schedule. Audits are performed on a triennial basis. Documented supplier performance monitoring is performed in accordance with approved procedures as an acceptable alternate to the</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>performance of the annual evaluation of suppliers.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p>Discussion: NOS/NOVA procedures and templates include a sample of station non-conformances and those of a supplier's facility.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Director-NOS or his designees, have the authority to stop work through the issuance of a Stop Work Order where continuance of an activity would seriously compromise quality or constitute a persistent and deliberate failure to correct a significant condition adverse to quality.</p>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions.</p> <p>Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>- Initiating stop work, ordering unit shutdown, or request any other actions deemed necessary to avoid unsafe plant conditions or a significant violation of the QAP.</li> <li>- Overseeing nuclear site NOS activities.</li> <li>- Periodic assessments to determine that the Quality Assurance Policy is being carried out.</li> <li>- Periodically apprising the President and CNO and the Nuclear Safety Review Board of the status of the quality assurance aspects at Company facilities and immediately apprise them of significant problems affecting quality.</li> <li>- Verifying implementation of solutions for significant conditions adverse to quality</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p style="text-align: center;">identified by NOS.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS reports significant conditions adverse to quality affecting the quality assurance program to respective management along with:</p> <ol style="list-style-type: none"> <li>1. Measures taken to improve QA program controls</li> <li>2. Appropriate recommendations to achieve compliance with applicable requirements.</li> </ol>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization.</p> <p>This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions.</p> <p>Functional responsibilities include:</p> <ul style="list-style-type: none"> <li>- Overseeing nuclear site NOS activities.</li> <li>- Periodic assessments to determine that the Quality Assurance Policy is being carried out.</li> <li>- Periodically apprising the President and CNO and the Nuclear Safety Review Board of the status of the quality assurance aspects at Company facilities and immediately apprise them of significant problems affecting quality.</li> <li>- Verifying implementation of solutions for significant conditions adverse to quality identified by NOS.</li> </ul> <p>(Chapter 16, Paragraph 2.5.) The Company documents the identification of significant conditions adverse to quality, the cause of the condition, the corrective action taken, and reports these items to the appropriate levels of management, NSRB, and as applicable, PORC. If the identified issue is not an indication of a significant failure in any portion of the QAP, the Company does not require reporting to management.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Management administrative procedures provide all personnel with awareness and direction for reporting of defects and noncompliance pursuant to 10CFR21.</p>	<p>(2.1.) The requirements of 10CFR21, Reporting of Defects are also included. The Company is committed to carrying out the provisions of various NRC regulatory guides and industry standards, which further define Quality Assurance Program requirements (see attached Appendix C).</p> <p>Discussion: Company procedures delineate the thresholds and steps necessary for reporting defects and non-compliances required by 10CFR21.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The QA program requires that safety-related activities and activities affecting the fire protection of safety-related areas, be accomplished under suitably controlled conditions.</p> <p>The program takes into consideration the need for procedures, special controls, cleanliness, special processes, test equipment, tools, and skills to obtain the required quality and the verification of quality by inspection, test, examination, monitoring, assessments and independent review and audit.</p> <p>These activities include, but are not limited to, designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, reworking, repairing, refueling, and modifying.</p>	<p>(Appendix A, Paragraph 2.4.) 10CFR50 Appendix A, General Design Criteria (GDC) 3 requires that the Company's nuclear facilities have an established fire protection program that provides fire protection features such that the adverse effect of fires on structures, systems and components important to safety is minimized.</p> <p>(Appendix A, Paragraph 2.4.) The quality assurance program established for these fire protection SSC's ensures that design, procurement, instruction, procedures, drawings, inspection, installation, testing, maintenance, operations, nonconforming items, corrective action, records, audits and administrative controls meet the applicable Quality Assurance guidelines as described in the applicable edition of Branch Technical Position (BTP) 9.5-1 for each Exelon site.</p> <p>(Appendix A, Paragraph 2.4.) Engineering determines what fire protection SSC's protect Structures, Systems, and Components important to safety. Engineering also establishes the requirements for the design, procurement, fabrication, installation and/or modification of these fire</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>protection SSC's.</p> <p>Routine testing of fire protection systems assures reliability. All other fire protection equipment and supplies will be of commercial quality, in accordance with National Fire Protection Association (NFPA) guidelines.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel who have the responsibility to implement the QA program also have the responsibility and authority to escalate unresolved quality problems to the level of management necessary to effect resolution. Escalation is applied by NOS to increasingly higher levels of management, up to the SVP/CNO, as required.</p>	<p>(Chapter 18, Paragraph 2.1.5.) Findings, deficiencies and recommendations of each audit and assessment shall be reported to appropriate site management and the management position responsible for NOS.</p> <p>Chapter 18, Paragraph 2.1.5.) All findings of noncompliance with NRC requirements, and any significant nuclear safety or quality issues requiring escalated action, will be directed through the management position responsible for NOS to the President and CNO in accordance with procedural requirements.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel performing Q, F, and R-designated activities are trained or indoctrinated as necessary to assure that suitable proficiency is achieved and maintained.</p> <p><i>(Note: "Q" designated equipment identifies those activities and services to which the operational QAP applies during operations.</i></p> <p><i>"F" designated equipment relates to fire protection and "R" designated equipment relates to the radioactive waste management system.)</i></p>	<p>(2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained. A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel.</p> <p>(2.5.) The indoctrination and training programs are established by on-site and by off-site organizational units responsible for the performance or verification of activities within the scope of the QAP. Indoctrination, training, and qualification programs are established such that:</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"><li>- Personnel responsible for performing quality-affected activities are instructed as to the purpose, scope, and implementation of the quality-related manuals, instructions, and procedures.</li><li>- Personnel verifying activities affecting quality are trained and qualified in the principles, techniques, and requirements of the activity being performed.</li><li>- Formal training and qualification programs documentation includes the objective, content of the program, attendees, and date of attendance.</li><li>- Proficiency tests are given to those personnel performing and verifying activities affecting quality, and the acceptance criteria are developed to determine if individuals are properly trained and qualified.</li><li>- Certificate of qualification clearly delineates the specific functions personnel are qualified to perform and the criteria used to qualify personnel in each function.</li></ul> <p>(2.5.) Proficiency of personnel performing and verifying activities affecting quality is maintained by re-training, re-examining, re-qualifying, and/or re-certifying as determined by management or program commitment.</p> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application "Augmented Quality."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Personnel outside the NOS organization who perform inspections and tests are trained and qualified in NOS concepts and practices.</p> <p>Orientation is provided for new employees entering NOS from other organizations within PSEG and from outside the company.</p> <p>An outline of the course content and program objective is contained in the NOS training and certification program. The training and certification program is designed to familiarize the employee with:</p> <ol style="list-style-type: none"> <li>1. Codes, regulations, specifications, etc, applicable to nuclear and other power generation equipment</li> <li>2. NOS procedures, instructions, specifications, documentation, records, etc</li> <li>3. Auditing and performance based assessment objectives and techniques</li> <li>4. Operational Quality Assurance Program</li> <li>5. Quality Assurance Operational Philosophy</li> <li>6. Other organizations within PSEG with which NOS interface</li> </ol>	<p>(2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained.</p> <p>(2.5.) A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel.</p> <p>(2.5.) The indoctrination and training programs are established by on-site and by off-site organizational units responsible for the performance or verification of activities within the scope of the QAP.</p> <p>(2.5.) Indoctrination, training, and qualification programs are established such that:</p> <ul style="list-style-type: none"> <li>- Personnel responsible for performing quality-affected activities are instructed as to the purpose, scope, and implementation of the quality-related manuals, instructions, and procedures.</li> <li>- Personnel verifying activities affecting quality are trained and qualified in the principles, techniques, and requirements of the activity being performed.</li> <li>- Formal training and qualification programs documentation includes the objective, content of the program, attendees, and date of attendance.</li> <li>- Proficiency tests are given to those personnel performing and verifying activities affecting quality, and the acceptance criteria are developed to determine if individuals are properly trained and qualified.</li> <li>- Certificate of qualification clearly delineates the specific functions personnel are qualified to perform and the criteria used to qualify personnel in each function.</li> </ul>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>- Proficiency of personnel performing and verifying activities affecting quality is maintained by re-training, re-examining, re-qualifying, and/or re-certifying as determined by management or program commitment.</li> </ul> <p>Discussion: The specific details for NOS training and qualification requirements are contained with sub-tier procedures.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Nuclear Training Department administers the formal QA orientation training sessions for personnel outside the NOS organization who perform safety related activities.</p> <p>The content of these training programs dates of the sessions, and names of the attendees and their individual performance evaluations are documented and retained.</p> <p>Personnel requiring certification are evaluated to establish their qualifications for their respective level and discipline. Recertification is based upon demonstrated continued proficiency or requalification, if necessary.</p>	<p>(2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained. A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel. The indoctrination and training programs are established by on-site and by off-site organizational units responsible for the performance or verification of activities within the scope of the QAP.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel requiring certification in accordance with Regulatory Guide 1.58 are limited to personnel who perform inspection, test and non-destructive examination (NDE) activities, personnel who perform post design modification testing, and In-service Inspection Services personnel who perform NDE and tests required by the In-service Inspection Program.</p> <p>Those above personnel who perform visual examination</p>	<p>The NRC withdrew RG 1.58 in favor of ASME NQA-1-1983. The ANSI standard endorsed by this RG was replaced by NQA-1-1989 and is included in NQA-1-1994.</p> <p>(2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained. A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel.</p> <p>(Chapter 9, Paragraph 2.4.) Training and certification of</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>(VT1, 2, 3) and NDE in accordance with the In-service Inspection Program are trained, qualified and certified in accordance with a program which additionally meets the prescribed supplementary requirements of ASME Section XI.</p> <p>These personnel receive a periodic training needs assessment to identify additional supportive training needs, as well as, to evaluate individual post-training performance. The assessment period is in accordance with the requirements of ASME Section XI.</p>	<p>personnel associated with nondestructive examination are carried out in accordance with the requirements of ASME NQA-1 and ASME Section XI. A Level III certified person administers all ASME Code examination activities.</p> <p>Discussion: NQA-1-1994 Supplement 2S-2. “Supplementary Requirements for the Qualification of Non-Destructive Examination Personnel” provides amplified requirements for the qualification of personnel who perform RT, MT, UT, PT, ET, NRT, LT, AE, and VT (hereafter called NDE) to verify conformance to specified requirements. SNT-TC-1A (12/1988) shall apply as requirements to NDE personnel covered by this supplement.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Personnel who are qualified and requalified for their respective level and discipline in accordance with Regulatory Guide 1.8 and ANSI/ANS - 3.1 and direct or supervise the conduct of individual preoperational, startup, and operational inspections and tests, including Technical Specification Surveillances and periodic inspection and test of fire protection equipment, do not require certification per Regulatory Guide 1.58 and ANSI N45.2.6 1978.</p>	<p>The NRC withdrew RG 1.58 in favor of ASME NQA-1-1983. ANSI/ANS 3.1 is supported in Appendix C, Paragraph 1.1 and Regulatory Guide 1.8 is supported in Paragraph 1.2.</p> <p>(Chapter 10, Paragraph 2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current. Qualified personnel perform inspections.</p> <p>(Chapter 11, Paragraph 2.1.1.) The test program includes, as appropriate, procedures to ensure those structures, systems, subsystems, and components will perform in service. Testing is conducted by appropriately trained and qualified personnel. The extent of testing shall be based on the complexity of the modification, replacement, or repair. The test program covers all required tests.</p> <p>Discussion: NQA-1-1994 Supplement 2S-1 provides for the Qualification of Inspection and Test Personnel and 2S-4 provides generic requirements for Personnel</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Indoctrination and Training. This is for persons who manage activities affecting quality and assures suitable proficiency is maintained.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>When a single inspection or test requires implementation by a team or group, personnel not meeting the requirements of Regulatory Guide 1.58 and ANSI N45.2.6 1978 may be used in data-taking assignments or in plant or equipment operation provided they are supervised or overseen by an individual participating in the inspection, examination, or test and the individual is qualified and requalified for their respective level and discipline in accordance with either Regulatory Guide 1.8 and ANSI/ANS - 3.1 or the individual is certified in accordance with Regulatory Guide 1.58 and ANSI N45.2.6 1978 as appropriate.</p>	<p>The NRC withdrew RG 1.58 in favor of ASME NQA-1-1983. The ANSI N45.2.6 standard endorsed by this RG was replaced by NQA-1-1989/1994. ANSI/ANS 3.1 is supported in Appendix C, Paragraph 1.1 and Regulatory Guide 1.8 is supported in Paragraph 1.2.</p> <p>(Chapter 10, Paragraph 2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current. Qualified personnel perform inspections.</p> <p>(Chapter 11, Paragraph 2.1.1.) Testing is conducted by appropriately trained and qualified personnel. The extent of testing shall be based on the complexity of the modification, replacement, or repair. The test program covers all required tests.</p> <p>Discussion: NQA-1-1994 Supplement 2S-1, Paragraph 2.1 "Qualification Requirements" states that when a single inspection or test requires implementation by a team or group, personnel not meeting the requirements of this part (Part 1), may be used in data-taking assignments or in plant or equipment operation, provided they are supervised or overseen by a qualified individual.</p> <p>NQA-1-1994 Supplement 10S-1 in paragraph 3.2 requires that each person who verifies conformance of work activities for purposes of acceptance shall be qualified to perform the assigned inspection task. Inspections by persons during on-the-job training for qualification shall be performed under the direct observation and supervision of a qualified person and verification of conformance shall be by the qualified person until</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>certification is received.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Regulatory Guide 1.58 and ANSI N45.2.6 1978 do not apply to NRC - Licensed Operators and Senior Operators for the performance of duties specified in 10CFR55 "Operator Licenses".</p>	<p>The NRC withdrew RG 1.58 in favor of ASME NQA-1-1983. The ANSI standard endorsed by this RG was replaced by NQA-1-1989 and is included in NQA-1-1994 as 2S-1 through 2S-4, and Appendix 2A-1 through 2A-4.</p> <p>Discussion: The Supplements address Inspection and Test Personnel, NDE Personnel, Audit Personnel and generic requirements for Personnel Indoctrination and Training. These sections do not apply to licensed operators; therefore the text in the left column can be eliminated.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Nuclear Training Center is responsible for the licensed operator training and retraining, in addition to other technical and supervisory training programs. General Employee Training, which is required for all personnel having access to the station, is the responsibility of the Training Manager. Training programs of supporting organizations are described in their manuals, which are required to comply with the QA program.</p>	<p>(2.5.) Formal indoctrination and training programs for personnel performing or verifying activities within the scope of this Plan are established and maintained. A training organizational element is established and staffed with qualified instructors and is responsible for planning, scheduling, developing and providing training to Company personnel. The indoctrination and training programs are established by on-site and by off-site organizational units responsible for the performance or verification of activities within the scope of the QAP.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<b>Documents</b>	
<ol style="list-style-type: none"> <li>1. CC-AA-102, "Design Input and Configuration Change Impact Screening"</li> <li>2. CC-AA-11, "Non-Conformances."</li> <li>3. CC-MW-101, "Engineering Change Request"</li> <li>4. Exelon Organizational Charts.</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

5. Exelon QATR, Revision 76, Chapters 1, 2, 7, 15, 16, 17, 18.
6. Exelon Reportability Reference Manual.
7. Exelon Series Procedures ER-AA, ER-AB, ER-AP, ER-MA, ER-MW, RM-AA, TQ-AA.
8. Hope Creek UFSAR Section 17.2.2 and 1.8.
9. IT-AA-2001, "IT Response to Emergent Issue Process."
10. IT-SH-9001, "Information Technology Response to Emergent Issues Process."
11. LS-AA-105, "Operability Determinations"
12. LS-AA-107, "UFSAR Update Procedure."
13. LS-AA-115, "Operating Experience Procedure"
14. LS-AA-120, "Issue Identification and Screening Process."
15. LS-AA-125, "Corrective Action (CAP) Procedure"
16. LS-AA-127, "Passport Action Tracking Management Procedure"
17. LS-AA-2002, "Significance Determination Process Evaluation"
18. LS-OC-125, "Corrective Action Program (CAP) Procedure"
19. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
20. NC.LR-AP.ZZ-0030, Commitment Management."
21. NC.LR-AP.ZZ-0054, "Operating Experience Program."
22. NC.LR-DG.ZZ-0003, "Commitment Change Process."
23. NC.NA-AP.ZZ-0066, "Control of Special Processes."
24. NC.QN-AP.ZZ-0003 (Q), "Revision to the Quality Assurance Program."
25. NO-AA-1007, "Nuclear Oversight Station Status Reporting and Issues Tracking."
26. NO-AA-1008, "Nuclear Oversight Management Review Meeting."
27. NO-AA-1013, "Nuclear Oversight Trending and Analysis."
28. NO-AA-1022, "Nuclear Oversight Records Management."
29. NO-AA-1024, "Nuclear Oversight Documenting Objective Evidence."
30. NO-AA-200-002, "Nuclear Oversight Regulatory Audit Procedure"
31. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."
32. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
33. NO-AA-200-003, "Nuclear Oversight Regulatory Performance Assessment"
34. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
35. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
36. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
37. NO-AA-21, "Nuclear Oversight Audit Process Description."
38. NO-AA-23, "Nuclear Oversight Vendor Audit Group Process Description."
39. NO-AA-30, "Independent Inspection Process Description."
40. NO-AA-300-001, "Inspection Planning and Execution of Quality Inspection Activities."
41. NO-AA-300-001-1001, "Nuclear Oversight Independent Inspection Plan."
42. NO-AA-400-001, "Exelon/Amergen Quality Assurance Topical Report Changes."
43. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
44. NQA-1-1994, Basic Requirement 2, "Quality Assurance Program."
45. NQA-1-1994, Supplement 2S-1, "Supplementary Requirements for the Qualification of Inspection and Test

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

- Personnel.”
46. NQA-1-1994, Supplement 2S-2, “Supplementary Requirements for the Qualification of Nondestructive Examination Personnel.”
  47. NQA-1-1994, Supplement 2S-3, “Supplementary Requirements for the Qualification of Quality Assurance Program Personnel.”
  48. NQA-1-1994, Supplement 2S-4, “Supplementary Requirements for Personnel Indoctrination and Training.”
  49. NUREG-0800; Standard Review Plan; Section 17, “Quality Assurance.”
  50. OP-AA-106-101-1001, “Event Response Guidelines”
  51. OP-AA-106-101-1006, “Operational and Technical Decision Making Process”
  52. PSEG Organizational Charts.
  53. RM-AA-101, “Records Management Program.”
  54. Safety Evaluation Report Dated December 24, 2002, “Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants.”
  55. SH.SA-AP.ZZ-0030, “Response/Commitment Tracking Program.”
  56. TQ-AA-112, “Nuclear Oversight Training, Qualification, and Certification.”
  57. WC-AA-106, “Work Screening and Processing”

### Analysis

Conclusion:

- Many of the entries in HCGS UFSAR 17.2.2 and 1.8 are adequately addressed within the scope of the QATR. However, changes to the site UFSAR need to be made to assure proper transition of commitments and applicable sections of UFSAR Chapter 17.2.2 to the QATR
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), & (v).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

### Actions / Comments

1. Numerous changes need to be made to the site UFSAR and as additions to the QATR product. Use the individual entries made in this analysis to complete the actions required for transition.
- Note: Actions complete, see clarifications to clarify where actions were not completed as proposed based on the

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

challenge reviews. Also note that Salem/Hope Creek is only committed to NQA 1-1994 Part I Basic Requirements and Supplemental Requirements for Nuclear Facilities and Appendix 17A-1 Non-Mandatory Guidance on Quality Assurance Records. References to NQA 1, Part II Sub-Parts placed in Section 1.8 were not correct and are scheduled to be removed during the next update to the UFSAR.

Re-Review Completed by: W. M. Eckman - 07/25/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/3/2006
---------------------	------------------	--------------	----------



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 15 &amp; 13)</b>	17.2.3 - Design Control	<b>Chapter No. (Rev. 76)</b>	3 – Design Control
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>The scope of the design control program includes design activities associated with the preparation and review of design documents, including the correct translation of applicable regulatory requirements into design modification, procurement, and procedural documents.</p>		<p>(1.0.) The purpose of this chapter is to establish the requirements and control measures for assuring design bases and regulatory requirements are correctly translated into design documents.</p> <p>(2.2.) The Company has the responsibility to properly translate applicable safety analysis reports, regulatory requirements, ASME Code requirements, and design bases into specifications, drawings, procedures and instructions.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>The design control program includes activities such as field design engineering, associated computer programs, compatibility of materials, and accessibility for in-service inspection, maintenance, and repair.</p>		<p>(2.3.) Included in this scope of activities are considerations for field design engineering, fire hazards, human factors, physics, seismic, stress, compatibility of materials, application of special process, associated computer programs, thermal, hydraulic, ALARA and radiation factors, the safety analysis accident scenarios, and accessibility for in-service inspection, maintenance and repairs, and quality standards.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Issuance of new drawings and revisions to existing drawings require the implementation of a design change.</p>		<p>(2.3.) The Company is responsible for design changes, performs detailed design activities, and issues design documents in accordance with approved procedures. The responsible design organization shall prescribe and document design activities in a timely manner and to the level of detail necessary to permit verification that the design meets requirements.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The term design change as used throughout this document, shall apply to both design and configuration changes.</p>	<p>(2.1) Design activities are conducted to written procedures that include consideration of quality standards, quality assurance requirements, suitability of material parts, equipment, and processes, control of design interfaces, analytical or testing requirements, design basis, and configuration management.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>PSEG Nuclear engineering procedures provide implementation guidance for the intent of Regulatory Guide 1.64, "Quality Assurance Requirements for the Design of Nuclear Power Plants."</p>	<p>(2.1) Design activities are conducted to written procedures that include consideration of quality standards, quality assurance requirements, suitability of material parts, equipment, and processes, control of design interfaces, analytical or testing requirements, design basis, and configuration management.</p> <p>Discussion: The NRC withdrew RG 1.64 in favor of ASME NQA-1-1983 (see 56FR 36175, 7/31/91). ANSI N45.2.11 was replaced by NQA-1, 1989, 3S-1, Appendix 3A-1 and is included in NQA –1, 1994.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS will conduct engineering process audits, and performance based assessments, which include procedures contained within Engineering.</p>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization.</p> <p>(Chapter 1, Paragraph 2.2.3.3.) This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions. The management position responsible for NOS must meet the educational and experience requirements of ANSI/ANS 3.1. A staff of supervisory, administrative, and technical</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>personnel supports assessment and quality verification.</p> <p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP. (Chapter 18, "Assessments/Audits," and Appendix B, "Assessments.")</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Engineering Director has the following responsibilities:</p>	<p>(Chapter 1, Paragraph 2.2.3.2.) The management position responsible for engineering &amp; technical services provides oversight and support and is accountable for defining standard programs, processes, policies, procedures, delivering effective services and support, providing technical oversight of program implementation, and supporting the deployment and sharing of best practices throughout the nuclear organization in accordance with the QAP, regulatory requirements, and the ASME Code. Reporting to this position is a staff of management, administrative, and technical personnel. Functional areas of responsibility include;</p> <p>(2.1.) The Company has overall responsibility for design and design control activities including, preparing, reviewing, approving, and verifying design documents related to the plant's structures, systems, and components within the scope of the QAP. Additionally, the Company is responsible for reactor core design analysis, core design specifications and design reviews, for nuclear fuel and in-core components.</p> <ol style="list-style-type: none"> <li>1. Engineering that provides support to the nuclear stations.</li> </ol>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<ol style="list-style-type: none"> <li>1. Prepare and update detailed engineering and design documents, including drawings and specifications, for all systems, components, and structures.</li> <li>2. Specify applicable codes, standards, regulatory and quality requirements acceptance standards, and other design input in design documents.</li> <li>3. Identify systems, components, and structures that are covered by the quality assurance program.</li> <li>4. Perform design verification for systems, components, and structures covered by the QA Program.</li> <li>5. Perform 10CFR50.59 evaluations of proposed design changes, as required.</li> <li>6. Prepare documents for procurement of equipment, materials, and components.</li> <li>7. Recommend engineering consultants and laboratories for procurement services and coordinate their activities.</li> <li>8. Review design documents submitted by suppliers (including the Nuclear Steam Supply System (NSSS) supplier) and contractors.</li> <li>9. Specify, or approve as required, inspections and/or tests</li> <li>10. Designate whether they will seek the service of other qualified engineering organizations.</li> </ol>	<ol style="list-style-type: none"> <li>2. Design authority under the ASME Code. <i>(Note: Also see paragraph 2.2.)</i></li> <li>3. Configuration management programs.</li> <li>4. Special processes. <i>(Note: Also see paragraph 2.5.)</i></li> <li>5. Generic programs for technical and regulatory issues. <i>(Note: Also see paragraph 2.6 2<sup>nd</sup> paragraph.)</i></li> <li>6. A support staff provides the necessary discipline and expert support for setting technical policy, developing design standards, and performing engineering discipline reviews. This staff develops and supports common approaches for technical and regulatory engineering issues, as well as develops and coach's engineers.</li> <li>7. Corporate procurement engineering provides overall coordination and guidance of the nuclear organization's procurement engineering process and technical operations. This includes parts evaluation, upgrading of stock material, equivalent item evaluation, and examination and testing in accordance with the applicable ASME Code and Federal Regulations</li> <li>8. Laboratory services for implementing metrology related programs including calibration and maintenance of measuring and test equipment, technical services. <i>(Note: Also see paragraph 2.9.)</i></li> <li>9. Nuclear fuels management providing BWR/PWR nuclear fuel procurement and fabrication services, technical support to monitor fuel reliability and certain in-core components, design and licensing analyses for core reloads, safety analyses, and high level waste strategy. This position is responsible for reactivity management oversight and corporate support of reactor operations to ensure safe and reliable plant operations, as the manager of nuclear materials, and for controls and reports associated with special nuclear material accountability. <i>(Note: Also see paragraph 2.9 &amp;</i></li> </ol>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p style="text-align: center;">2.10.)</p> <p style="text-align: center;">10. Project management</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The responsible engineer is responsible for the identification and completion of design analyses. The purpose of design analysis is to assure that the technical design is accomplished in a planned, controlled, and correct manner. Types of design analyses include, but are not limited to, reactor physics, stress, seismic, thermal, hydraulic, radiation, and accident.</p>	<p>(2.1) The Company has overall responsibility for design and design control activities including, preparing, reviewing, approving, and verifying design documents related to the plant's structures, systems, and components within the scope of the QAP. Additionally, the Company is responsible for reactor core design analysis, core design specifications and design reviews, for nuclear fuel and in-core components.</p> <p>(2.1.) Qualified personnel perform detailed design activities or review and control design work involving electrical, mechanical, structural, and instrumentation and control designs. Design activities are conducted to written procedures that include consideration of quality standards, quality assurance requirements, suitability of material parts, equipment, and processes, control of design interfaces, analytical or testing requirements, design basis, and configuration management.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Design verification is performed on design analyses, drawings, specifications, and other design documents, as applicable. It is the process of reviewing, confirming, or substantiating the adequacy of design by one or more methods. Design verification is performed on changes to previously verified designs, including evaluation of the effects of those changes on the overall design. In general, design verification is completed prior to installation and in all cases is completed prior to placing the modified system or component into service.</p>	<p>(2.5.) Verification shall be performed in a timely manner. Design verification, for the stage of design activity accomplished, shall be performed prior to release for procurement, manufacture, construction, or release to another organization for use in other design activities provided sufficient data exists. Any unverified portion of the design shall be identified and controlled. In all cases the design verification shall be completed prior to relying upon the component, system, structure, or computer program to perform its function.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Design verification is performed by competent individuals or groups other than those who performed the original design with the following exception: a design verifier may be the design originator's supervisor, provided that he did not specify a singular design approach or rule out certain design considerations and did not establish the design inputs used in the design, or if the supervisor is the only individual competent to perform the verification.</p>	<p>(2.5.) The results of design verification shall be documented including the identification of the verifier. Design verification shall be performed by competent individual(s) other than those who performed the original design but may be from the same organization. This verification may be performed by the originator's supervisor, provided the supervisor did not specify a singular design approach, rule out certain design considerations, did not establish the design inputs used in the design, or the supervisor is the only individual in the organization competent to perform the verification.</p> <p>Cursory supervisory reviews do not satisfy the intent of design verification.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>This design verification provision is individually documented and approved in advance by the supervisor's management. Procedural control is established for design documents that reflect the commitments of the UFSAR; this control differentiates between documents that receive formal design verification by interdisciplinary or multi-organizational teams and those which can be reviewed by a single individual (a signature and date is acceptable documentation for personnel certification).</p>	<p>(2.5.) The results of design verification shall be documented including the identification of the verifier. Design verification shall be performed by competent individual(s) other than those who performed the original design but may be from the same organization. This verification may be performed by the originator's supervisor, provided the supervisor did not specify a singular design approach, rule out certain design considerations, did not establish the design inputs used in the design, or the supervisor is the only individual in the organization competent to perform the verification.</p> <p>Cursory supervisory reviews do not satisfy the intent of design verification.</p> <p>(2.5.) Verification shall be performed in a timely manner. Design verification, for the stage of design activity accomplished, shall be performed prior to release for procurement, manufacture, construction, or release to another organization for use in other design activities provided sufficient data exists. Any unverified portion of the design shall be identified and controlled. In all cases the design verification shall be completed prior to relying upon the component, system, structure, or computer program to perform its function.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Design documents subject to procedural control include, but are not limited to, specifications, calculations, computer programs, system descriptions, and drawings including flow diagrams, electrical single line diagrams, structural systems for major facilities, site arrangements, and equipment locations.</p> <p>Specialized reviews should be used when uniqueness or special design considerations warrant.</p>	<p>(Chapter 6, Paragraph 2.3.) Written document control procedures shall be established to provide for the control of approved documents. Documents that are controlled include, but are not limited to, the following items: as-built drawings, calibration procedures, computer codes and software, corrective action reports, design specifications, emergency operating procedures, engineering calculations, inspection and test reports, nonconformance reports, NOS procedures, operating procedures, purchase orders and related documents, safety analysis reports, supplier audit and surveillance procedures, technical specifications (station and Independent Spent Fuel Storage Installation), temporary and emergency procedure changes, topical reports, work instructions and procedures.</p> <p>Discussion: Reviews are addressed in NQA-1-1994 in 4.2. "Methods" where acceptable verification include, but are not limited to, any one or a combination of design reviews, alternate calculations, and qualification testing. NQA-1-1994, Supplement 3S-1, Sub-section 4.2.1 through 4.2.3, describes detailed steps for these features.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The responsibilities of the verifier, the areas and features to be verified, the pertinent considerations to be verified, and the extent of documentation are identified in procedures. Control of this function is assured through periodic NOS audits and performance based assessments.</p>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization.</p> <p>(Chapter 2, Paragraph 2.6.) The effectiveness of the QAP and its implementation is periodically reviewed by various organizations at various levels. The results of these reviews are documented in reports to senior management for evaluation and corrective action is initiated as required. The</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>effectiveness of the QAP is evaluated and reported by NOS through the monitoring, assessment, and inspection functions. Other organizational elements provide additional information/ evaluations as requested.</p> <p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Design verification methods comply with applicable requirements of ANSI N45.2.11 and may include, but are not limited to:</p> <ol style="list-style-type: none"> <li>1. Design reviews</li> <li>2. Alternate or independent calculations</li> <li>3. Qualification testing.</li> <li>4. Procurement Engineering Reviews</li> </ol>	<p>Design control measures shall be applied to verify the adequacy of design, such as by one or more of the following:</p> <ul style="list-style-type: none"> <li>– Performance of design reviews.</li> <li>– Use of alternate calculations.</li> <li>– Performance of qualification tests.</li> </ul> <p>(Chapter 1, Paragraph 2.2.3.2.) A support staff provides the necessary discipline and expert support for setting technical policy, developing design standards, and performing engineering discipline reviews. This staff develops and supports common approaches for technical and regulatory engineering issues, as well as develops and coach's engineers.</p> <p>Discussion: ANSI N45.2.11 was replaced by NQA-1-1989 (BR-3, 3S-1, and Appendix 3A-1) and is also included in NQA-1-1994.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>In the event that the verification method for design modifications is only by test, procedures and instructions will be written which include measures to ensure that:</p> <ol style="list-style-type: none"> <li>1. Criteria are provided to specify when verification should be by test.</li> <li>2. Where applicable, prototype, component or feature testing will be performed prior to installation of plant equipment. In those cases where this cannot be met, the testing will be deferred but not beyond the point when the installation would be irreversible.</li> <li>3. Tests will be performed under conditions that simulate the most adverse design conditions, as determined by analysis.</li> </ol>	<p>(2.5.2.) Verification consists of a check of design adequacy by such methods as design reviews, use of alternate calculations or methods, or performance of verification or qualification testing. The method, or combination of methods, used to verify a design will be selected on a case-by-case basis. Acceptable verification methods include one or more of the following items:</p> <ul style="list-style-type: none"> <li>– Alternate calculations using alternate methods that verify the correctness of original calculations or analyses.</li> <li>– Critical design reviews providing assurance that the final design is correct and satisfactory.</li> <li>– Where design adequacy is to be verified by qualification tests, the tests are identified.</li> </ul> <p><i>(Note: Testing is addressed in NQA-1-1994, Supplement 3S-1, and Sub-section 4.2.3, "Qualification Tests")</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>New drawings or revisions to existing drawings are prepared for inclusion into a design/configuration change by, or under the supervision of a designer from information received from the responsible engineer, manufacturer's drawings, etc.</p> <p>After implementation, approved design/configuration change information is transferred onto permanent drawings by a designer or drafter and peer reviewed and initialed as being checked by another designer or responsible design supervisor. New drawings or revisions to existing drawings receive final approval by the responsible design supervisor or authorized designee.</p>	<p>(2.2.) The Company has the responsibility to properly translate applicable safety analysis reports, regulatory requirements, ASME Code requirements, and design bases into specifications, drawings, procedures and instructions. The Company is responsible for electrical, mechanical, structural, instrumentation and control; nuclear engineering activities involved in nuclear station modifications, and also maintains a configuration management program.</p> <p>(2.2.) Design inputs, such as design bases, performance requirements, regulatory requirements, codes, and standards shall be identified and documented. Their selection shall be reviewed and approved by the responsible design organization. The design input shall be specified and approved in a timely manner and be to the level of detail necessary to provide a consistent basis for making design decisions, accomplishing design verification, and evaluating design changes. Changes from approved design inputs,</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>including the reason for the changes shall be identified, approved, documented, and controlled.</p> <p>(2.6) Changes to final designs, field changes, modifications to operating facilities, and nonconforming items dispositioned use-as-is or repair shall be justified and subject to design control measures commensurate with those applied to the original design. These measures shall include assurance that the design analyses for the structure, system, or components are still valid. A 10CFR50.59/72.48 review is performed for changes to the facility.</p> <p>(2.6.) Changes shall be approved by the same affected groups or organizations, which reviewed and approved the original design documents. In the case where the original organization is no longer responsible for design approval, then a new responsible design organization shall be designated. The designated organization shall have demonstrated competence in the specific design area of interest and have an adequate understanding of the requirements and intent of the original design.</p> <p>(2.6.) When a design change is approved, other than by revision to the affected design documents, measures shall be established to incorporate, where appropriate the change into these documents. Plant personnel will be made aware of design changes/modifications, which may affect the performance of their duties.</p> <p>(2.6.) Where a significant design change is necessary because of an incorrect design, the design process and verification procedure shall be reviewed and modified as necessary.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Specifications and changes thereto for items covered by the QA program are prepared by Engineering and are reviewed by Procurement Engineering for inclusion of QA requirements.</p>	<p>(Chapter 4, Paragraph 2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 4, Paragraph 2.2.3.) Measures are established, in controlled procedures, to ensure the appropriate technical and quality requirements are established, by qualified personnel, for the material, equipment, and services purchased from vendors, suppliers, or contractors. Any changes to these requirements require prior approval by the Company.</p> <p>(2.2.) Design inputs, such as design bases, performance requirements, regulatory requirements, codes, and standards shall be identified and documented. Their selection shall be reviewed and approved by the responsible design organization. Changes from approved design inputs, including the reason for the changes shall be identified, approved, documented, and controlled.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Procurement Engineering review assures that the documents are prepared, reviewed, and approved in accordance with company procedures and that the documents contain the necessary QA requirements such as inspection and test requirements, acceptance requirements, and the extent of documenting inspection and test results.</p>	<p>(2.1.) The Company has overall responsibility for design and design control activities including, preparing, reviewing, approving, and verifying design documents related to the plant's structures, systems, and components within the scope of the QAP. Additionally, the Company is responsible for reactor core design analysis, core design specifications and design reviews, for nuclear fuel and in-core components.</p> <p>(2.1.) Qualified personnel perform detailed design activities or review and control design work involving electrical, mechanical, structural, and instrumentation and control designs.</p> <p>Design activities are conducted to written procedures that include consideration of quality standards, quality assurance requirements, suitability of material parts, equipment, and processes, control of design interfaces, analytical or testing requirements, design basis, and configuration management. <i>(Also, see QATR Chapter 4, "Procurement Document Control.")</i></p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Station Operations Review Committee (SORC) reviews proposed changes affecting nuclear safety and makes recommendations concerning implementation of the change to the Plant Manager. The design change process provides for sign-off of the design change by the appropriate department head for the purpose of identifying required procedure change.</p> <p>If the proposed modification involves a Technical Specification change, or is considered by the SORC to involve any of the criteria of paragraph 10CFR50.59(c)(2), the matter is submitted to the Nuclear Review Board (NRB) for a determination of its safety implication before a license change request is submitted for NRC approval.</p>	<p>(Chapter 1, Paragraph 2.3.5.) The Plant Operations Review Committee (PORC) is a multi-disciplined committee responsible for review of activities that affect nuclear safety, reports to, and advises the management position responsible for plant operation on matters related to nuclear safety. The PORC shall ensure that plant activities are conducted safely and do not require NRC review and approval prior to implementation or changes to the Technical Specifications. The PORC functions in accordance with written instructions, which delineate committee composition, responsibility, authority, member qualifications, meeting frequency, subjects to be reviewed, reporting requirements, and administrative controls under which the group operates.</p> <p>(Chapter 1, Paragraph 2.3.5.) The Nuclear Safety Review Board (NSRB) is an offsite committee that reports to and advises the President and CNO of the results of their independent oversight of plant operations related to safe operation of the station and the Company's nuclear program relative to nuclear safety.</p> <p>(Chapter 1, Paragraph 2.3.5.) The NSRB is responsible for the independent safety review function and functions in accordance with written procedures and instructions which delineates committee composition, responsibility, authority, member qualifications, meeting frequency, subjects to be reviewed, reporting requirements, and administrative controls under which the board operates.</p> <p>(2.6.) Changes to final designs, field changes, modifications to operating facilities, and nonconforming items dispositioned use-as-is or repair shall be justified and subject to design control measures commensurate with those applied to the original design. These measures shall include assurance that the design analyses for the structure, system, or components are still valid. A 10CFR50.59/72.48</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>review is performed for changes to the facility.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>During the preparation of design changes, PSEG Nuclear assigns a project manager, as necessary. The project team consists of members of various organizations, both internal and external to Engineering.</p> <p>The project team members are responsible for providing technical and administrative input to the entire design change process, which consists of design, installation, testing, and closeout phases. The technical and administrative input is guided by the requirements of those organizations, which comprise the project team.</p> <p>The project manager ensures that the specific requirements of each organization on the project team are considered to ensure the overall quality of the product.</p>	<p>(2.6.) Changes to final designs, field changes, modifications to operating facilities, and nonconforming items dispositioned use-as-is or repair shall be justified and subject to design control measures commensurate with those applied to the original design. These measures shall include assurance that the design analyses for the structure, system, or components are still valid. A 10CFR50.59/72.48 review is performed for changes to the facility.</p> <p>(Chapter 1, Paragraph 2.2.3.2.) The management position responsible for engineering &amp; technical services provides oversight and support and is accountable for defining standard programs, processes, policies, procedures, delivering effective services and support, providing technical oversight of program implementation, and supporting the deployment and sharing of best practices throughout the nuclear organization in accordance with the QAP, regulatory requirements, and the ASME Code.</p> <p>(Continuation): Reporting to this position is a staff of management, administrative, and technical personnel. Functional areas of responsibility include:</p> <p style="padding-left: 40px;">10. Project management</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses these statements of the HCGS UFSAR.</p>
<p>NOS will verify inclusion of quality requirements in selected design changes through audits, and performance based assessments. Procedures have been established and contain provisions that describe how NOS selects design documents for review to assure that the documents are prepared, reviewed and approved in accordance with</p>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>company procedures and that the documents contain the necessary QA requirements.</p>	<p>that verify activities affecting safety-related functions.</p> <p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p>Discussion: Detailed company procedures for conducting audits and surveillances ensure a sample of "selected document" across all areas audited or assessed.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Updating of records, including drawings, blueprints, instructions and technical manuals, and specifications resulting from design changes, is the responsibility of the Engineering/Technical Support Vice President. Design change procedures provide for the timely update of affected drawings following design change implementation to reflect as-built configuration.</p>	<p>(Chapter 1, Paragraph 2.3.2.) The management position for engineering and design has the responsibility and authority for day-to-day engineering support activities, develops and maintains engineering programs, policies, procedures, and provides engineering services in accordance with the QAP. A staff of supervisory, technical, and administrative personnel supports maintenance activities.</p> <p>Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>- Design Engineering.</li> <li>- Document Control.</li> <li>- Engineering Administration.</li> <li>- Quality Assurance Records Management.</li> <li>- System Engineering.</li> </ul> <p>(2.6.) When a design change is approved, other than by revision to the affected design documents, measures shall be established to incorporate, where appropriate the change into these documents. Plant personnel will be made aware of design changes/modifications, which may affect the</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>performance of their duties. Where a significant design change is necessary because of an incorrect design, the design process and verification procedure shall be reviewed and modified as necessary.</p> <p>Discussion: To address “timely updates,” NQA-1-1994 in Appendix 2A-2 states in part that the company’s quality assurance program (in its implementing procedure) specifies an <u>orderly and timely</u> sequence for the implementation of applicable requirements and standards. This may change as plants move through design, construction, operation, and decommissioning.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. 56 Federal Register No. 36175 dated 7/31/1991.
2. ANSI N45.2.11, “Quality Assurance Requirements for the Design of Nuclear Power Plants.”
3. ANSI/ANS 3.1, “Selection, Qualification, and Training of Personnel for Nuclear Power Plants.”
4. CC-AA-101, “Engineering Requests.”
5. CC-AA-104, “Document Change Requests.”
6. CC-AA-20, “Configuration Management.”
7. CC-AA-304, “Component Classification.”
8. CC-AA-306, “ASME Code Classification.”
9. CC-AA-309, “Control of Design Analysis.”
10. CC-AA-309-101, “Engineering Technical Evaluations.”
11. CC-AA-311, “Drawing Creation and Revision.”
12. CC-AA-320-001, “Dynamic Qualification of Equipment.”
13. Exelon QATR, Revision 76, Chapters 1, 2, 3, 4, 6, & 18.
14. Hope Creek Generating Station UFSAR Sections: 1.8, & 17.2.
15. M30-QEI-03, “Design Control Monitoring Program.”
16. NC.CC-AP.ZZ-0001, “Design Bases/Input for Engineering Changes.”
17. NC.CC-AP.ZZ-0002, “Control of Non-Drawing Engineering Design Documents.”
18. NC.CC-AP.ZZ-0010, “Review Checking and Design Verification.”
19. NC.CC-AP.ZZ-0043, “Vendor Information Program.”
20. NC.CC-AP.ZZ-0060, “Critical Software Package Creation and Maintenance.”
21. NC.CC-AP.ZZ-0080, “Engineering Change Process.”
22. NO-AA-200-002, “Nuclear Oversight Audit Procedure”

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

23. NO-AA-200-002-1002, "Nuclear Oversight Audit Templates"
24. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure"
25. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook"
26. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates"
27. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance"
28. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
29. NQA-1-1994, Basic Requirement 3 "Design Control."
30. NQA-1-1994, Supplement 3S-1, "Supplementary Requirements for Design Control."
31. Regulatory Guide 1.64, "Quality Assurance Requirements for the Design of Nuclear Power Plants (Withdrawn)."
32. RM-AA-101, "Records Management Program."
33. RM-AA-102, "Control of Documents."
34. RM-AA-103, "Electronic Records Program."
35. RM-AA-104, "Records Recovery Control Plan."
36. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
37. Site Technical Specifications Section 6.0, "Administrative."
38. SM-SH-4001, "Supply Management Use of the Nuclear ASL."
39. SM-SH-404-1000, "Nuclear Procurement and Control of Materials and Services."

### Analysis

1. UFSAR Section 1.8.1.64, "Conformance to Regulatory Guide 1.64, Revision 2, June 1976: Quality Assurance Requirements for the Design of Nuclear Power Plants," Although NRC Regulatory Guide 1.64 was withdrawn by the NRC on July 31, 1991, HCGS commitments, as stated (below), are not affected by this withdrawal. HCGS complies with Regulatory Guide 1.64. See Section 17.2 for further discussion of quality assurance procedures and Section 1.8.2 for the NSSS assessment of this Regulatory Guide.

Discussion: UFSAR Section 1.8.2 is a general discussion of NSSS assessment of conformance and compliance assessment methods. There is a statement that provides for "withdrawn regulatory guides" and "those guides that are not applicable to HCGS." Also, there were no listed clarifications or exceptions in UFSAR 1.8.1.64.

Conclusion:

- All items in the HCGS UFSAR 17.2.3 are adequately addressed within the scope of the QATR.
- Administrative changes need to be made to the HCGS UFSAR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

<b>Actions / Comments</b>			
<p>1. Use NQA-1-1994 in lieu of N45.2.11. N45.2.11 was replaced by NQA-1, 1989, 3S-1, Appendix 3A-1 and is included in NQA -1-1994.</p> <p>2. Remove the RG 1.64 references and associated text from the HCGS UFSAR when the QATR is approved for use (Note: The NRC withdrew this RG in favor of ASME NQA-1 (1983). See 56FR 36175, 7/31/91).</p> <p>3. Delete section 17.2.3 from the HCGS UFSAR when the QATR is approved for use.</p> <p>4. No changes are required to the QATR.</p> <p>Re-Review Completed By: W. M. Eckman – 07/30/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/1/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 15 &amp; 13)</b>	17.2.4 – Procurement Document Control	<b>Chapter No. (Rev. 76)</b>	4 – Procurement Document Control
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Procurement documents and changes thereto for the purchase of Q, F, and R-designated material, equipment, or services are reviewed and approved by Procurement Engineering prior to issuance to the prospective supplier.</p> <p><i>(Note: “Q” designated equipment identifies those activities and services to which the operational QAP applies during operations. “F” designated equipment relates to fire protection and “R” designated equipment relates to the radioactive waste management system.)</i></p>		<p>(2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR. Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality. These requirements include reference to 10CFR21 when applicable.</p> <p>(2.2.3.) Any changes to these requirements require prior approval by the Company. Each vendor, supplier, or contractor has an acceptable quality assurance program, which is consistent with applicable regulatory requirements for the item or service.</p> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application “Augmented Quality.”</p> <p>Discussion: The Procurement Engineering function is generically named within the QATR as “management position responsible for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The Procurement Engineering review assures that spare and replacement parts and services are procured using controls, which are commensurate with current QA program requirements.</p>	<p>(2.2.3.) Measures are established, in controlled procedures, to ensure the appropriate technical and quality requirements are established, by qualified personnel, for the material, equipment, and services purchased from vendors, suppliers, or contractors.</p> <p>(2.2.6.) The procurement documents require the identification of appropriate spare and replacement parts or assemblies and the appropriate delineation of the technical and quality assurance related data required for ordering these parts or assemblies. These spare parts and replacement items are at least equivalent to the original design requirements or those specified by a properly reviewed and approved revision.</p> <p>Discussion: The Procurement Engineering function is generically named in the QATR as “management position responsible for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The review also assures that procurement documents adequately and correctly:</p> <ol style="list-style-type: none"> <li>1. Identify applicable QA program requirements</li> <li>2. Reference applicable regulatory requirements, codes, and standards</li> <li>3. Provide right of access for source surveillance and audit by Nuclear Oversight or its agents</li> <li>4. Provide for required supplier documentation to be submitted to PSEG Nuclear or maintained by the supplier, as appropriate</li> </ol>	<p>(2.2.2.) The Company establishes measures in controlled procedures to; specify technical requirements by reference to the appropriate specific drawings, specifications, codes, standards, regulations, procedures, or instructions, including revisions thereto that describe the items or services to be furnished. The procurement documents identify test, inspection and acceptance requirements as appropriate. These documents identify as appropriate special instructions and requirements for such activities as design, material and component identification, fabrication, special process controls, cleaning, erecting, packaging, handling, shipping, and extended storage.</p> <p>(2.2.3.) Measures are established in controlled procedures to ensure the appropriate technical and</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>5. Provide for PSEG Nuclear review and approval of critical procedures prior to fabrication, as appropriate.</p>	<p>quality requirements are established for the material, equipment, and services purchased from vendors, suppliers, or contractors prior to release for bid and contract award.</p> <p>(2.2.3.) These documented reviews, including changes to the specification or purchase order, ensure the technical and quality requirements are correctly stated, inspectable, and controllable and have adequate acceptance and rejection criteria and are prepared, reviewed, and approved in accordance with QAP requirements.</p> <p>(2.2.3.) Procurement documents require the vendors to incorporate quality assurance program requirements in sub-tier procurement documents and allow right of access to the vendors, sub-tier vendors, and contractors facilities and records for inspection or audit by the Company or designated representative.</p> <p>(2.2.5.) The procurement documents shall identify, at all tiers, the documentation required to be submitted for information, review, and approval including the time requirements for submittal. The Company procurement documents require the supplier to maintain specific quality assurance documents including retention times and disposition requirements.</p> <p>(2.3.) Review of the exceptions or changes requested by the supplier shall be analyzed to ensure they do not change or impact the technical or quality requirements and are incorporated in to the procurement documents, prior to the supplier proceeding, using the same review and approval process as appropriate except for commercial terms and editorial changes.</p> <p>Discussion: PSEG Nuclear is similarly defined in the QATR as "The Company." Procurement documents specify for company review of critical procedures prior to fabrication and is delineated in procedures.</p>
---------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procurement documents require suppliers and contractors of other than commercial grade items to provide services or components in accordance with a QA program that complies with applicable parts of 10CFR50, Appendix B.</p>	<p>(2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR. Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality.</p> <p>(2.1.2.) The Company establishes measures for evaluation and selection of procurement sources and must be completed prior to the award of contract. These measures include a supplier's technical and quality capability of meeting the applicable quality requirements of 10CFR50 Appendix B as determined by a direct evaluation of its facilities and personnel and the implementation of its quality assurance program.</p> <p>(2.2.1.) Procurement documents describe the scope of the items or services to be furnished by a supplier. For those items that are important to plant safety, applicable requirements should be specified in the procurement document.</p> <p>(2.2.3.) The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate safety classification except for procurement from other licensees that has a NRC approved quality program.</p> <p>Discussion: NQA-1-1994, Supplement 4S-1, in paragraph 2.3 states "Procurement documents shall require that the supplier have a documented QAP that implements portions or all of the requirements of this part (Part 1). The extent of the program required shall depend on the type and use of the item."</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>The requirement for notifying PSEG Nuclear of procurement requirements that have not been met is conveyed to the supplier through the standard warranty provision contained in each purchase order.</p>	<p>(2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR. Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality. These requirements include reference to 10CFR21 when applicable.</p> <p>(2.2.4.) The Company procurement documents specify the requirements for reporting and approving the disposition of supplier non-conformances. "Use as is" or "Repair" requires approval of the supplier disposition by the appropriate Company representative.</p> <p>Discussion: PSEG Nuclear is similarly defined in the QATR as "The Company."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>In addition, where 10CFR21 is imposed, suppliers are required to comply with applicable reporting requirements.</p>	<p>(2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR. Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality.</p> <p>These requirements include reference to 10CFR21 when applicable.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p><b>Documents</b></p>	
<ol style="list-style-type: none"> <li>1. CC-AA-101, "Engineering Requests."</li> <li>2. Exelon QATR, Revision 76, Chapters 1 and 4.</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

3. HCGS UFSAR Tables 17.2-1, 17.2.3, and 17.2-4 for Q, F, & R related activities and services.
4. Hope Creek UFSAR Sections 17.2.4.
5. M30-PCI-01, "Evaluation Supply SR, Q, F, R Procurement."
6. NC.NM-AP.ZZ-0007, "Records and Document Control."
7. NC.PM-AP.ZZ-0011, "Control of Records."
8. NC.PM-AP.ZZ-0019, "Procurement and Control of Materials and Services."
9. NC.PM-DG.ZZ-0021, "Procurement Document Processing."
10. NC.QN-AS.ZZ-0004, "Control of Files / Records."
11. ND.TQ-AP.ZZ-0002, "Procurement."
12. NO-AA-23, "Nuclear Oversight Vendor Audit (NOVA) Process Description."
13. NO-AA-500, "Approved Supplier Qualification Activities."
14. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
15. NQA-1-1994, Basic Requirement 4, "Procurement Document Control."
16. NQA-1-1994, Supplement 4S-1, "Supplementary Requirements for Procurement Document Control."
17. RM-AA-401, "Records Management."
18. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
19. Site Technical Specifications Section 6.0, "Administrative."
20. SM-AA-101, "Certification of Receipt Inspectors."
21. SM-AA-102, "Warehouse Operations."
22. SM-AA-300, "Procurement Engineering Support Activities."
23. SM-AA-4001, "Supply Management use of Nuclear EVL (PIMS) / ASL (Passport)."
24. SM-AA-4017, "Nuclear Contract Services Procedure."
25. SM-AA-404, "Nuclear Material Procurement."
26. SM-AA-405, "Contract Services."
27. SM-AC-402, "Services Procurement Procedure."
28. SM-SH-300-1001, "Procurement Activities and Responsibilities."
29. SM-SH-404-1000, "Nuclear Procurement and Control of Materials and Services."
30. TQ-AA-112, "Nuclear Oversight Training, Qualification, and Certification."

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.4 are adequately addressed within the scope of the QATR, NQA-1-1994, and implementing procedures.
- Administrative changes need to be made to the UFSAR proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Reduction in Commitment?</b>	<b>Yes</b>	<input type="checkbox"/>	<b>No</b>	<b>X</b>
---------------------------------	------------	--------------------------	-----------	----------

<b>Actions / Comments</b>			
<p>1. Remove the applicable wording from the HCGS UFSAR in Section 17.2.4 when the QATR is approved for use.</p> <p>2. No changes are required to the QATR for this Chapter.</p> <p>Actions Complete</p> <p>Re-Review Completed By: W. M. Eckman – 07/30/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/28/2006



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13 &amp; 15)</b>	17.2.5 – Instructions, Procedures, and Drawings	<b>Chapter No. (Rev. 76)</b>	.5 – Instructions, Procedures, and Drawings
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Organizations engaged in Q, F, and R-designated activities are required to perform these activities in accordance with written and approved procedures, instructions, or drawings, as appropriate.</p> <p><i>(Note: “Q” designated equipment identifies those activities and services to which the operational QAP applies during operations. “F” designated equipment relates to fire protection and “R” designated equipment relates to the radioactive waste management system.)</i></p>		<p>(1.0.) Activities governed by the Company's QAP shall be performed as directed by documented instructions, procedures, and drawings appropriate for the activity. The requirements for the use of these procedures shall also be prescribed in writing. These instructions, procedures, and drawings shall include responsibilities and acceptance criteria as applicable or appropriate for the activity.</p> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application “Augmented Quality.”</p> <p>Discussion: QATR Chapters 1 through 18 applies to safety related activities, services, structures, components, and systems as delineated in Regulatory Guide 1.33. Additionally, QAP is applied in a graded manner to certain areas and activities that are not clearly defined as safety related.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Simple routine activities that can be performed by qualified personnel with normal skills do not require a detailed written procedure. Complex activities require detailed</p>		<p>(1.0.) Those participating in any activity shall be aware of and use the proper and current revision of instructions, procedures, drawings, and engineering requirements for</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>procedures. The designation of those activities requiring detailed procedures is made by cognizant department heads and as a minimum, complies with applicable requirements of Regulatory Guide 1.33.</p>	<p>performing the activity.</p> <p>(2.2.) Procedures shall be prepared, reviewed, approved, and used as prescribed in writing, and shall contain step by step instructions in the degree of detail necessary for qualified individuals to perform the required function or task. Where appropriate, these procedures will include checklists containing the necessary attributes to be observed or measured.</p> <p>(2.3.1.1. 4<sup>th</sup> bullet) Department head approval authority shall be as specified in station procedures.</p> <p>Discussion: Both PSEG and Exelon commit to Regulatory Guide 1.33, "Quality Assurance Program Requirements," which lists those activities requiring detailed procedures. Simple routine activities are addressed in by paragraph 2.2 (1<sup>st</sup> sentence) by requiring "step-by-step" instructions in the degree of detail necessary for qualified individuals to perform the required function or task.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procedures include, as appropriate, scope, statement of applicability, references, prerequisites, precautions, limitations, and check off lists of inspection requirements, in addition to the detailed steps required to accomplish the activity. Instructions, procedures, and drawings also contain acceptance criteria where appropriate.</p>	<p>(2.2.) Procedures shall be prepared, reviewed, approved, and used as prescribed in writing, and shall contain step by step instructions in the degree of detail necessary for qualified individuals to perform the required function or task. Where appropriate, these procedures will include checklists containing the necessary attributes to be observed or measured. These documents shall include or reference appropriate quantitative or qualitative acceptance criteria for determining that prescribed activities have been satisfactorily accomplished.</p> <p>Conclusion: The QATR and associates procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The appropriate Vice President or Director is responsible</p>	<p>(Chapter 1, Paragraph 2.2.3.2.) The management</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>for assuring that procedures are prepared, reviewed, approved, and implemented in compliance with NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes".</p>	<p>position responsible for engineering &amp; technical services provides oversight and support and is accountable for defining standard programs, processes, policies, procedures, delivering effective services and support, providing technical oversight of program implementation, and supporting the deployment and sharing of best practices throughout the nuclear organization in accordance with the QAP, regulatory requirements, and the ASME Code.</p> <p>(Chapter 6, Paragraph 1.0.) Measures shall be established to control and coordinate the classification, review, approval, issuance, revision, and change of documents that prescribe methods or provide the technical and/or quality requirements for activities and items within the scope of this program. These measures shall ensure that such documents are reviewed for adequacy, approved for release and use, and distributed to the location where the activity is performed</p> <p>Discussion: The terms "Vice-President, The Company, or management position responsible for, " is used in lieu of the HCGS functions and responsibilities of a Vice-President or Director level manager. QATR Chapter 1 supports these functions at the corporate and site levels." The equivalent controls for NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes," are contained within the "AD" Procedures Platform for Exelon.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS assesses selected documents affecting nuclear safety to ensure incorporation of quality requirements through scheduled audits and performance based assessment activities conducted by NOS personnel.</p>	<p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Appendix B, "Assessment Frequency") Internal</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP. Sub-section "k" requires a sample of randomly selected procedures to ensure that the programmatic control processes used to assure that procedures are technically and administratively correct prior to use are resulting in timely and accurate procedure revisions.</p> <p>Conclusion: The QATR and procedure governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Engineering director is responsible for issuing specifications, drawings, blueprints, procedures, administrative and technical manuals associated with Q, F, and R-designated structures, systems, and components.</p> <p>Approved and implemented modifications and design changes are incorporated in these reference documents for the life of the station. Master lists of current editions or revisions of these documents are maintained by PSEG Nuclear to assure that only current and approved referenced documents are used.</p> <p><i>(Note: "Q" designated equipment identifies those activities and services to which the operational QAP applies during operations. "F" designated equipment relates to fire protection and "R" designated equipment relates to the radioactive waste management system.)</i></p>	<p>(Chapter 1, Paragraph 2.3.6.) The management position for engineering and design has the responsibility and authority for day-to-day engineering support activities, develops and maintains engineering programs, policies, procedures, and provides engineering services in accordance with the QAP.</p> <p>Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>– Document control.</li> <li>– Engineering administration.</li> <li>– Modifications and their implementation.</li> <li>– Quality assurance records management.</li> <li>– Technical support.</li> </ul> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application "Augmented Quality."</p> <p>Discussion: QATR Chapters 1 through 18 applies to safety related activities, services, structures, components,</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>and systems as delineated in Regulatory Guide 1.33. Additionally, QAP is applied in a graded manner to certain areas and activities that are not clearly defined as safety related.</p> <p>Discussion: The term “management position responsible for” identifies the functions and responsibilities of the Engineering Director. QATR Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS reviews selected procedures that implement the QA program, including testing, calibration, maintenance, modification, rework, and repair and changes thereto through periodic assessment activities. In addition, NOS is responsible for review of selected specifications, test procedures, and results of testing through periodic assessment activities.</p>	<p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Chapter 6, Paragraph 1.0.) Measures shall be established to control and coordinate the classification, review, approval, issuance, revision, and change of documents that prescribe methods or provide the technical and/or quality requirements for activities and items within the scope of this program. These measures shall ensure that such documents are reviewed for adequacy, approved for release and use, and distributed to the location where the activity is performed.</p> <p>(Appendix B, “Assessment Frequency”) Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company’s QAP.</p> <p>Discussion: Detailed company procedures for conducting audits and surveillances ensure a sample of “selected document” across all areas audited or assessed.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

UFSAR.

### Documents

1. AD-AA-1, "Document Usage and Administration."
2. AD-AA-10, "Administrative Program Description."
3. AD-AA-101, "Processing of Procedures and T&RM."
4. AD-AA-101-1002, "Writers Guide for Procedures."
5. AD-AA-104-101, "Procedure Use and Adherence."
6. ANSI N18.7, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
7. ANSI/ANS 3.1, "Selection, Qualification, and Training of Personnel for Nuclear Power Plants."
8. ANSI/ANS 3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
9. CC-AA-101, "Engineering Requests."
10. Exelon QATR, Revision 76, Chapters 1 and 4.
11. Exelon QATR, Revision 76, Chapters 1, 2, 5, 6, & 18.
12. Hope Creek UFSAR Sections 1.8.1.33, 13.5, and 17.2.
13. NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes."
14. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
15. NO-AA-200-002-1002, "Nuclear Oversight Audit Templates."
16. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
17. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
18. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
19. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
20. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
21. NQA-1-1994, Basic Requirement 5, "Instructions, Procedures, and Drawings." NQA-1-1994,
22. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)."
23. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)."
24. RM-AA-401, "Records Management."
25. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
26. Site Technical Specifications Section 6.0, "Administrative."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Analysis

1. UFSAR 1.8.1.33, Conformance to Regulatory Guide 1.33, Revision 2 (February 1978): "Quality Assurance Program Requirements (Operation)." HCGS complies with ANSI N18.7-1976/ANS-3.2, as endorsed and modified by Regulatory Guide 1.33. The contents of the plant operating procedures will comply with the applicable requirements of Section 5.3 of ANSI/ANS-3.2-1982. See Section 17.2 for further discussion of quality assurance during plant operation.

Exception is taken to the procedure review criteria of section 5.2.15 of ANSI N18.7-1976/ANS-3.2 (2-year procedure review). See Sections 13.5 and 17.2.

Discussion: There are programmatic controls in QATR Chapter 6 (2.1) that assure procedures are kept current. These controls take the place of scheduled periodic reviews required by earlier versions of ANSI N18.7/ANS-3.2. HCGS UFSAR Section 13.5 defines programmatic controls that assure procedures are kept current and supports the exception taken to ANSI N18.7/ANS-3.2. These controls are similar to those contained in QATR (Chapter 6) with the difference of the "On the Spot Change" and "Partial Procedure Process." These processes are covered by the temporary procedure controls in QATR Chapter 5, paragraph 2.3.1.5 and sub-tier administrative procedures (AD-AA-101) now approved for use at HCGS.

Conclusion:

- All items in the HCGS UFSAR 17.2.5 are adequately addressed within the scope of the QATR and by procedures governed by the QATR.
- Administrative changes need to be made to the UFSAR and the QATR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

### Actions / Comments

1. Retain the RG 1.33 and ANSI N18.7/ANS 3.2 (1976) entry in the HCGS USFAR and remove text associated with the exception described above.
  - Reg. Guide 1.33 and exceptions are now contained within the QATR, Appendix C

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

2. Remove HCGS UFSAR Section 13.5 (3<sup>rd</sup> par to end of 1<sup>st</sup> section) and replace with a generalized statement to reflect the procedure review controls as specified in the QATR (Chapter 5).
  - It was decided not to complete this action. No affect on QATR or UFSAR.
  
3. Modify the QATR Appendix C.1.1 "Codes and Standards" entry for ANSI N18.7/ANS 3.2 (1976) to add Hope Creek Generating Station to those sites already listed.
  - Complete See Appendix C
  
4. Delete HCGS UFSAR Section 17.2.5 when the QATR is approved for use.
  - Complete

Re-Review Completed By: W. M. Eckman – 07/30/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/26/2006
---------------------	------------------	--------------	-----------



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 15 &amp; 13)</b>	17.2.6 – Document Control	<b>Chapter No. (Rev. 76)</b>	6 – Document Control
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Instructions, procedures, drawings, and changes thereto are reviewed for the inclusion of appropriate QA program requirements approved by appropriate levels of management of the PSEG Nuclear organizations producing such documents, and distributed on a timely basis to using locations.</p>	<p>(1.0.) Measures shall be established to control and coordinate the classification, review, approval, issuance, revision, and change of documents that prescribe methods or provide the technical and/or quality requirements for activities and items within the scope of this program. These measures shall ensure that such documents are reviewed for adequacy, approved for release and use, and distributed to the location where the activity is performed</p> <p>Discussion: PSEG is synonymous with “The Company” in the QATR. The QATR does not specify what is or is not considered timely. However, NQA-1-1994 in Appendix 2A-2 states in part that “the company’s quality assurance program (in its implementing procedures) specifies an orderly and timely sequence for the implementation of applicable requirements and standards. This may change as plants move through design, construction, operation, and decommissioning.”</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>		
<p>Measures are provided for the timely removal of obsolete or superseded documents from the using location.</p>	<p>(2.4.) The Company document control process includes the following document control measures:</p> <ul style="list-style-type: none"> <li>– Recalling or identifying obsolete documents.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>		
<p>Supplier documents are controlled according to contractual agreements with suppliers.</p>	<p>(Chapter 7, Paragraph 2.3.4.) The Company establishes methods to control, handle and approve supplier documents. Suppliers submit their documents per</p>		

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>procurement requirements.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The following is a generic listing of key documents for the operational phase, showing minimum organization responsibility for review and/or approval, including changes thereto:</p> <ol style="list-style-type: none"> <li>1. Design specification – Engineering, Procurement Engineering.</li> <li>2. Design modification, manufacturing, construction, and installation drawings – Engineering, Maintenance, station operations.</li> <li>3. Procurement documents - initiating organization, Procurement, and Procurement Engineering.</li> <li>4. Nuclear Administrative Procedures Manual - organizations responsible for implementation, NOS.</li> <li>5. PSEG Nuclear second tier manuals, including station administrative procedures - cognizant department head, and selected manuals and procedures by NOS.</li> <li>6. Maintenance, modification, and calibration procedures for Q, F, and R designated station work activities - Maintenance</li> <li>7. Operating procedures - station operations</li> <li>8. UFSAR – Licensing and other PSEG Nuclear organizations responsible for implementing applicable sections. In addition, NOS reviews subsequent changes to UFSAR sections to the extent necessary for assuring compliance with applicable QA program requirements.</li> <li>9. Maintenance, inspection, and testing instruction – PSEG Nuclear implementing organizations</li> <li>10. Post modification test procedures – Engineering</li> </ol>	<p>(2.1) The Company document control process ensures that procedures are reviewed and approved before initial use. The Company has in place programmatic controls, which ensure that procedures are technically and administratively correct before use.</p> <p>(2.1.) These programmatic controls ensure that procedures are reviewed and revised, as needed, when pertinent source material is changed, when the plant design is changed, or when deficiencies are identified and corrected. Provisions shall be established to ensure that infrequently used procedures are reviewed prior to use, unless they have been reviewed within the previous two years. Except as noted in Appendix C, periodic biennial review requirements are satisfied by implementation of several processes and programs.</p> <p>(2.2.) The company has also established provisions to ensure that the following reviews are conducted:</p> <ul style="list-style-type: none"> <li>– Inspection, identification of inspection personnel, and documentation of inspection results.</li> <li>– Maintenance, modification, and inspection procedures are reviewed by qualified personnel, knowledgeable in quality assurance disciplines.</li> <li>– Necessary inspection requirements, methods, and acceptance criteria have been identified.</li> </ul> <p>Discussion: The minimum responsibility for review, approval, and changes to key documents are specified in Chapter 1 for management positions responsible for their functional areas and as defined and directed in sub-tier procedures. These functions are supported using several Exelon procedures relating to the function of an on-site review committee, an off-site review committee, a Station Qualified Review (SQR) Process, and administrative</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>11. Design Change Requests – Engineering, and selected DCRs/DCPs by NOS</p>	<p>procedures within the “AD platform.</p> <p>Conclusion: The QATR and those procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p>NOS involvement in the work activity includes review of selected work procedures to assess the designation of independent inspection hold points (see Section 17.2.10), observation of selected work activities, and review of selected completed safety-related Work Orders during performance based assessments, and quality verification inspection activities.</p> <p><i>(Note: UFSAR Section 17.2.10 is “Inspection.”)</i></p>	<p>(Chapter 10, Paragraph 2.2.) The Company prepares documented inspection plans. These inspection plans are applied when the activity is started. The inspection plans may be separate documents or an integral part of approved instructions, procedures or drawings. Related codes, standards, specifications and design documents are used to develop the inspection plans. The plans identify:</p> <ul style="list-style-type: none"> <li>– Acceptance criteria.</li> <li>– Activities to be inspected.</li> <li>– Inspection characteristics.</li> <li>– Inspection techniques/equipment (including accuracy requirements).</li> <li>– Provisions for inspection and test status.</li> <li>– Provisions for the recording of inspection results.</li> <li>– Qualification requirements.</li> <li>– Responsible organizations.</li> </ul> <p>(Chapter 10, Paragraph 2.4.) When inspections must be performed before work can continue, hold points are established in appropriate documents. Consent to waive hold points are recorded prior to continuation of work. When inspection is desired, but not mandatory before work can continue, witness points are established. Completion of hold and witness points is documented.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The Site Records Manager is responsible for the establishment and maintenance of a document control system for all instructions, procedures, specifications, and drawings prepared by or received by PSEG Nuclear for use in operating, maintaining, refueling, or modifying items and services covered by the QA program.</p>	<p>(Chapter 1, Paragraph 2.3.2.) The management position for engineering and design has the responsibility and authority for day-to-day engineering support activities, develops and maintains engineering programs, policies, procedures, and provides engineering services in accordance with the QAP.</p> <p>A staff of supervisory, technical, and administrative personnel supports maintenance activities. Functional areas of responsibility include:</p> <ul style="list-style-type: none"> <li>– Quality assurance records management.</li> </ul> <p>(2.3.) Written document control procedures shall be established to provide for the control of approved documents. Documents that are controlled include, but are not limited to, the following items:</p> <ul style="list-style-type: none"> <li>– As-built drawings.</li> <li>– Design specifications.</li> <li>– Work instructions and procedures.</li> </ul> <p>Discussion: The position of “Site Records Manager” is referenced as a “management position responsible for” has functional responsibility for document control. QATR Chapter 1 supports this function at the corporate and site levels.” The PSEG Nuclear equivalent name in the QATR is “The Company.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Nuclear Administrative Procedures Manual describes the controls for specific documents. Control of station practices is included in the administrative procedures and in department directives authorized by the responsible department managers.</p>	<p>(2.1.) The Company document control process ensures that procedures are reviewed and approved before initial use. The Company has in place programmatic controls, which ensure that procedures are technically and administratively correct before use. These programmatic controls ensure that procedures are reviewed and revised, as needed, when pertinent source material is changed, when the plant design is changed, or when</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>deficiencies are identified and corrected.</p> <p>Discussion: The Nuclear Administrative Procedures Manual describes the controls for documents (NC.DM-AP.ZZ-0001 (Q), "Procedure Administrative Processes") Equivalent controls exist with the Exelon "AD" Platform procedures (Administrative).</p> <p>Conclusion: The QATR and procedures that are governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Measures are established to assure that the administrative procedures and department directives are up to date, properly authorized, changed only after the required review and approvals are obtained, and distributed to appropriate personnel.</p>	<p>(1.0.) Measures shall be established to control and coordinate the classification, review, approval, issuance, revision, and change of documents that prescribe methods or provide the technical and/or quality requirements for activities and items within the scope of this program.</p> <p>(1.0.) These measures shall ensure that such documents are reviewed for adequacy, approved for release and use, and distributed to the location where the activity is performed</p> <p>(2.4) The Company document control process includes the following document control measures:</p> <ul style="list-style-type: none"> <li>– Identifying qualified individuals or organizations responsible for preparing, reviewing, approving, and issuing documents, including revisions.</li> </ul> <p>(2.5.) The Company document control process ensures changes to documents are reviewed and approved by the same organizations that performed the original review and approval, unless delegated to another responsible organization. The reviewing organization has access to pertinent background data or information upon which to base their approval. To avoid a possible omission of a required review, the Company document control process includes provisions to control minor changes.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Design change procedures provide for the timely update of affected drawings, following design change implementation, to reflect as-built configuration.</p>	<p>(2.3.) Written document control procedures shall be established to provide for the control of approved documents. Documents that are controlled include, but are not limited to, the following items:</p> <ul style="list-style-type: none"> <li>– As-built drawings.</li> <li>– Design specifications.</li> <li>– Work instructions and procedures.</li> </ul> <p>Discussion: NQA-1-1994 in Appendix 2A-2 states in part that the company's quality assurance program (in its implementing procedure) specifies an orderly and timely sequence for the implementation of applicable requirements and standards. This may change as plants move through design, construction, operation, and decommissioning.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Computerized databases maintained by PSEG Nuclear are used to control drawings and specifications.</p>	<p>(2.3.) Written document control procedures shall be established to provide for the control of approved documents. Documents that are controlled include, but are not limited to, the following items:</p> <ul style="list-style-type: none"> <li>– As-built drawings.</li> <li>– Computer codes and software.</li> <li>– Design specifications.</li> <li>– Engineering calculations.</li> <li>– Purchase orders and related documents.</li> <li>– Safety analysis reports.</li> <li>– Technical specifications (station and Independent Spent Fuel Storage Installation)</li> <li>– Work instructions and procedures.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 17, Paragraph 2.2.) Records may be stored in electronic media provided that the process for managing and storing data is documented in procedures that comply with applicable regulations.</p> <p>Discussion: PSEG is synonymous with “The Company” in the QATR. Computerized databases are maintained in accordance QATR Chapter 3 (2.4.) and both PSEG and Exelon have implementing procedures that address software quality assurance.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Revision control of procedures and instructions is accomplished through the control of computerized databases.</p>	<p>(2.1.) The Company document control process ensures that procedures are reviewed and approved before initial use. The Company has in place programmatic controls, which ensure that procedures are technically and administratively correct before use. These programmatic controls ensure that procedures are reviewed and revised, as needed, when pertinent source material is changed, when the plant design is changed, or when deficiencies are identified and corrected.</p> <p>(2.4.) The Company document control processes includes the following document control measures:</p> <ul style="list-style-type: none"> <li>– Distributing documents approved for issuance in accordance with updated and current distribution lists.</li> <li>– Establishing document control procedures to assure that proper documents are accessible and being used.</li> <li>– Recalling or identifying obsolete documents.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Controls of software affecting nuclear safety are identified in the Nuclear Administrative Procedures Manual. These controls are based on applicable guidelines provided by the NRC and include software review and approval as well as access controls to prevent unauthorized software changes.</p>	<p>(2.3.) Written document control procedures shall be established to provide for the control of approved documents.</p> <p>Documents that are controlled include, but are not limited to, the following items (excerpt):</p> <ul style="list-style-type: none"> <li>– Computer codes and software.</li> <li>– Work instructions and procedures.</li> </ul> <p>(NQA-1, Subpart 2.7, “Quality Assurance Requirements of Computer Software for Nuclear Facility Applications.”) This subpart provides requirements for the development, procurement, maintenance, and use of computer software, as applies to the design, construction, operation, modification, repair, and maintenance of nuclear facilities. It supplements the requirements of NQA-1 (Part 1) and shall be used in conjunction with the applicable basic and supplementary requirements when and to the extent specified by the organization invoking this subpart.</p> <p>Discussion: The Nuclear Administrative Procedures Manual describes the controls for documents (NC.DM-AP.ZZ-0001 (Q), “Procedure Administrative Processes”) Equivalent controls exist with the Exelon “AD” Platform procedures (Administrative). <i>(Note: See NQA-1, Supplement 11S-2, “Supplementary Requirements for Computer Program Testing.”)</i></p> <p>Conclusion: The QATR, NQA-1-1994, and procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p><b>Documents</b></p>	
<ol style="list-style-type: none"> <li>1. AD-AA-1, “Document Usage and Administration.”</li> <li>2. AD-AA-10, “Administrative Program Description.”</li> <li>3. AD-AA-101, “Processing of Procedures and T&amp;RM.”</li> </ol>	



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

4. AD-AA-101-1002, "Writers Guide for Procedures."
5. AD-AA-104-101, "Procedure Use and Adherence."
6. Exelon QATR, Revision 76, Chapters 1, 6, 7, 17, 18, and Appendix B.
7. Hope Creek UFSAR Section 17.2.6.
8. NC.CC-AP.ZZ-0002, "Control of Non-Drawing Engineering Design Documents."
9. NC.NA-AP.ZZ-0064, "Software Quality Assurance."
10. NC.NM-AP.ZZ-0007, "Records and Document Control."
11. NC.VP-PO.ZZ-0007, "Document Control and Records Management Program."
12. ND.DE-AP.ZZ-0033, "Configuration Control – Engineering Document Control Procedure."
13. NF-AA-90, "Computer Software Procurement, Development, and Implementation in NFM."
14. NO-AA-1022, "Nuclear Oversight Records Management."
15. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
16. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."
17. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
18. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
19. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
20. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
21. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
22. NQA-1-1994, Basic Requirement 6, "Document Control."
23. NQA-1-1994, Subpart 2.7, "Quality Assurance Requirements of Computer Software for Nuclear Facility Applications."
24. NQA-1-1994, Supplement 11S-2, "Supplementary Requirements for Computer Program Testing."
25. NQA-1-1994, Supplement 6S-1, "Supplementary Requirements for Document Control."
26. RM-AA-101, "Records Management Program."
27. RM-AA-102, "Control of Documents."
28. RM-AA-103, "Electronic Records Program."
29. RM-AA-104, "Records Recovery Control Plan."
30. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
31. Site Technical Specifications Section 6.0, "Administrative."
32. TQ-TP.ZZ-0104, "Nuclear Training Department Document Control."

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Analysis</b>				
<p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>– All items in the HCGS UFSAR 17.2.6 are adequately addressed within the scope of the QATR, procedures governed by the QATR, and NQA-1-1994.</li> <li>– Administrative changes need to be made to the UFSAR and the QATR for proper transition (see below).</li> <li>– The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
<p>1. Remove HCGS UFSAR Section 17.2.6 when the QATR is approved for use.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> <p>Re-Review Completed By: W. M. Eckman – 07/31/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/26/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13, 15, &amp; 13)</b>	17.2.7 – Control of Purchased Material, Equipment and Services.	<b>Chapter No. (Rev. 76)</b>	7 - Control of Purchased Material, Equipment and Services.
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Nuclear Oversight maintains an up-to-date listing of approved suppliers of material, equipment, and services covered by the QA program.</p> <p>This list identifies suppliers and contractors who have demonstrated the ability to supply acceptable material, equipment, or services. The list includes manufacturers of commercial grade items.</p> <p>All QA program procurements are made from approved suppliers.</p>		<p>(2.1.2.) The Company establishes measures for evaluation and selection of procurement sources and must be completed prior to the award of contract. These measures include one or more of the following:</p> <ul style="list-style-type: none"> <li>– Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use.</li> <li>– Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.</li> <li>– Supplier's technical and quality capability of meeting the applicable quality requirements of 10CFR50 Appendix B as determined by a direct evaluation of its facilities and personnel and the implementation of its quality assurance program.</li> <li>– Review and evaluation of audits, surveys, and inspections conducted by other utilities, or American Society of Mechanical Engineers (ASME).</li> </ul> <p>(Chapter 4, Paragraph 2.2.3.) The Nuclear Oversight Vendor Audit Group (NOVA) maintains a controlled list of evaluated suppliers that are audited on a triennial basis. The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate safety classification except for procurement from other licensees that has a NRC approved quality program.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 4, Paragraph 2.2.3.) Measures are established, in controlled procedures, to ensure the appropriate technical and quality requirements are established, by qualified personnel, for the material, equipment, and services purchased from vendors, suppliers, or contractors.</p> <p>(Chapter 4, Paragraph 2.2.3.) The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate safety classification except for procurement from other licensees that has a NRC approved quality program.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The responsible engineer and Nuclear Oversight Vendor Assessors select and evaluate prospective bidders and suppliers. The responsible engineer determines the technical competence of the supplier, while Nuclear Oversight Vendor Assessors evaluate the prospective supplier's QA program for the capability of meeting applicable requirements of 10CFR50, Appendix B, and for extending applicable program requirements to sub-tier suppliers.</p>	<p>(2.1.2.) The Company establishes measures for evaluation and selection of procurement sources and must be completed prior to the award of contract. These measures include one or more of the following:</p> <ul style="list-style-type: none"> <li>– Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use.</li> <li>– Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.</li> <li>– Supplier's technical and quality capability of meeting the applicable quality requirements of 10CFR50 Appendix B as determined by a direct evaluation of its facilities and personnel and the implementation of its quality assurance program.</li> <li>– Review and evaluation of audits, surveys, and inspections conducted by other utilities, or American Society of Mechanical Engineers (ASME).</li> </ul> <p>Discussion: The responsible engineer function is defined in the QATR under the "management position responsible</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>The QATR names the Nuclear Oversight Vendor Audit Group (NOVA) that has qualified auditors as staff. Both the engineering function and that of NOVA is driven by company procedures.</p> <p>Conclusion: The QATR and procedures that are governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Qualified Nuclear Oversight Vendor Assessors evaluate the prospective supplier's QA capability using one or more techniques, including but not necessarily limited to:</p> <ol style="list-style-type: none"> <li>1. Evaluation of supplier's or contractor's procedures or manuals and significant (i.e., non-editorial) changes thereto</li> <li>2. ASME code stamp approval</li> <li>3. Nuclear Utility Procurement Issues Council (NUPIC) or Nuclear Fuel Users Forum (NFUF) Audits.</li> <li>4. Satisfactory past history of providing similar items</li> <li>5. Survey of supplier's facility</li> </ol>	<p>(2.1.2.) The Company establishes measures for evaluation and selection of procurement sources and must be completed prior to the award of contract. These measures include one or more of the following:</p> <ul style="list-style-type: none"> <li>– Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use.</li> <li>– Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.</li> <li>– Supplier's technical and quality capability of meeting the applicable quality requirements of 10CFR50 Appendix B as determined by a direct evaluation of its facilities and personnel and the implementation of its quality assurance program.</li> <li>– Review and evaluation of audits, surveys, and inspections conducted by other utilities, or American Society of Mechanical Engineers (ASME).</li> </ul> <p>(Chapter 4, Paragraph 2.2.3.) The Nuclear Oversight Vendor Audit Group (NOVA) maintains a controlled list of evaluated suppliers that are audited on a triennial basis. The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate safety classification except for procurement from other licensees that has a NRC approved quality</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>program.</p> <p>Discussion: The QATR names the Nuclear Oversight Vendor Audit Group (NOVA) in Chapter 4, and functionally in Chapter 1. Specific instructions to evaluate a prospective buyers QA program is contains in company procedures.</p> <p>Conclusion: The QATR and procedures that are governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The evaluations of the prospective suppliers are conducted using standard checklist form designed to include the 18 quality criteria of 10CFR50, Appendix B, as appropriate.</p> <p>Surveys of suppliers' capabilities include evaluation of management systems, manufacturing processes and adherence to QA procedures. The results of supplier evaluations are documented by the appropriate checklist form and filed.</p>	<p>(2.1.2.) The Company establishes measures for evaluation and selection of procurement sources and must be completed prior to the award of contract. These measures include one or more of the following:</p> <ul style="list-style-type: none"> <li>– Evaluation of the supplier's history of providing an identical or similar product that performs satisfactorily in actual use.</li> <li>– Supplier's current quality records supported by documented qualitative and quantitative information that can be objectively evaluated.</li> <li>– Supplier's technical and quality capability of meeting the applicable quality requirements of 10CFR50 Appendix B as determined by a direct evaluation of its facilities and personnel and the implementation of its quality assurance program.</li> <li>– Review and evaluation of audits, surveys, and inspections conducted by other utilities, or American Society of Mechanical Engineers (ASME).</li> </ul> <p>(2.3.1.) The Company establishes measures to interface with and to verify supplier performance. These measures include the following items:</p> <ul style="list-style-type: none"> <li>– Establishing an understanding between the Company and the supplier of the provisions and specifications contained in the procurement</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>documents.</p> <ul style="list-style-type: none"> <li>– Establishing a method of document information exchange between the Company and the supplier.</li> <li>– Establishing the extent of source surveillance and inspection activities.</li> <li>– Identifying and processing necessary change information.</li> <li>– Requiring the supplier to identify planning techniques, tests, inspections, and processes to be used in fulfilling procurement document requirements.</li> <li>– Reviewing supplier documents that are generated or processed during activities fulfilling procurement requirements.</li> </ul> <p>Discussion: Instructions to evaluate a prospective buyers QA program is specified in company procedures.</p> <p>Conclusion: The QATR and procedures that are governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Supplier control is maintained through a planned inspection, monitoring, and audit program through a combination of Nuclear Oversight and Procurement Engineering.</p>	<p>(2.3.1.) The Company establishes measures to interface with and to verify supplier performance. These measures include the following items:</p> <ul style="list-style-type: none"> <li>– Establishing an understanding between the Company and the supplier of the provisions and specifications contained in the procurement documents.</li> <li>– Establishing a method of document information exchange between the Company and the supplier.</li> <li>– Establishing the extent of source surveillance and inspection activities.</li> <li>– Identifying and processing necessary change</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>information.</p> <ul style="list-style-type: none"><li>– Requiring the supplier to identify planning techniques, tests, inspections, and processes to be used in fulfilling procurement document requirements.</li><li>– Reviewing supplier documents that are generated or processed during activities fulfilling procurement requirements.</li></ul> <p>(2.3.2.) Qualified individuals or its agents accomplish source inspections at the supplier's facility to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents.</p> <p>(2.3.3.) The Company or its agents verify the effectiveness of the supplier's quality program by survey, audit or surveillance. Verification is performed at intervals consistent with the importance to safety, complexity and quality of the product or services furnished. Activities are witnessed or observed and the results documented when source verification is performed.</p> <p>(2.3.3.) The Company conducts audits per the requirements established in Chapter 18 or reviews audits performed by other license holders as defined in procedures.</p> <p>(2.3.4.) The Company establishes methods to control, handle and approve supplier documents.</p> <p>(2.3.4.) The Company records activities to verify supplier conformance with the requirements of procurement documents.</p> <p>Discussion: The procurement engineering function is defined in the QATR under the "management position responsible for engineering and technical services." Chapter 1 supports this function at the corporate and site</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>levels.” The QATR names the Nuclear Oversight Vendor Audit Group (NOVA) that has qualified auditors as staff. Both the procurement engineering function and that of NOVA is driven by company procedures.</p> <p>Conclusion: The QATR and procedures that are governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Procurement Engineer conducts a review of the manufacturing process for complex manufactured items, such as pumps, valves, heat exchangers, vessels, electrical panels, etc. This review establishes critical inspection points and establishes a notification point program for the identified inspection or surveillance activities.</p>	<p>(2.3.2.) The Company and the supplier establish as appropriate, notification points, including hold and witness points and incorporate into the appropriate documents based upon the complexity and scope of the item or service. When required by the procurement document or specification, surveillances and evaluations at the supplier's facility are conducted to verify continued compliance with the quality assurance requirements of the procurement documents.</p> <p>Discussion: The procurement engineering function is defined in the QATR under the “management position responsible for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Qualified individuals or the Nuclear Oversight Agents (NUPIC) perform the established inspection or surveillance activities.</p>	<p>(2.3.2.) Qualified individuals or its agents accomplish source inspections at the supplier's facility to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Commercial Grade Items are dedicated in accordance with recognized industry standards, e.g. EPRI NP 5652.</p> <p><i>(Note: EPRI NP 5652 in an example.)</i></p>	<p>(2.4.7.) Where the safety related design utilizes commercial grade items, the following requirements are a permissible alternative for acceptance, to other requirements of this Chapter:</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>3. One or a combination of the following methods shall be utilized to provide reasonable assurance that the item meets the acceptance criteria for the characteristics identified to be verified for acceptance:</p> <ul style="list-style-type: none"> <li>– Acceptable supplier/item performance records.</li> <li>– Commercial grade survey of the supplier.</li> <li>– Source verification.</li> <li>– Special test(s) or inspection(s) or both.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Qualified individuals or the Nuclear Oversight Agents (NUPIC) perform monitoring of suppliers/contractors during fabrication, installation, modification, rework, repair, inspection, testing, and shipment of Q, F, and R-designated materials, equipment, and services at the supplier's/contractor's facility or at the generating station.</p> <p><i>(Note: "Q" designated equipment identifies those activities and services to which the operational QAP applies during operations. "F" designated equipment relates to fire protection and "R" designated equipment relates to the radioactive waste management system.)</i></p>	<p>(2.3.2.) Qualified individuals or its agents accomplish source inspections at the supplier's facility to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents.</p> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application "Augmented Quality."</p> <p>Discussion: NQA-1-1994 Basic Requirement 7 states in part that "Such control shall provide for the following as appropriate: ...and examination of items or services upon delivery and completion. Qualified individuals for the activity being performed is required through QATR Chapter 1, paragraph 2.5.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>Surveillances are conducted in accordance with written procedures and are designed to assure conformance with procurement requirements, in accordance with the safety significance of the item or service.</p> <p>Periodic evaluations of the supplier/contractor quality program are conducted, consistent with the importance or complexity of the item or service. Dependent upon the evaluation, additional audits or corrections by the supplier/contractor may be required.</p>	<p>(2.1.1.) The Company establishes measures to assure that purchased material, equipment, and services conform to the procurement documents for safety related and ASME code specifications as appropriate. This assurance is accomplished by controlling both the selection of procurement sources and acceptance of the product at the source and/or upon receipt at the appropriate location.</p> <p>(2.3.3.) The Company or its agents verify the effectiveness of the supplier's quality program by survey, audit or surveillance. Verification is performed at intervals consistent with the importance to safety, complexity and quality of the product or services furnished. Activities are witnessed or observed and the results documented when source verification is performed.</p> <p>(2.3.3.) The Company conducts audits per the requirements established in Chapter 18 or reviews audits performed by other license holders as defined in procedures. The results of these audits are used to support the maintenance of the list of evaluated suppliers.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Supplier's certificates of conformance are periodically evaluated by audit, inspection, or test to assure that they are valid. Results of these audits, inspections, or tests are documented.</p>	<p>(2.4.4.) The supplier's certificate of conformance attests the product or service provided is in accordance with the procurement documents is reviewed during source and/or receipt inspections to verify compliance. This document provides the purchase order number; codes, standards or other specifications required to be met in the purchase order. Requirements which cannot be met must be included with an explanation why and a means to resolve the non-conformances. A person who is responsible for quality assurance function attests to this certificate</p> <p>(2.4.4.) The validity of a supplier's certificate of conformance is ascertained through any of the following</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>methods source inspection, independent inspection agency, receipt inspections, surveillance, testing of hardware, quality assurance audits or surveillances at intervals commensurate with the suppliers past performance.</p> <p>(2.4.4.) The results of the source and/or receipt inspections, the acceptability of supplier furnished documentation, and the resulting determination of conformance or nonconformance is documented.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Where feasible, replacement parts adhere to the original design criteria (such as Nuclear Steam Supply System (NSSS) components in accordance with NSSS documentation and other code components in accordance with AWWA, AISC, SPCC, and ASME B&amp;PV Code, Section III, 1971 and Summer 1972 Addenda or later). This provides the intended level of safety, and does not result in redesign of the system.</p> <p><i>(Note: Wording within the parentheses above are examples.)</i></p>	<p>(2.6.) Procedures control the procurement, storage and issuance of materials and components including spare and replacement parts. Procurement documents for these items identify the appropriate technical and quality related requirements. The Company purchases spare parts and replacement items, equipment and components to at least the original design requirements or those specified by a properly reviewed and approved revision.</p> <p>(2.6.) Where the QA requirements of the original item cannot be determined, qualified individuals conduct an engineering evaluation to establish appropriate requirements and controls. This evaluation insures that interfaces, interchangeability, safety, fit and function are not adversely affected or are contrary to applicable regulatory or ASME Code requirements. The evaluators document their results.</p> <p>(2.6.) Where the company procured the original item with no specifically identified quality assurance program requirements, or from an Original Equipment Manufacturer/Supplier (OEM/OES) who no longer is on a list of evaluated suppliers identical (like-for-like) items may be similarly procured from the OEM/OES through the use of procurement plans.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.6.) In such cases, the Company conducts a joint technical engineering and quality assurance documented evaluation to established requirements and controls to assure at least equivalent product performance. The evaluation shall assure that interfaces, interchangeability, safety, fit and function are not adversely affected or are not contrary to applicable regulatory or ASME Code requirements.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The requirement for appropriate supplier documentation of conformance to applicable code, standard, specification, or other quality requirements is provided by the procurement document.</p>	<p>(2.5.) Documented evidence that material or equipment conforms to procurement requirements is present at the site before use or installation. This documentary evidence is traceable to the item and shall be retained at the nuclear power plant site and shall be sufficient to identify the specific requirements such as codes, standards, or specifications met by the purchased material and equipment.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The supplier-provided documentation is reviewed either at the supplier's facility during source surveillance or by MC during material evaluation activities. A data review check off is used to document the acceptability of the supplier-provided data and to identify discrepancies.</p> <p><i>(Note: MC stands for Material Control.)</i></p>	<p>(2.3.2.) When required by the procurement document or specification, surveillances and evaluations at the supplier's facility are conducted to verify continued compliance with the quality assurance requirements of the procurement documents.</p> <p>(2.3.2.) Qualified individuals or its agents accomplish source inspections at the supplier's facility to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents.</p> <p>(2.3.2.) Such inspections, examinations or tests are accomplished in accordance with written procedures, plans, and/or checklists containing or referencing appropriate acceptance criteria.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Discussion: The material control function is defined in the QATR under the “management position responsible for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Evaluation of supplier equipment, material, and services is conducted by qualified personnel to verify correct identification, appropriate documentation, and to verify that the item is acceptable and can be released for storage, installation, or use.</p>	<p>(2.4.1.) Upon receipt the applicable materials, parts, and components are controlled. Qualified inspection personnel are responsible for inspecting, releasing, and maintaining the inspection status of purchased material and equipment. After receipt inspection, the purchased material is placed in a controlled storage area or issued for installation or further work.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Nonconforming items identified by MC are tagged or segregated to prevent inadvertent use. Nonconforming items are controlled as described in Section 17.2.15.</p> <p><i>(Note: MC stands for Material Control. UFSAR Section 17.2.15 addresses Non-conformances.)</i></p>	<p>(Chapter 15, Paragraph 1.0.) Controls shall provide for identification, evaluation, segregation when practical, disposition of nonconforming items, and for notification to affected organizations. Items that do not conform to specified requirements shall be controlled to prevent inadvertent installation or use.</p> <p>Discussion: The material control function is defined in the QATR under the “management position responsible for engineering and technical services.” Chapter 1 supports this function at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<b>Documents</b>	
<ol style="list-style-type: none"> <li>1. CC-AA-11, “Nonconformances.”</li> <li>2. Exelon QATR, Revision 76, Chapters: 4, 7, 15</li> <li>3. Hope Creek UFSAR Sections 17.2.7.</li> <li>4. MA-AA-1000, “Conduct of Maintenance Manual.”</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

5. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
6. NC.PM-DG.ZZ-0010, "SAP Warehouse Management Storage Location Data."
7. ND.PM-AP.ZZ-0300,"Storage and Handling of Material."
8. NO-AA-1013, "Nuclear Oversight Trending and Analysis."
9. NO-AA-1022, "Nuclear Oversight Records Management."
10. NO-AA-1024, "Nuclear Oversight Documenting Objective Evidence."
11. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
12. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."
13. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
14. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
15. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
16. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
17. NO-AA-21, "Nuclear Oversight Audit Process Description."
18. NO-AA-23, "Nuclear Oversight Vendor Audit (NOVA) Process Description."
19. NO-AA-500, "Approved Supplier Qualification Activities."
20. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
21. NQA-1-1994, Basic Requirement 7, "Control of Purchased Items and Services."
22. NQA-1-1994, Supplement 7S-1, "Supplementary Requirements for Control of Purchased Items and Services."
23. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
24. Site Technical Specifications Section 6.0, "Administrative."
25. SM-AA-101, "Certification of Receipt Inspectors."
26. SM-AA-102, Warehouse Operations."
27. SM-AA-102-1001, "Warehouse Guidelines."
28. SM-AA-300, " Procurement Engineering Support Activities."
29. SM-AA-400, "Supply Procurement."
30. SM-AA-401, "Material Procurement."
31. SM-SH-102-1001, "Warehouse Operations."
32. SM-SH-102-1002, "Warehousing Guidelines."
33. SM-SH-404-1000, "Nuclear Procurement and Control of Materials and Services."
34. TQ-AA-112, "Nuclear Oversight Training, Qualification, and Certification."

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.7 are adequately addressed within the scope of the QATR, implementing procedures, and NQA-1-1994.

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<ul style="list-style-type: none"> <li>- Administrative changes need to be made to the UFSAR for proper transition (see below).</li> <li>- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
<p>1. Remove UFSAR Section 17.2.7 when the QATR is approved for use.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> <p>Re-Review Completed By: W. M. Eckman – 07/31/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/25/2006



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p align="center"><b>Section No. (Rev. 13 &amp; 15)</b></p>	<p align="center"><b>17.2.8 - Identification and Control of Materials, Parts, and Components</b></p>	<p align="center"><b>Chapter No. (Rev. 76)</b></p>	<p align="center"><b>8 - Identification and Control of Materials, Parts, and Components</b></p>
<p align="center"><b>Hope Creek UFSAR Text</b></p>		<p align="center"><b>QATR Supporting References</b></p>	
<p>Procurement document controls provide assurance that materials, parts, and components received can be properly identified.</p>	<p>(2.1.) The Company establishes measures for the identification and control of materials, parts and components, including partially fabricated assemblies, and assures that only correct and accepted items are used or installed. Identification is maintained on the items or in documents traceable to the items. Physical identification shall be used to the maximum extent possible.</p> <p>(Chapter 4, Paragraph 1.0.) Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality.</p> <p>(Chapter 4, Paragraph 2.2.2.) The procurement documents identify test, inspection and acceptance requirements as appropriate. These documents identify as appropriate special instructions and requirements for such activities as design, material and component identification, fabrication, special process controls, cleaning, erecting, packaging, handling, shipping, and extended storage.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>		
<p>The identification is directly marked on the item, or on records traceable to the item.</p>	<p>(2.3.) Identification is on the item where practicable. Identification is clear, unambiguous and indelible. Identification does not affect the fit, function, quality, and service life of the item. If the item cannot be practicably marked, the Company uses records traceable to the item</p>		

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>for identification.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The data review conducted at receiving assures that proper documentation of received items is available.</p>	<p>(2.5.) Documented evidence that material or equipment conforms to procurement requirements is present at the site before use or installation. This documentary evidence is traceable to the item and shall be retained at the nuclear power plant site and shall be sufficient to identify the specific requirements such as codes, standards, or specifications met by the purchased material and equipment.</p> <p>(Chapter 7, Paragraph 2.4.2.) The Company does receiving inspections using procedures and inspection instructions to verify conformance to the specified requirements, using objective evidence to check such features as: complete documentation and visual inspection of: proper configuration; identification; dimensional, physical and other characteristics; freedom from shipping damage; and cleanliness. Items, which cannot meet the purchase order requirements, will be segregated and controlled as defined in the applicable procedures.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Materials and items received without proper identification are tagged or segregated until satisfactory documentation and identification is obtained.</p>	<p>(2.3.) If physical identification is either impractical or insufficient for proper control, the Company controls an item by physical separation, procedural control or other appropriate means.</p> <p>(Chapter 15, Paragraph 2.3) When practical, the Company segregates nonconforming items by placing them in a clearly identified and designated hold area until properly dispositioned. When segregation is impractical or impossible due to physical conditions such as size, weight or access limitations, other precautions are employed to preclude inadvertent use of a nonconforming</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>item.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procedures require Q, F, and R-designated materials, parts, and components to be marked or otherwise identified, and require that such identity be maintained either on the item or on records traceable to it throughout receipt, storage, installation, and use.</p> <p><i>(Note: "Q" designated equipment identifies those activities and services to which the operational QAP applies during operations. "F" designated equipment relates to fire protection and "R" designated equipment relates to the radioactive waste management system.)</i></p>	<p>(2.2.) Responsible organizations document and maintain identification and traceability of items from initial receipt, throughout fabrication, installation, and use of the items such as: subassemblies, components, equipment numbers, part numbers, serial number, heat treatment number, batch or lot numbers.</p> <p>(2.3.) Identification is on the item where practicable. Identification is clear, unambiguous and indelible. Identification does not affect the fit, function, quality, and service life of the item. If the item cannot be practicably marked, the Company uses records traceable to the item for identification.</p> <p>(Chapter 2, Paragraph 1.0.) The QAP also applies to certain non-safety related structures, systems, components and activities to a degree consistent with their importance to safety.</p> <p>(Appendix A, Paragraph 1.0.) It is the Company's policy to assure a high degree of availability and reliability for its nuclear plants while ensuring the health and safety of the public and its workers. Therefore, the Quality Assurance Program is applied in a graded manner to certain areas and activities that are not clearly defined as safety related. The Company calls this application Augmented Quality.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Protection against use of incorrect or defective items is also provided.</p>	<p>(2.2.) When installed material or equipment is removed for maintenance, repair, or modification, control measures are implemented to ensure proper identification and traceability is maintained. Before use or installation of an item, the installer verifies that identification has been</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>maintained.</p> <p>(Chapter 14, Paragraph 2.1.) Tagging, labeling, color-coding, physical separation, or using an inventory system identifies acceptable or unacceptable items for installation.</p> <p>(Chapter 15, Paragraph 2.3.) When practical, the Company segregates nonconforming items by placing them in a clearly identified and designated hold area until properly dispositioned. When segregation is impractical or impossible due to physical conditions such as size, weight or access limitations, other precautions are employed to preclude inadvertent use of a nonconforming item.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Material identification and traceability is maintained for rework, repairs, and modifications throughout operation.</p>	<p>(2.2.) When installed material or equipment is removed for maintenance, repair, or modification, control measures are implemented to ensure proper identification and traceability is maintained. Before use or installation of an item, the installer verifies that identification has been maintained.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Identification and control of materials, parts, and components are the responsibility of maintenance, engineering, and site supply.</p>	<p>(2.1.) The Company establishes measures for the identification and control of materials, parts and components, including partially fabricated assemblies, and assures that only correct and accepted items are used or installed. Identification is maintained on the items or in documents traceable to the items. Physical identification shall be used to the maximum extent possible.</p> <p>(2.2.) Responsible organizations document and maintain identification and traceability of items from initial receipt, throughout fabrication, installation, and use of the items</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>such as: subassemblies, components, equipment numbers, part numbers, serial number, heat treatment number, batch or lot numbers.</p> <p>Discussion: The term “The Company” is used in lieu of the HCGS functions and responsibilities of maintenance, engineering, and supply. QATR Chapter 1 supports these functions at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procurement document controls are the responsibility of Procurement Engineering.</p>	<p>(2.1.) The Company establishes measures for the preparation, review, and approval of procurement documents for those items and activities within the scope of the QATR. Procurement documents at all tiers include or reference the appropriate regulatory, technical, and quality requirements necessary to assure adequate quality. These requirements include reference to 10CFR21 when applicable.</p> <p>Discussion: The term “The Company” is used in lieu of the HCGS functions and responsibilities of Procurement Engineering. QATR Chapter 1 supports this function and responsibility at the corporate levels under the management position responsible for engineering and technical services.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Receipt, storage, installation, inspection and test activities are the responsibility of site supply and maintenance.</p>	<p>(2.2.) Responsible organizations document and maintain identification and traceability of items from initial receipt, throughout fabrication, installation, and use of the items such as: subassemblies, components, equipment numbers, part numbers, serial number, heat treatment number, batch or lot numbers.</p> <p>(Chapter 7, Paragraph 2.1.1.) The company procedures, which address the procurement process and receipt and storage of material and equipment, clearly define the</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>responsibilities and interfaces between the line requisitioning organization, engineering, supply and quality assurance.</p> <p>(Chapter 10, Paragraph 2.1.) The Company plans and executes an inspection program to verify that activities affecting the quality of safety-related structures, systems, and components conform to documented requirements.</p> <p>(Chapter 11, Paragraph 2.1.1.) The Company establishes and controls a test program to assure that design and performance criteria have been satisfied and assures that testing does not adversely affect the safe operation of the plant.</p> <p>Discussion: The term "The Company" is used in lieu of the HCGS functions and responsibilities of site supply and maintenance. QATR Chapter 1 supports these functions at the site levels reporting to the management position responsible for plant operations."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. CC-AA-11, "Nonconformances."
2. Exelon QATR, Revision 76, Chapter 8.
3. HC.OP-AP.ZZ-0103, "Tagging Request and Inquiry System (TRIS+)"
4. Hope Creek UFSAR Section 17.2.8.
5. HU-AA-101, "Human Performance Tools and Verification Practices."
6. MA-AA-1000, "Conduct of Maintenance Manual."
7. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
8. NC.PM-DG.ZZ-0010, "SAP Warehouse Management Storage Location Data."
9. ND.PM-AP.ZZ-0300,"Storage and Handling of Material."
10. NO-AA-500, "Approved Supplier Qualification Activities."
11. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
12. NQA-1-1994, Basic Requirement 8, "Identification and Control of Items."
13. NQA-1-1994, Supplement 8S-1, "Supplementary Requirements for Identification and Control of the Items."
14. OP-AA-100, "Conduct of Operations."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

15. OP-AA-109-101, "Clearance and Tagging."
16. OP-MW-101-101, "Clearance and Tagging."
17. RM-AA-101, "Management of Records."
18. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
19. SAFETY MANUAL ADDENDUM 9, "Corporate Safety Tagging Rules."
20. SH.OP-AP.ZZ-0015, "Nuclear Training Center Safety Tagging Rules."
21. SH.OP-AP.ZZ-0015, Safety Tagging Operations."
22. Site Technical Specifications Section 6.0, "Administrative."
23. SM-AA-101, "Certification of Receipt Inspectors."
24. SM-AA-102, Warehouse Operations."
25. SM-AA-102-1001, "Warehouse Guidelines."
26. SM-AA-300, " Procurement Engineering Support Activities."
27. SM-AA-400, "Supply Procurement."
28. SM-AA-401, "Material Procurement."
29. SM-SH-102-1001, "Warehouse Operations."
30. SM-SH-102-1002, "Warehousing Guidelines."
31. SM-SH-404-1000, "Nuclear Procurement and Control of Materials and Services."
32. TQ-AA-119-0202, "Clearance and Tagging Training Program."
33. TQ-MA-119-0202-1001, "Clearance and Tagging Training Program for Mid Atlantic Sites."
34. TQ-MW-119-0202-1001, "Clearance and Tagging Training Program Requirements."

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.8 are adequately addressed within the scope of the QATR.
- Administrative changes need to be made to the UFSAR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

**Reduction in Commitment?**

**Yes**

**No**

**X**

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Actions / Comments</b>			
<p>1. Remove UFSAR Section 17.2.8 when the QATR is approved for use.</p> <p style="padding-left: 40px;">a. Action Completed</p> <p>Re-Review Completed By: W. M. Eckman – 07/31/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/11/2006



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 15)</b>	17.2.9 – Control of Special Processes	<b>Chapter No. (Rev. 76)</b>	17.2.9 – Control of Special Processes
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Special process controls provide for the use of qualified procedures, equipment, personnel, and documentation of satisfactory completion of an activity.</p>	<p>(1.0.) Processes affecting quality of items or services shall be controlled. Special processes that control or verify quality shall be performed by qualified personnel, using qualified procedures, in accordance with specified requirements and are properly documented and evaluated.</p> <p>Discussion: A list of equipment, parts, components, and tools needed for company processes and activities are stated in procedures.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>		
<p>Special processes are generally those processes where direct inspection is impossible or disadvantageous.</p>	<p>(1.0.) Examples of special processes include, but are not limited to welding, heat-treating, chemical cleaning, and non-destructive examination (NDE).</p> <p>(Appendix D, "Definitions") Special Process - a process, the results of which are highly dependent on the control of the process or skill of the operator, or both.</p> <p>Discussion: There is a philosophical difference in the definition of a special process for PSEG and Exelon. The QATR defines what a special process is and provides examples in Chapter 9.</p> <p>Conclusion: The QATR addresses this statement of the HCGS UFSAR.</p>		

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Procedures have been established for special processes such as welding, brazing, soldering, concreting, protective coating, cleaning, heat treating, and nondestructive examination (NDE) to assure compliance with codes and design specifications.</p>	<p>(2.2.) Instructions, procedures, drawings, checklists, or other appropriate means control processes. Process controls specify the prerequisite steps, processing details, conditions to be maintained during the process, equipment requirements, inspection and test requirements, acceptance criteria, and record requirements.</p> <p>(1.0.) Examples of special processes include, but are not limited to welding, heat-treating, chemical cleaning, and non-destructive examination (NDE).</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Engineering Director is responsible for preparing special process procedures such as concreting, protective coating and cleaning, welding, brazing, soldering and heat-treating.</p>	<p>(1.0.) Examples of special processes include, but are not limited to welding, heat-treating, chemical cleaning, and non-destructive examination (NDE).</p> <p>(2.1.) The Company organization directing work during repair, replacement, modification, or in-service inspection (ISI) activities is responsible for controlling special processes. Special process controls are assured through independent assessment and inspection activities.</p> <p>(Chapter 1, Paragraph 2.2.3.2.) The management position responsible for engineering &amp; technical services provides oversight and support and is accountable for defining standard programs, processes, policies, procedures, delivering effective services and support, providing technical oversight of program implementation, and supporting the deployment and sharing of best practices throughout the nuclear organization in accordance with the QAP, regulatory requirements, and the ASME Code.</p> <p>Discussion: The term "The Company" is used in lieu of the HCGS function and responsibilities of an Engineering Director. QATR Chapter 1 supports this function at the corporate and site levels."</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Engineering is responsible for preparing specifications for non-destructive examination (NDE). These specifications are reviewed and approved by the assigned department process owner specialist for necessary QA program requirements.</p>	<p>(2.3.) Measures shall be established and documented to assure that special processes are accomplished under controlled conditions in accordance with applicable codes, standards, applications criteria, regulatory requirements and commitments, and other special requirements including the use of qualified personnel and procedures. Special processes are controlled by instructions, procedures, drawings, checklists, travelers, or other appropriate means.</p> <p>Discussion: The term “The Company” is used in lieu of the HCGS Engineering and assigned department process owner functions and responsibilities. QATR Chapter 1 supports these functions at the corporate and site levels.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS audits, and performance-based assessments assure that qualification of special processes, equipment and personnel have been satisfactorily performed.</p>	<p>(Chapter 18, Paragraph 2.1.4.) Performance assessments are conducted to assess specific activities, processes, and records on the basis of their impact and importance relative to safety, reliability, and functionality with respect to risks and consequences. Assessments can be focused on areas most in need of improvement.</p> <p>(Chapter 18, Paragraph 2.1.4.) Additional unscheduled audits and assessments may also be performed at various stages of activities, based on the nature and safety significance of the work being done; to verify continued adherence to and effectiveness of the quality systems. Objective evidence shall be examined to the extent necessary to determine that a quality program is being effectively implemented. <i>(Note: The chart in Appendix B specifies the areas audited and/or assessed.)</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Procedures for implementing the requirements of the specifications are prepared either by PSEG Nuclear or by supplier personnel, and are reviewed by a qualified specialist with the exception of special process procedures prepared by code suppliers holding a valid certificate of authorization.</p> <p><i>(NOTE: The paragraph below defines a qualified specialist.)</i></p> <p>A qualified specialist is a person who has certified proficiency in the area of review (e.g., personnel reviewing NDE procedures are required to have Level III certification in the subject NDE area, and personnel reviewing other procedures or reports are required to be qualified in accordance with the Engineering Support Personnel Program).</p>	<p>(1.0.) Processes affecting quality of items or services shall be controlled. Special processes that control or verify quality shall be performed by qualified personnel, using qualified procedures, in accordance with specified requirements and are properly documented and evaluated.</p> <p>(2.3) The Company assures that qualification of Company, contractor, and subcontractor ASME Code NDE procedures is verified by the Authorized Inspection Agency (AIA).</p> <p>(2.3) For special processes not covered by the existing codes or standards, or when the quality requirements of an item exceed the requirements of established codes or standards, the necessary qualifications of personnel, procedures and equipment shall be defined in the procedure.</p> <p>(2.4.) Company, contractor, and subcontractor personnel performing special processes are trained, tested, qualified, or certified in accordance with a procedure that meets applicable requirements. When permitted by applicable requirements, the Company may qualify and control contractor and subcontractor personnel.</p> <p>Discussion: The Exelon QATR uses the broad term “qualified personal.” This term encompasses the PSEG definition of “qualified specialist.” “The Company” is used in lieu of “PSEG Nuclear” in the QATR.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Qualification records of procedures, equipment, and personnel associated with special processes are retained as stated in Section 17.2.17.</p> <p><i>(Note: UFSAR Section 17.2.17 is “Quality Assurance</i></p>	<p>(2.5.) Special process records provide evidence that special processes were performed in accordance with approved procedures by qualified personnel. These records are retained by the Company or by the contractor or subcontractor as required by procurement documents.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Records,")</p>	<p>Records are maintained for currently qualified personnel, processes, and equipment for each special process.</p> <p>(Chapter 17, Paragraph 1.0.) The Company establishes and implements a program, which defines requirements and responsibilities for identification, generation, collection, compilation, storage, maintenance, retention, and retrieval of records necessary to provide evidence of quality in design, fabrication, installation, inspection, testing, and operating activities.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
-------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. Exelon QATR, Revision 76, Chapters 1, 9, 17, and Appendix D.
2. Exelon Series Procedures ER-AA, ER-AB, ER-AP, ER-MA, and ER-MW.
3. Hope Creek UFSAR Section 17.2.9.
4. NC.NA-AP.ZZ-0066, "Control of Special Processes."
5. NO-AA-21, "Nuclear Oversight Audit Process Description."
6. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
7. NQA-1-1994, Basic Requirement 9, "Control of Processes."
8. NQA-1-1994, Supplement 9S-1, "Supplementary Requirements for Control of Processes."
9. RG 1.33, "Quality Assurance Program Requirements (Operation)."
10. RM-AA-101, "Records Management Program."
11. RM-AA-102, "Control of Documents."
12. RM-AA-103, "Electronic Records Program."
13. RM-AA-104, "Records Recovery Control Plan."
14. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
15. Site Technical Specifications, Section 6.0, "Administrative."
16. Special Process Procedures Manual (SPPM).
17. TQ-AA-112, "Nuclear Oversight Training, Qualification, and Certification."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<b>Analysis</b>				
<p>1. QATR Appendix D defines a “Special Process Procedures Manual” as a compilation of company procedures governing nondestructive examination and special processes such as welding and heat-treating.</p> <p>Discussion: There is no entry in the QATR that would require a definition of a special procedures manual. There are company processes and procedures for specialized work that are generically implemented across the fleet. Most of these processes and procedures reside within the “Engineering” discipline such as the CC-AA, CC-MA, ER-AA, ER-AB, ER-MA, and ER-MW series procedures and work instructions. Due to the generic nature of this definition, a specific name entry in the QATR for a compilation of generic numbered procedures is not required and can be eliminated.</p> <p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>– HCGS UFSAR 17.2.9 elements are adequately addressed within the scope of the QATR.</li> <li>– Administrative changes need to be made to the UFSAR and the QATR for proper transition (see below).</li> <li>– The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>	
<p>1. Remove the “Special Processes Procedures Manual” definition in QATR Appendix D (2.121).</p> <p style="padding-left: 20px;">b. Action Complete</p> <p>2. Remove HCGS UFSAR Section 17.2.9 when the QATR is approved for use.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> <p>Re-Review Completed By: W. M. Eckman – 07/31/07</p>	
<b>Proposed By:</b>	Robert F. Rysner
<b>Date:</b>	4/12/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 15, 13, &amp; 10)</b>	17.2.10 - Inspection	<b>Chapter No. (Rev. 76)</b>	10 - Inspection
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>A planned inspection program is conducted and documented by personnel appropriately qualified in accordance with Section 17.2.2.</p> <p><b>(Note: HCGS UFSAR Section 17.2.2 is the “Quality Assurance Program.” And includes references to guides, codes, and standards such as RG 1.8, ANSI/ANS 3.1, RG 1.58 and N45.2.6 -1978, 10CFR55, VT1, 2,3, NDE and ASME Section XI.)</b></p>		<p>(1.0.) The Company plans and executes an inspection program to verify that activities affecting the quality of safety-related structures, systems, and components conform to documented requirements.</p> <p>(2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current.</p> <p>(2.3.) Qualified personnel perform inspections. Inspectors with valid certifications perform inspections for acceptance. Inspectors are independent of those who perform or directly supervise the activity being inspected. On-the-Job training inspections shall be performed under the direct supervision of qualified personnel.</p> <p>(2.6.) Independent verifications are conducted by qualified personnel using approved procedures.</p> <p>(2.6) Personnel must have qualifications of greater than or equal to the activity being verified.</p> <p>Discussion: The HCGS UFSAR states the qualification standards and codes for inspection personnel in Chapter 17.2.2 and is supported by the QATR Chapter 2 and Appendix C. Regulatory Guide 1.58 was superseded by NQA-1-1994.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The inspection program verifies conformance to the established procedure, code, or standard, consistent with the item's or activity's importance to safety.</p>	<p>(1.0.) The Company plans and executes an inspection program to verify that activities affecting the quality of safety-related structures, systems, and components conform to documented requirements. For modification and non-routine maintenance activities, inspections are conducted in a manner similar (i.e. frequency, type and personnel performing such inspections) to those associated with construction phase activities.</p> <p>Discussion: The definition in QATR Appendix D for "Safety Related" supports the "important to safety" aspect in the HCGS UFSAR and states in part that: "Systems, structures and components, which are considered important to safety because they perform safety actions, required to avoid or mitigate the consequences of abnormal operation transients or accidents." The QATR in Appendix A and NQA-1-1994 supports a graded approach for those items that are important to safety .</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>The inspection program for maintenance and modification activities is based upon the following three important levels of inspection:</p> <ol style="list-style-type: none"> <li>1. Worker Checks - Quality cannot be achieved unless the worker performs the activity in a quality manner. The worker is the individual best able to control the quality of work performed. Work steps that contain elements impacting plant equipment or systems have provisions for signoff by the worker. This worker sign-off establishes accountability for the activity and is acknowledgement that the activity has been performed as specified in the work step.</li> </ol>	<p>(Policy Statement, Paragraph 2.0.) All Company personnel who work directly, or indirectly, for the Company are responsible for the achievement of quality in their work. Accordingly, all Company personnel and its contractors engaged in supporting nuclear generation activities shall comply with the requirements of our Quality Assurance Program (QAP).</p> <p>(Chapter 5, Paragraph 2.2.) Procedures shall be prepared, reviewed, approved, and used as prescribed in writing, and shall contain step by step instructions in the degree of detail necessary for qualified individuals to perform the required function or task. Where appropriate, these procedures will include checklists containing the necessary attributes to be observed or measured.</p>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Discussion: Worker sign-off is a function of instructions delineated in procedures. For example, a critical step or entered value may require the worker to sign-off on that particular step. Other examples include verifications, acceptability of results, authorizing individuals etc. The QATR provides for all company personnel are responsible for the achievement of quality, which includes "the worker level."</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately address this statement of the HCGS UFSAR.</p>
<p>2. Supervisory Inspection - Although the work supervisor may have overall responsibility for the conduct and performance of the work activity, certain conditions at the work location require supervisory inspection to increase confidence that work activities are completed as specified through familiarity of the work activity, work group, or past experience. Supervisory inspections are established in the appropriate work procedure and accomplished through direct observation of the work activity.</p>	<p>(2.3.) Second line supervisory personnel may conduct inspection of operating activities or other qualified personnel not assigned first line supervisory responsibility for the conduct of the work. Operating activities are defined as work functions associated with normal operations of the plant, routine maintenance, and certain technical services routinely assigned to the onsite operating organization.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>3. Independent NOS Quality Verification (QV) Inspection - Independent QV inspections are not intended to dilute or replace the responsibility of the worker check or supervisory inspection for quality of work. Independent QV inspections provide the maximum confidence attainable that the work activity has been performed in accordance with the overall objective.</p>	<p>(2.6.) Independent verifications are conducted by qualified personnel using approved procedures. Characteristics to be verified and methods to be employed shall be specified. Verification results and unacceptable conditions identified shall be documented. Verifications shall be performed by persons other than those who performed or directly supervised the work being verified. Personnel must have qualifications of greater than or equal to the activity being verified.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Independent QV Inspections will consist of field inspection based on pre-implementation review and closure review for compliance with Inspection Hold Point</p>	<p>(2.4.) Inspections are performed using approved instructions, procedures, process sheets, travelers, or checklists and applicable drawings.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

(IHP) requirements as designated in selected design change packages, procedures, and work packages.

- Inspections are performed for each work or operating activity where necessary to verify quality. Where inspection sampling is used to verify the acceptability of a group of items, the sampling procedure shall be based on recognized standard practices.
- Process monitoring may be used when inspection of processed material or products is impossible or impractical. When necessary, to ensure quality throughout the duration of the process, both inspection and process monitoring will be systematically used to verify conformance to requirements.
- When inspections must be performed before work can continue, hold points are established in appropriate documents. Consent to waive hold points are recorded prior to continuation of work. When inspection is desired, but not mandatory before work can continue, witness points are established. Completion of hold and witness points is documented.
- When acceptance criteria are not met, corrected areas are re-inspected. Changes to, or rework of, an item after inspection requires re-inspection of the affected areas. Such inspections are documented in the Corrective Action Program.
- A final evaluation is performed. Inspection results are reviewed to confirm that required inspections and quality records have been completed, identified non-conformances have been resolved and the item conforms to specified requirements. Engineering, Maintenance, Operations or Quality Verification approves final acceptance of the item.

(2.6.) Independent verifications are conducted by qualified personnel using approved procedures. Characteristics to be verified and methods to be

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>employed shall be specified. Verification results and unacceptable conditions identified shall be documented. Verifications shall be performed by persons other than those who performed or directly supervised the work being verified. Personnel must have qualifications of greater than or equal to the activity being verified.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Guidelines for establishing independent QV inspections are defined in the Inspection Program.</p>	<p>(1.0.) The Company plans and executes an inspection program to verify that activities affecting the quality of safety-related structures, systems, and components conform to documented requirements.</p> <p>(2.1.) The Company establishes controls for coordination and execution of inspection plans. Company quality verification organizations or other qualified organizations are responsible for implementation of established inspection plans.</p> <p>Discussion: Exelon procedures detail the guidelines for establishing independent QV inspections.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Independent QV inspections are identified as Inspection Hold Points (IHPs) in the applicable work instructions and are performed by qualified individuals independent of the work activity. IHPs cannot be passed without authorization from the applicable management representative responsible for the independent QV inspection activity.</p>	<p>(2.3.) Qualified personnel perform inspections. Inspectors with valid certifications perform inspections for acceptance. Inspectors are independent of those who perform or directly supervise the activity being inspected.</p> <p>(2.4.) When inspections must be performed before work can continue, hold points are established in appropriate documents. Consent to waive hold points are recorded prior to continuation of work. When inspection is desired, but not mandatory before work can continue, witness points are established. Completion of hold and witness points is documented.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.6.) Independent verifications are conducted by qualified personnel using approved procedures. Characteristics to be verified and methods to be employed shall be specified. Verification results and unacceptable conditions identified shall be documented. Verifications shall be performed by persons other than those who performed or directly supervised the work being verified. Personnel must have qualifications of greater than or equal to the activity being verified.</p> <p>Discussion: Exelon procedures detail the level of management responsible for IHPs. (See NQA-1, 10S-1, paragraph 4, "Inspection Hold Points.")</p> <p>Conclusion: The QATR, existing procedures governed by the QATR, and NQA0-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>General guidelines for the inspection criteria are incorporated into various administrative and work instructions.</p>	<p>(2.2.) The Company prepares documented inspection plans. These inspection plans are applied when the activity is started. The inspection plans may be separate documents or an integral part of approved instructions, procedures or drawings. Related codes, standards, specifications and design documents are used to develop the inspection plans. The plans identify:</p> <ul style="list-style-type: none"> <li>– Acceptance criteria.</li> <li>– Activities to be inspected.</li> <li>– Inspection characteristics.</li> <li>– Inspection techniques/equipment (including accuracy requirements).</li> <li>– Provisions for inspection and test status.</li> <li>– Provisions for the recording of inspection results.</li> <li>– Qualification requirements.</li> <li>– Responsible organizations.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Independent QV inspections are performed by NOS QV Inspection personnel or other qualified individuals who are independent of the work activities.</p> <p>If the individuals performing independent inspections are not part of the NOS organization, the inspection procedures, personnel qualification criteria, and independence from undue pressure, such as cost and schedule, are reviewed for acceptability by the NOS organization prior to initiation of the activity.</p>	<p>(2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current.</p> <p>(2.3.) Qualified personnel perform inspections. Inspectors with valid certifications perform inspections for acceptance. Inspectors are independent of those who perform or directly supervise the activity being inspected. On-the-Job training inspections shall be performed under the direct supervision of qualified personnel.</p> <p>(Chapter 1, Paragraph 2.5.) Personnel performing NOS assessment functions for the Company have the responsibility, authority, organizational freedom, and sufficient independence from cost and schedule.</p> <p>(Chapter 1, Paragraph 2.5.) The Company may delegate certain phases of the work to non-company labor and contracted services, which act as the Company's agents in assigned areas.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Work procedures and inspection instructions include, as required, characteristics to be inspected, method of inspection, acceptance/rejection criteria, required measuring and test equipment, and required reference documents. Documentation includes inspection identification and results of inspection performance.</p>	<p>(2.2.) The Company prepares documented inspection plans. These inspection plans are applied when the activity is started. The inspection plans may be separate documents or an integral part of approved instructions, procedures or drawings. Related codes, standards, specifications and design documents are used to develop the inspection plans.</p> <p>The plans identify:</p> <ul style="list-style-type: none"> <li>– Acceptance criteria.</li> <li>– Activities to be inspected.</li> <li>– Inspection characteristics.</li> <li>– Inspection techniques/equipment (including</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>accuracy requirements).</p> <ul style="list-style-type: none"> <li>– Provisions for inspection and test status.</li> <li>– Provisions for the recording of inspection results.</li> <li>– Qualification requirements.</li> <li>– Responsible organizations.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>As a result of its review, the Station Operations Review Committee (SORC) may recommend additional or different inspection hold points to the organization performing the work activity.</p>	<p>(Chapter 1, Paragraph 2.3.5.) The Plant Operations Review Committee (PORC) is a multi-disciplined committee responsible for review of activities that affect nuclear safety, reports to, and advises the management position responsible for plant operation on matters related to nuclear safety.</p> <p>The PORC shall ensure that plant activities are conducted safely and do not require NRC review and approval prior to implementation or changes to the Technical Specifications.</p> <p>The PORC functions in accordance with written instructions, which delineate committee composition, responsibility, authority, member qualifications, meeting frequency, subjects to be reviewed, reporting requirements, and administrative controls under which the group operates.</p> <p>Discussion: Both PSEG and Exelon have the flexibility built in sub-tier procedures for the insertion of inspection hold points. The manager responsible for plant operation and the on-site review committee chairman may (at their discretion) place inspection hold points for those work activities that support safe operation of the nuclear facility. (Ref: LS-AA-106, "Plant Operations Review Committee" and NC.NA-AP.ZZ-0004 (Q), "Station Operations Review Committee.")</p> <p>Conclusion: The QATR and existing procedures governed by the QATR adequately addresses this</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>Periodic performance based assessments, other than IHPs, are performed by qualified individuals other than those who performed or directly supervised the activity being inspected.</p>	<p>statement of the HCGS UFSAR.</p> <p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p><i>(Chapter 18, 2.1.3.) Experienced and qualified personnel perform assessments and audits and are familiar with written procedures, standards, and processes applicable to the area being evaluated.</i></p> <p><i>Assessment and audit personnel shall have sufficient authority and organizational freedom to make the assessment and audit process meaningful and effective and shall not have direct responsibilities in the areas to be assessed. They shall have access to the plant records necessary to fulfill their function.</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Typical performance based assessments are described in QA Program procedures.</p>	<p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>An independent organization shall perform NDE as required, using qualified individuals other than those who performed or directly supervised the activity.</p>	<p>(2.6.) Verification results and unacceptable conditions identified shall be documented. Verifications shall be performed by persons other than those who performed or directly supervised the work being verified. Personnel must have qualifications of greater than or equal to the activity being verified.</p> <p>(Chapter 9, Paragraph 1.0.) Processes affecting quality of items or services shall be controlled. Special processes that control or verify quality, shall be performed by qualified personnel, using qualified procedures, in</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>accordance with specified requirements and are properly documented and evaluated.</p> <p>Discussion: An independent organization can be qualified contractors, other Company work groups, as long as they are qualified to perform NDE and are independent of those who performed or supervised the activity.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>When inspections are performed by individuals other than those who performed or directly supervised the work, but who belong to the same work group, and the activity involves breaching a pressure-retaining boundary, the quality of the work is demonstrated through appropriate testing, unless restrictions such as ALARA considerations prevent such testing.</p>	<p>(2.6.) Independent verifications are conducted by qualified personnel using approved procedures. Characteristics to be verified and methods to be employed shall be specified. Verification results and unacceptable conditions identified shall be documented. Verifications shall be performed by persons other than those who performed or directly supervised the work being verified</p> <p>(Chapter 11, Paragraph 2.1.2.) The program uses written test procedures, which include the requirements and acceptance limits from applicable design documents. The Company reviews and approves test procedures and changes to test procedures, including changes that alter test sequence, in a similar manner to the original. (Note: Testing specifics are listed in 2.1.2.1, 2.1.2.2, and 2.1.2.3.)</p> <p>Conclusion: The QATR and existing procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The applicable inspection and retest requirements necessary to assure that modifications, rework, or repairs have been accomplished correctly are included in the design change package, work order, or procedure.</p> <p>The inspection and retest requirements for modification, rework, and repair are based on the original inspection and test program, as well as the nature and scope of the</p>	<p>(1.0.) The Company plans and executes an inspection program to verify that activities affecting the quality of safety-related structures, systems, and components conform to documented requirements. For modification and non-routine maintenance activities, inspections are conducted in a manner similar (i.e. frequency, type and personnel performing such inspections) to those associated with construction phase activities.</p>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>modification or repair activity.</p>	<p>(Chapter 15, Paragraph 2.4.4.) The Company technically justifies dispositions designated "use-as-is," and "repair" to assure that the final condition of any nonconforming item meets applicable code requirements and will not adversely affect the safety, operability, or maintainability of the item, or of the component or system in which it is installed. The "as-built" records, if such records are required, reflect the accepted deviation.</p> <p>Discussion: NQA-1-1994 Supplement 10S-1, paragraph 7.4," Modifications, Repairs, or Replacements," states that for modifications, repairs, or replacements of items subsequent to final inspection, shall require reinspection or retest as appropriate, to verify acceptability.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Evaluation and review of inspection results are conducted by personnel certified Level II in ANSI/ASME N45.2.6 and SNT-TC-1A, as applicable.</p>	<p>(2.3.) A qualification program is established and documented to conform to applicable codes, standards, or licensing requirements. Qualifications and certifications are kept current.</p> <p>(2.3.) Qualified personnel perform inspections. Inspectors with valid certifications perform inspections for acceptance. Inspectors are independent of those who perform or directly supervise the activity being inspected. On-the-Job training inspections shall be performed under the direct supervision of qualified personnel.</p> <p>(Chapter 9, Paragraph 2.4.) The appropriate NDE Level III is responsible for personnel and procedure development and qualification to ASME Code requirements for nondestructive examination.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Continuation): This position holder is qualified and certified in accordance with ASNT SNT-TC-1A / ASNT CP-189 and may designate qualified deputies for certification of personnel and procedures, and final Company authority of the interpretation of any NDE indication that has been recorded by a Level II Examiner or by a NDE contractor's Level III examiner.</p> <p>Training and certification of personnel associated with nondestructive examination are carried out in accordance with the requirements of ASME NQA-1 and ASME Section XI. A Level III certified person administers all ASME Code examination activities.</p> <p>Discussion: ANSI N45.2.6 is replaced by NQA-1-1994.</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>A planned and documented NOS performance-based assessment program is conducted by NOS for selected Quality Program activities, including the inspection program and personnel qualifications.</p> <p>Monitoring of the implementation of the QA program by station and site contractor personnel is conducted by NOS, in addition to offsite supplier activities as appropriate.</p>	<p>(Chapter 18, Paragraph 2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p><i>(Note: The chart in Appendix B specifies the areas audited and/or assessed.)</i></p> <p>(Chapter 7, Paragraph 2.3.1.) The Company establishes measures to interface with and to verify supplier performance.</p> <p>(Chapter 4, Paragraph 2.2.3.) The Nuclear Oversight Vendor Audit Group (NOVA) maintains a controlled list of evaluated suppliers that are audited on a triennial basis.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>The evaluated list of such vendors, suppliers, and contractors is described in controlling procedures for the appropriate safety classification except for procurement from other licensees that has a NRC approved quality program.</p> <p>(Chapter 7, Paragraph 2.3.3.) The Company or its agents verify the effectiveness of the supplier's quality program by survey, audit or surveillance. Verification is performed at intervals consistent with the importance to safety, complexity and quality of the product or services furnished.</p> <p>(Chapter 7, Paragraph 2.3.3.) Activities are witnessed or observed and the results documented when source verification is performed.</p> <p>The Company conducts audits per the requirements established in Chapter 18 or reviews audits performed by other license holders as defined in procedures. The results of these audits are used to support the maintenance of the list of evaluated suppliers.</p> <p>(Chapter 7, Paragraph 2.3.3.) Verification activities are conducted as early as practicable so that subsequent activities do not prevent disclosure of deficiencies. The Company's verification activities do not relieve the supplier of its responsibility for quality verification.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Conditions adverse to quality found during the conduct of monitoring are brought to the attention of the management responsible for the activity.</p>	<p>(2.4.) When acceptance criteria are not met, corrected areas are re-inspected. Changes to, or rework of, an item after inspection requires re-inspection of the affected areas. Such inspections are documented in the Corrective Action Program.</p> <p>(Chapter 16, Paragraph 2.5.) The Company documents the identification of significant conditions adverse to quality, the cause of the condition, the corrective action taken, and reports these items to the appropriate levels of</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>management, NSRB, and as applicable, PORC.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>A representative from NOS routinely attends and participates in plant work schedule and status meetings to assure that they are kept abreast of day-to-day work assignments throughout the plant and that there is adequate NOS coverage relative to procedural and inspection controls, acceptance criteria, and NOS staffing and qualification of personnel to carry out NOS assignments.</p>	<p>Chapter 18, paragraph 1.0.) Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>(Chapter 18, Paragraph 2.1.1.). Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies. The management position responsible for NOS, or designated staff member(s), approves them. Schedules are reviewed semi-annually and revised accordingly to assure that coverage is maintained current.</p> <p>(Chapter 18, Paragraph 2.1.3.) Experienced and qualified personnel perform assessments and audits and are familiar with written procedures, standards, and processes applicable to the area being evaluated</p> <p>Discussion: The specific details of how NOS provides overviews and coverage of plant activities is delineated in sub-tier procedures that applies to the audit and assessment process (see the "Documents" section below).</p> <p>Conclusion: The QATR and existing procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Documents

1. 56 Federal Register No. 36175 dated 7/31/91.
2. AD-AA-1, "Document Usage and Administration."
3. AD-AA-10, "Administrative Program Description."
4. AD-AA-101, "Processing of Procedures and T&RM."
5. AD-AA-101-1002, "Writers Guide for Procedures."
6. AD-AA-104-101, "Procedure Use and Adherence."
7. ANSI N45.2.6, "Qualifications of Inspection, Examination, and Testing Personnel for Nuclear Power Plants"
8. CC-AA-11, "Non-Conformances."
9. ER-AA-335-1000, "Nondestructive Examination (NDE) Program."
10. Exelon Engineering Procedures CC-AA, CC-MA, ER-AA, ER-AB, ER-AP, ER-MA, and ER-MW Series.
11. Exelon QATR, Revision 76, and Chapters: 2, 4, 7, 9, 10, 15, 17, 18, & Appendix C."
12. Exelon Supply Procedures SM-AA and SH-AA Series.
13. Hope Creek UFSAR Sections: 17.2.10, 17.2.2, & 1.8.1.58.
14. LS-AA-106, "Plant Operations Review Committee."
15. LS-AA-110, Commitment Management."
16. LS-AA-120, "Corrective Action Procedure."
17. LS-AA-120, Issue Identification and Screening Process."
18. LS-AA-2, "Plant On-Site Review Function."
19. NC.LR-AP.ZZ-0030, Commitment Management."
20. NC.RP-AP.ZZ-0007, "ALARA Process."
21. NC.RP-DG.AI-0003, "ALARA Engineering Controls."
22. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
23. NO-AA-200-002-1002, "Nuclear Oversight Audit Templates."
24. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
25. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
26. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
27. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
28. NO-AA-30, "Independent Inspection Process Description."
29. NO-AA-300-001, "Inspection Planning and Execution of Quality Inspection Activities."
30. NO-AA-300-001-1001, "Nuclear Oversight Independent Inspection Plan."
31. NQA-1, Subpart 2.5, "Quality Assurance Requirements for Hoisting, Rigging, and Transporting of Items for Nuclear Power Plants."
32. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
33. NQA-1-1994, Basic Requirement 10, "Inspection."
34. NQA-1-1994, Basic Requirement 18, "Audits."
35. NQA-1-1994, Supplement 10S-1, "Supplementary Requirements for Inspection."
36. NQA-1-1994, Supplement 18S-1, "Supplementary Requirements for Audits."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

37. RM-AA-101, "Records Management Program."
38. RM-AA-102, "Control of Documents."
39. RM-AA-103, "Electronic Records Program."
40. RM-AA-104, "Records Recovery Control Plan."
41. RP-AA-16, "ALARA Program Description."
42. RP-AA-401, "Operation ALARA Planning and Controls."
43. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
44. Site Technical Specifications Section 6.0, "Administrative."
45. SNT-TC-1A, "Recommended Practice – Guidelines for the Qualification and Certification of Non-Destructive Testing Personnel."
46. TQ-AA-112, "Nuclear Oversight Training, Qualification, and Certification."
47. TQ-AA-112-1003, "Nuclear Oversight Quality Verification Qualification Documentation."
48. TQ-AA-112-1004, "Quality Verification Certification and Records Package."
49. TQ-AA-112-1008, "Nuclear Oversight Quality Verification Training and Certification."

### Analysis

1. UFSAR 1.8.1.58, Conformance to Regulatory Guide 1.58, Revision 1, September 1980: "Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel." Although NRC Regulatory Guide 1.58 was withdrawn by the NRC on July 31, 1991, HCGS commitments, as stated below, are not affected by this withdrawal. HCGS complies with Regulatory Guide 1.58.

The architect/engineer indicates that the requirements of ANSI N45.2.6-1978, as modified and interpreted by Regulatory Guide 1.58, are met by its quality program for safety-related items.

During the operations phase, PSE&G complies with Regulatory Guide 1.58, Revision 1 with an exception to Position C.6, which requires a high school diploma or an earned General Education Development equivalent. ANSI N45.2.6-1978, Paragraph 3.5, recognizes that other factors may provide reasonable assurance, i.e., previous performance, satisfactory completion of testing, that a person can competently perform a particular task. These factors will be considered when evaluating education and experience requirements for certification.

*(Exception – NQA-1-1994 Supplement 2S-1, Sections 2.5 & 2.6 addresses this item.)*

Discussion:

- NRC withdrew RG 1.58 in favor of ASME NQA-1 (1983). See 56FR 36175, 7/31/91.

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

- NQA-1 changes over N45.2.6 simplify and strengthen slightly the requirements for inspector qualifications. The key provision for assessment of an inspector's qualification based upon review of his performance has been maintained.
- RG 1.58 is not listed in QATR Appendix C.1.2 because of the NRC withdrawal and commitment to NQA-1-1994.

Conclusion:

- All items in the HCGS UFSAR 17.2.10 are adequately addressed within the scope of the QATR, NQA-1-1994, and implementing procedures.
- Administrative changes need to be made to the UFSAR and the QATR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

### Actions / Comments

1. The exception listed in HCGS UFSAR Section 1.8.1.58 is resolved by using NQA-1-1994.
  - No Action Required
2. Use NQA-1-1994 in lieu of ANSI N45.2.6. N45.2.6 was replaced by NQA-1, 1989 (2S-1 & 2A-1) and is included in NQA-1-1994 (2S-1, 2S-2, and 2A-1). Modify the applicable wording in HCGS UFSAR Section 1.8.1.58.
  - Action complete
3. Remove HCGS UFSAR in Sections 17. 2.10 when the QATR is approved for use.
  - Action complete
4. No changes are required to the QATR.
  - No Action Required

Re-Review completed by: W. M. Eckman – 08/01/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/12/2006
---------------------	------------------	--------------	-----------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13 &amp; 12)</b>	17.2.11 - Test Control	<b>Chapter No. (Rev. 76)</b>	11 – Test Control
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Q, F, and R-designated equipment and components that must be tested periodically to assure satisfactory performance, or have been replaced, modified, or repaired, are tested by qualified personnel in accordance with written procedures that provide acceptance criteria based on requirements contained in applicable design and procurement documents.</p> <p><i>(Note: “Q” designated equipment identifies those activities and services to which the operational QAP applies during operations. “F” designated equipment relates to fire protection and “R” designated equipment relates to the radioactive waste management system.)</i></p>		<p>(1.0.) A documented test program shall be established in accordance with applicable technical specifications, license conditions, and design documents to assure that all testing required demonstrating that the structures, systems, or components within the scope of this QAP will perform satisfactorily in service.</p> <p>(2.2.1.) The Company establishes and controls a test program to assure that design and performance criteria have been satisfied and assures that testing does not adversely affect the safe operation of the plant. The test program includes, as appropriate, procedures to ensure those structures, systems, subsystems, and components will perform in service. Testing is conducted by appropriately trained and qualified personnel. The extent of testing shall be based on the complexity of the modification, replacement, or repair.</p> <p>(2.1.2.) The program uses written test procedures, which include the requirements and acceptance limits from applicable design documents. The Company reviews and approves test procedures and changes to test procedures, including changes that alter test sequence, in a similar manner to the original.</p> <p>(Chapter 7, Paragraph 2.3.2.) Qualified individuals or its agents accomplish source inspections at the supplier’s facility to verify that the procurement item or service is being supplied in accordance with the requirements of the procurement documents. Such inspections, examinations or tests are accomplished in accordance with written procedures, plans, and/or checklists containing or referencing appropriate acceptance criteria.</p>	



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Provisions are implemented that assure that nonconformances are corrected or resolved prior to the initiation of the preoperational test program on the item.</p> <p>Retest requirements are provided by engineering specifications or the responsible engineer, or both as were the original test requirements.</p>	<p>(Chapter 15, Paragraph 2.4.5.) The Company re-examines repaired or reworked items using procedures and the original acceptance criteria unless the nonconforming item's disposition has established alternate acceptance criteria. Items that have been corrected are re-inspected or re-tested as required by the approved disposition.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Engineering, Maintenance and Operations departments are responsible for preparation of test procedures incorporating the engineering parameters.</p>	<p>(2.1.2.) The Company specifies specific test methods when they must be employed, uses written procedures or checklists, and documents the status of equipment both before and after testing.</p> <p>(2.1.2.) The organization responsible for the design of the item to be tested establishes the test requirements and acceptance criteria. Test requirements and acceptance criteria are based upon specified requirements contained in applicable design or other pertinent documents. Test requirements include specific characteristics to be tested.</p> <p>Discussion: The Engineering, Maintenance and Operations department responsibility for HCGS equivalent name in the QATR is "the Company" whose responsibilities are supported in Chapter 1, "Organization."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Test procedures prescribe, as applicable:</p> <ol style="list-style-type: none"> <li>1. Prerequisites, including completeness of test item(s)</li> </ol>	<p>(2.1.2.) The program uses written test procedures, which include the requirements and acceptance limits from applicable design documents. The Company reviews and approves test procedures and changes to test procedures, including changes that alter test sequence, in</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>2. Instructions for performing the test</p> <p>3. Instrumentation and equipment for conduct of the test adequate to the test objective</p> <p>4. Suitable environmental conditions and adequate test methods</p> <p>5. Critical test sequence</p> <p>6. Acceptance criteria.</p>	<p>a similar manner to the original.</p> <p>(2.1.2.) The organization responsible for the design of the item to be tested establishes the test requirements and acceptance criteria. Test requirements and acceptance criteria are based upon specified requirements contained in applicable design or other pertinent documents. Test requirements include specific characteristics to be tested.</p> <p>(2.1.2.) The Company specifies specific test methods when they must be employed, uses written procedures or checklists, and documents the status of equipment both before and after testing.</p> <p>(2.1.2.1.) Prerequisites include the following, as applicable:</p> <ul style="list-style-type: none"> <li>– Appropriate test equipment.</li> <li>– Calibrated instrumentation in accordance with Chapter 12, “Control of Measuring and Test Equipment.”</li> <li>– Condition of test equipment and the item to be tested.</li> <li>– Provisions for data acquisition.</li> <li>– Suitable environmental conditions.</li> <li>– Trained personnel.</li> </ul> <p>(2.1.2.1.) Procedures ensure that prerequisite steps for equipment testing have been or will be performed. Such steps include:</p> <ul style="list-style-type: none"> <li>– Completion of necessary construction maintenance and modification activities.</li> <li>– Formal release for testing.</li> <li>– Measures to preserve equipment status.</li> <li>– Prior testing.</li> <li>– Safety precautions.</li> </ul> <p>(2.1.2.1.) A detailed prescribed physical inspection of</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>equipment components and facilities is performed to ensure readiness for operation. Typical inspection items include:</p> <ul style="list-style-type: none"> <li>– Calibration of instruments.</li> <li>– Cleanliness.</li> <li>– Lubrication.</li> <li>– Presence of safety devices.</li> <li>– Setting of limit switches.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Test results, including verification of above items, are documented and reviewed for acceptability by the qualified department representative.</p>	<p>(2.1.2.3.) Appropriate Company personnel evaluate test results to assure conformance with design and performance requirements. Inspection and test results are documented in a test report or data sheet. Each report identifies the following:</p> <ul style="list-style-type: none"> <li>– Acceptability of the test.</li> <li>– Actions taken to correct the deviations noted.</li> <li>– Any deviation of test results from acceptance criteria (nonconformance).</li> <li>– As-found condition.</li> <li>– As-left condition.</li> <li>– Completion date and other significant dates and times.</li> <li>– Data sheets completed during the tests.</li> <li>– Documents that provide acceptance criteria.</li> <li>– Identification of the conditions encountered which were not anticipated.</li> <li>– Identity of inspector or tester.</li> <li>– Item to which it applies.</li> <li>– Location where testing was performed or where test samples were taken.</li> <li>– Measuring and test equipment used.</li> <li>– Person evaluating test results.</li> </ul>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<ul style="list-style-type: none"> <li>– Procedures or instructions followed in performing the task.</li> <li>– Test procedures.</li> <li>– Test results.</li> </ul> <p>Discussion: The qualified department representative is equivalent in name (in the QATR) as “appropriate company personnel,” supported in Chapter 1, “Organization.”</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Nuclear Administrative Procedures Manual provides for the use of temporary changes, which are controlled in accordance with Technical Specifications. Detailed instructions for implementation of temporary changes are provided.</p> <p><i>(Note: The Nuclear Administrative Procedures Manual is also known as the NAP manual.)</i></p>	<p>(Chapter 1, Paragraph 2.3.) Review and approval of site procedures are performed in accordance with technical specification requirements as delineated in the Technical Review or Station Qualified Review (SQR) programs.</p> <p>(Chapter 5, Paragraph 2.3.1.5.) Temporary Changes. Temporary changes to procedures required by 2.3.1.1 (above) may be made provided:</p> <ul style="list-style-type: none"> <li>– The intent of the original procedure is not altered.</li> <li>– The change is approved by two members of the plant management staff knowledgeable in the areas affected by the procedures, at least one of whom holds a Senior Reactor Operator’s License on the unit affected.</li> <li>– The change is documented, reviewed, and approved in accordance with 2.3.1 (above) within 14 days of implementation.</li> </ul> <p>Discussion: The Exelon AD Platform Provides for the administrative control of temporary procedure changes through AD-AA-101, “Processing of Procedures and T&amp;RMs.” The controls used for this process were originally defined in station technical specifications and as approved, moved to the QATR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Conclusion: The QATR and existing procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS performs performance-based assessments of selected post modification tests to assure compliance with the test procedure. Test results are reviewed for the following:</p> <ul style="list-style-type: none"> <li>– Presentation of proper documentation.</li> <li>– Assurance that tests meets objectives.</li> <li>– Identification and reporting of unacceptable results and initiation of corrective measures.</li> </ul>	<p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization.</p> <p>This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions.</p> <p>(Appendix B, "Assessments/Audits") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP. Assessments shall include the following safety-related functions as applicable:</p> <ul style="list-style-type: none"> <li>a. The conformance of unit operation to provisions contained within the technical specifications and applicable license conditions. (24 Months).</li> <li>b. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems, components, or method of operation that affect nuclear safety. (24 Months).</li> <li>c. The performance of activities required by the Quality Assurance Program to meet the criteria of Appendix B of 10CFR50. (24 Months).</li> </ul> <p>Discussion: QATR Chapter 18 in its scope specifies that audits and assessments be conducted in accordance with written procedures. NOS procedures using audit template M1C-1 examines through a representative</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>sample size; that post modification tests are documented properly, test results conform to acceptance criteria, test failures are dispositioned, and corrective actions taken. Performance assessments are also conducted using assessment template XE-6 and WG-3 with similar focus.</p> <p>Conclusion: The QATR and existing procedures governed by the QATR adequately addresses this statement of the HCGS UFSAR.</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. AD-AA-101, "Processing of Procedures and T&RMs."
2. CC-AA-107, "Configuration Change Acceptance Testing Criteria."
3. CC-AA-107-1001, "Post Modification Acceptance Testing."
4. ER-AA-310 Series Procedures detailing the "Maintenance Rule."
5. Exelon QATR, Revision 76, Chapters 1, 2, 5, 11, 15, 18, and Appendix B.
6. Exelon Series Procedures CC-AA, ER-AA, ER-AB, ER-AP, ER-MA, and ER-MW, MA-AA, MA-MW, and NF-AB.
7. Hope Creek UFSAR Section 17.2.11.
8. NC.NA-AP.ZZ-0070, "In-Service Testing Program."
9. NC.NM-AP.ZZ-0007, "Records and Document Control."
10. NC.VP-PO.ZZ-0007, "Document Control and Records Management Program."
11. NO-AA-200-002, "Nuclear Oversight Audit Procedure"
12. NO-AA-200-002-1002, "Nuclear Oversight Audit Templates"
13. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure"
14. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook"
15. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates"
16. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance"
17. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
18. NQA-1-1994, "Supplement 11S-2, "Supplementary Requirements for Computer Program Testing."
19. NQA-1-1994, Basic Requirement 11, "Test Control."
20. NQA-1-1994, Supplement 11S-1, "Supplementary Requirements for Test Control."
21. OP-AA-108-110, "Evaluation of Special Tests or Evolutions."
22. RM-AA-101, "Records Management Program."
23. RM-AA-102, "Control of Documents."
24. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
25. SH.OP-AP.ZZ-0084, "Conduct of Infrequently Performed Tests or Evolutions."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

- 26. SH.PI-AP.ZZ-0012, "Modification Test Program."
- 27. SH.RA-AP.ZZ-0105, "In-Service Testing Program Management."
- 28. SH.SE-DG.ZZ-0014, "Maintenance Rule Scoping."
- 29. Site Technical Specifications Section 6.0, "Administrative."

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.11 are adequately addressed within the scope of the QATR and implementing procedures governed by the QATR.
- Administrative changes need to be made to the UFSAR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

**Reduction in Commitment?**

**Yes**

**No**

**X**

### Actions / Comments

- 1. Remove section 17.2.11 from the HCGS UFSAR when the QATR is approved for use.
- c. Action Complete

Re-Review Completed By: W. M. Eckman – 08/01/07

**Proposed By:**

Robert F. Rysner

**Date:**

4/6/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 12, 9, &amp; 14)</b>	17.2.12. – Control of Measuring & Test Equipment	<b>Chapter No. (Rev. 76)</b>	12 – Control of Measuring & Test Equipment
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Test equipment, instrumentation, and controls used to monitor and measure activities affecting quality and personnel safety are identified, controlled, and calibrated at specific intervals by cognizant PSEG Nuclear personnel.</p>		<p>(1.0.) Measures and responsibilities are established to assure tools, gauges, instruments, and other Measuring and Testing Equipment (M&amp;TE) used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within specified limits. Measures shall also be established for the control of permanently installed instrument and control devices.</p> <p>(2.1.) The stations are responsible for the control and maintenance of calibrated M&amp;TE for the station. The stations are also responsible for the control of station analytical chemistry instrumentation, radiochemistry instrumentation, and standard solutions.</p> <p>(2.6.) Certified M&amp;TE is required where measurements with specific accuracy/tolerance requirements are delineated:</p> <ul style="list-style-type: none"> <li>– Calibration of other M&amp;TE.</li> <li>– Environmental monitoring.</li> <li>– Safety-related and applicable ASME applications.</li> <li>– Technical Specification related applications (including balance of plant systems).</li> <li>– Verification of design parameters.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Written procedures for meeting these requirements include provisions for:</p> <ol style="list-style-type: none"> <li>1. Specifying calibration frequency</li> <li>2. Recording and maintaining calibration records</li> <li>3. Controlling and calibrating primary and secondary standards</li> <li>4. Determining methods of calibration</li> <li>5. Tracing use on safety-related items.</li> </ol>	<p>(Chapter 5, Paragraph 1.0.) Activities governed by the Company's QAP shall be performed as directed by documented instructions, procedures, and drawings appropriate for the activity. The requirements for the use of these procedures shall also be prescribed in writing. These instructions, procedures, and drawings shall include responsibilities and acceptance criteria as applicable or appropriate for the activity.</p> <p>(1.0.) Measures and responsibilities are established to assure tools, gauges, instruments, and other Measuring and Testing Equipment (M&amp;TE) used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within specified limits. Measures shall also be established for the control of permanently installed instrument and control devices.</p> <p>(2.5.) M&amp;TE is calibrated against and traceable to certified standards having valid relationships to nationally recognized standards. Where national standards do not exist, provisions are established to document the basis for calibration. Calibration intervals are established for all M&amp;TE and the Company program specifies how this interval is established.</p> <p><i>(Note: Also see NQA-1-1994, Supplement 12S-1, Section 5.0 "Records.")</i></p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>Measuring and test equipment (M&amp;TE) calibration procedures are prepared in accordance with the applicable supplier's manual requirements, unless specific exemption is approved by the cognizant station department head. M&amp;TE, which is so exempted, is identified by use of a label or tag on the item.</p>	<p>(2.2.) A control program specifies how M&amp;TE are stored, handled, and used. As a minimum the following items are addressed:</p> <ul style="list-style-type: none"> <li>– Administrative controls (including equipment marking and traceability to calibration records).</li> <li>– Certification requirements.</li> <li>– Damaged or suspect M&amp;TE.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>– Environmental restrictions.</li> <li>– Items not requiring certification.</li> <li>– M&amp;TE selection.</li> <li>– Out of tolerance resolution.</li> <li>– Personnel qualifications.</li> <li>– Repairs and maintenance.</li> <li>– Status and usage history.</li> </ul> <p>(2.6.) Certified M&amp;TE is not required when measurements do not require specific accuracy or when commercial devices (such as rulers, tape measures, levels) provide adequate accuracy. Electronic stopwatches are not required to be calibrated.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Prior use of measuring and test equipment found to be out of calibration is evaluated for possible effect on safety-related items. Measurements are repeated where necessary.</p>	<p>(2.7.) When M&amp;TE is found to be out-of-tolerance, an evaluation is made of its previous uses to determine corrective action. Suspect equipment is identified and segregated to prevent inadvertent use.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Calibration standards are calibrated by approved calibration laboratories and are traceable to the National Institute of Standards and Technology (NIST), or best industry standards where no NIST standards exist. Procedures will provide for documenting the basis of calibrations, which are not traceable to NIST.</p>	<p>(2.1.) Power Labs is responsible for the governance of M&amp;TE for Exelon plants. This includes the establishment of calibration practices, intervals, accuracy requirements, certification/de-certification, and equivalency decisions (except where accuracy is impactful non-conservatively), as well as the resolution of technical issues regarding M&amp;TE calibration.</p> <p>(2.5.) M&amp;TE is calibrated against and traceable to certified standards having valid relationships to nationally recognized standards. Where national standards do not exist, provisions are established to document the basis for calibration.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>To the extent permitted by the state-of-the-art, the accuracy of the primary standards used to perform this calibration are at least four times greater than the accuracy of the device being calibrated. The basis of acceptance is documented and authorized, with responsibility assigned to the cognizant department head.</p>	<p>(2.4.) Calibration of M&amp;TE should be against reference standards that have an accuracy of at least four times the required accuracy of M&amp;TE. Calibration of reference standards will be against hierarchical standards more accurate than the reference standards calibrated. When this is not possible, standards must have an accuracy that assures the M&amp;TE is within the required tolerance, and that the basis for acceptance is documented and authorized by responsible management.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Test equipment is marked or otherwise identified to indicate a unique identification number, the latest calibration date and the next required calibration date.</p>	<p>(2.3) Equipment shall be suitably marked to indicate calibration status. Where neither labeling nor coding is practical, procedures shall provide for monitoring of records to ensure control.</p> <p>(2.10.) M&amp;TE calibration records contain, as a minimum:</p> <ul style="list-style-type: none"> <li>- As found/as left condition.</li> <li>- Calibration data.</li> <li>- Calibration procedure used.</li> <li>- Calibration results.</li> <li>- Equipment location.</li> <li>- Established accuracy.</li> <li>- Individual performing calibration.</li> <li>- Last calibration date.</li> <li>- Next calibration date.</li> <li>- Out of tolerance notification.</li> <li>- Repairs (if any).</li> <li>- Serial number.</li> <li>- Standards used.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>Measuring and test equipment is identified by affixing a calibration label unless the size of the item makes this impractical.</p>	<p>(2.3) Equipment shall be suitably marked to indicate calibration status. Where neither labeling nor coding is practical, procedures shall provide for monitoring of records to ensure control.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Out of calibration identification is used for instruments and controls to indicate this status pending calibration, repair, or replacement.</p>	<p>(2.7.) When M&amp;TE is found to be out-of-tolerance, an evaluation is made of its previous uses to determine corrective action. Suspect equipment is identified and segregated to prevent inadvertent use.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Calibration frequency is based on the manufacturers recommendations. This frequency is adjusted when operating experience supports this action.</p>	<p>(2.5.) M&amp;TE is calibrated against and traceable to certified standards having valid relationships to nationally recognized standards. Where national standards do not exist, provisions are established to document the basis for calibration. Calibration intervals are established for all M&amp;TE and the Company program specifies how this interval is established.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Organizations responsible for implementing measuring and test equipment calibration controls include station, Maintenance, and Maplewood Testing Services.</p>	<p>(2.1.) Power Labs is responsible for the governance of M&amp;TE for Exelon plants. This includes the establishment of calibration practices, intervals, accuracy requirements, certification/de-certification, and equivalency decisions (except where accuracy is impactive non-conservatively), as well as the resolution of technical issues regarding M&amp;TE calibration.</p> <p>(2.1.) The engineering organizations are responsible for decisions regarding the acceptability of changes to M&amp;TE specifications where accuracies are less conservative than those currently established. The engineering organization performs M&amp;TE equivalency calculations for</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>these items to assure associated specifications are consistent with plant design, test procedures, and accuracy requirements (excluded are analytical chemistry and radiochemistry instruments).</p> <p>(2.1.) The stations are responsible for the control and maintenance of calibrated M&amp;TE for the station. The stations are also responsible for the control of station analytical chemistry instrumentation, radiochemistry instrumentation, and standard solutions.</p> <p><i>(Note: Also see NQA-1-1994, Supplement 12S-1, 2.0 "Selection.")</i></p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. ER-AA-310, "Maintenance Rule."
2. Exelon Power Labs Quality Assurance Manual (Rev. 17).
3. Exelon QATR, Revision 76, Chapters 5, 11, and 12.
4. Hope Creek UFSAR Section 17.2.12.
5. MA-AA-716-040, "Control of Portable Measurement and Test Equipment Program."
6. Maplewood Testing Services Quality Assurance Manual, Controlled Copy #20.
7. NC.MS-DG.ZZ-0022, "Measuring and Test Equipment Desk Guide."
8. NC.RS-TI.ZZ-0595, "Maintenance and Control of Test Equipment."
9. NQA-1-1994, "Control of Measuring and Test Equipment."
10. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
11. NQA-1-1994, "Supplementary Requirements for Control of Measuring and Test Equipment."
12. NUREG-0800; Standard Review Plan; Section 17, "Quality Assurance."
13. Regulatory Guide 1.33, "Quality Assurance Program Requirements."
14. RM-AA-101, "Management of Records."
15. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
16. Site Technical Specifications for Administrative Controls.

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<b>Analysis</b>				
<p>1. Maplewood Testing Services and Exelon Power Labs are both listed on the PSEG approved suppliers list. Exelon Power Labs is responsible for the governance of M&amp;TE for all Exelon Plants.</p> <p><u>Discussion:</u></p> <p>Maplewood Testing Services (MTS), a subsidiary of PSEG, currently performs M&amp;TE services for Salem/Hope Creek. Both MTS and Power Labs are currently listed on the PSEG ASL. A change may be needed to the QATR (Chapter 12) to be more generic with regards to this service.</p> <p>Note: The word "governance" may be the key. Since Power Labs maintains it's own QAP and ASL, they could maintain governance by having Maplewood as an approved supplier of laboratory services including calibration of M&amp;TE.</p> <p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>• All items in the HCGS UFSAR 17.2.12 are adequately addressed within the scope of the QATR and NQA-1-1994.</li> <li>• An administrative change needs to be made to the UFSAR and the QATR for proper transition (see below).</li> <li>• The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>
<p>1. QATR Chapter 12, Section 2.1 in the 1<sup>st</sup> paragraph states that "Power Labs" is responsible for the governance of M&amp;TE for Exelon Plants. By generically modifying the sentence to read, "The Company is responsible for the governance of M&amp;TE" would support this responsibility for <u>all</u> company owned facilities, not just Exelon Nuclear Power Plants.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

2. Remove section 17.2.12 from the HCGS UFSAR when the QATR is approved for use.
  - Action Complete

Re-Review Completed By: W. M. Eckman – 08/01/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/6/2006
---------------------	------------------	--------------	----------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 14)</b>	<b>17.2.13 - Handling, Storage, and Shipping</b>	<b>Chapter No. (Rev. 76)</b>	<b>13 - Handling, Storage, and Shipping</b>
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>The control of handling, storage, cleaning, and preservation of material and equipment covered by the QA program is specified, implemented and accomplished by suitably trained personnel in accordance with predetermined work and inspection instructions.</p>		<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.1.) The Company uses written procedures or instructions for cleaning, packaging, shipping, storage, preservation, and to specify detailed requirements for access to storage areas, housekeeping, and removal of items from storage. Procedures include provisions for inspection, examination, testing and documentation. These procedures specify special protective conditions necessary to prevent damage, deterioration or loss before and after receipt of materials, equipment, special nuclear material, and radioactive wastes.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Implementing procedures provide for the storage of chemicals, reagents (including control of shelf life), lubricants, and other consumable materials as required.</p>		<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.5.) Consumable materials such as chemicals, reagents, and lubricants maintained in storerooms and warehouses are controlled procedurally by an inventory control system, which includes provisions for identifying</p>	



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>storage requirements and shelf lives by commodity, when applicable. Disposal of commodities whose shelf life has expired is addressed and controlled by procedures.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Material and Logistics group is responsible for control of material in storage, including preservation and shipping controls.</p>	<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.2.) When required, the Company:</p> <ul style="list-style-type: none"> <li>– Provides special equipment and special protective environments.</li> <li>– Specifies special equipment (such as containers, shock absorbers and accelerometers).</li> <li>– Specifies special protective environments (such as inert gas atmosphere, specific moisture content levels and temperature levels).</li> <li>– Verifies the maintenance of special equipment and special protective environments.</li> </ul> <p>(2.6.) Periodic monitoring is performed to assure that storage areas are being maintained in accordance with applicable requirements. Access to storage areas shall be controlled and limited. Cleanliness and good housekeeping practices shall be enforced at all times in the storage areas.</p> <p>Fire protection measures commensurate with the type of storage area shall be provided and maintained.</p> <p>Discussion: The Material and Logistics Group are equivalent in name (in the QATR) as “appropriate company personnel,” or “The Company” and are generically supported in Chapter 1, “Organization.”</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The station departments and Maintenance are responsible for system cleanliness and handling of equipment during operational maintenance or modification.</p>	<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.6.) Periodic monitoring is performed to assure that storage areas are being maintained in accordance with applicable requirements. Access to storage areas shall be controlled and limited. Cleanliness and good housekeeping practices shall be enforced at all times in the storage areas.</p> <p>Discussion: The station departments and Maintenance responsibility has equivalent names in the QATR as "The Company," or "appropriate company personnel," whose responsibilities are supported in Chapter 1, "Organization" under "Site Organization."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Engineering is responsible for specifying equipment requirements.</p>	<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.1.) Procurement documents or the vendor's quality program specifies the establishment of controls, to assure through the use of shipping procedures to provide protection during loading and transit and inspections, that items are delivered in acceptable condition.</p> <p>Discussion: Engineering has equivalent names in the</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>QATR as "The Company," or "appropriate company personnel," whose responsibilities are supported in Chapter 1, "Organization" under "Corporate and Site Organizations."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Manufacturer's instructions and recommendations, design requirements, and applicable codes and standards are implemented, as appropriate. Compliance with specific handling, storage, or shipping requirements is required.</p>	<p>(2.1.) The Company uses written procedures or instructions for cleaning, packaging, shipping, storage, preservation, and to specify detailed requirements for access to storage areas, housekeeping, and removal of items from storage.</p> <p>(2.3.) The Company packages, ships, receives, stores, and handles items according to established manufacturers requirements or the Company's' prescribed level. When a package or assembly contains items of different levels, the Company classifies it to the highest level designated for any of the items contained.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Requirements for new components and spares, where applicable, are included in the procurement documents.</p>	<p>(1.0.) The Company establishes measures to control and specify special protective conditions in accordance with an item's design and procurement requirements, as necessary, to prevent damage or deterioration of materials, components, and systems during handling, packaging, preservation, storage, and shipping.</p> <p>(2.1.) Procurement documents or the vendor's quality program specifies the establishment of controls, to assure through the use of shipping procedures to provide protection during loading and transit and inspections, that items are delivered in acceptable condition.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Documents

1. CC-AA-11, "Nonconformances."
2. Exelon QATR, Revision 76, Chapters 7 and 13.
3. Hope Creek UFSAR Section 17.2.13.
4. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
5. NC.PM-DG.ZZ-0010, "SAP Warehouse Management Storage Location Data."
6. ND.PM-AP.ZZ-0300,"Storage and Handling of Material."
7. NO-AA-500, "Approved Supplier Qualification Activities."
8. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
9. NQA-1-1994, Basic Requirement 13, "Handling, Storage, and Shipping."
10. NQA-1-1994, Supplement 13S-1, "Supplementary Requirements for Handling, Storage, and Shipping."
11. RM-AA-101, "Management of Records."
12. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
13. Site Safety Manual
14. Site Technical Specifications Section 6.0,"Administrative."
15. SM-AA-101, "Certification of Receipt Inspectors."
16. SM-AA-102, "Warehouse Operations."
17. SM-AA-102-1001, "Warehouse Guidelines."
18. SM-AA-300, " Procurement Engineering Support Activities."
19. SM-AA-400, "Supply Procurement."
20. SM-AA-401, "Material Procurement."
21. SM-SH-102-1001, "Warehouse Operations."
22. SM-SH-102-1002, "Warehousing Guidelines."
23. SM-SH-404-1000, "Nuclear Procurement and Control of Materials and Services."

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.13 are adequately addressed within the scope of the QATR.
- Administrative changes need to be made to the UFSAR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

<b>Actions / Comments</b>			
<p>1. Remove UFSAR Section 17.2.13 when the QATR is approved for use.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> <p>Re-review completed By: W. M. Eckman – 08/01/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/6/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13)</b>	17.2.14 - Inspection, Test, and Operating Status	<b>Chapter No. (Rev. 76)</b>	<b>14 - Inspection, Test, and Operating Status</b>
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>PSEG Nuclear procedures are required to specify the periodic tests and inspections required for equipment covered by the QA program, and to include the necessary management controls to assure that such required tests and/or inspections are completed in accordance with specified requirements.</p>		<p>(1.0.) Measures shall be established and documented to identify inspection, test, and operating status of structures, systems, and components in the scope of this QAP. Such measures shall provide means for assuring that required inspections and tests are performed and that the acceptability of items with regard to inspections and tests performed is known throughout procurement, installation, and operation in order to preclude inadvertent bypassing or altering the sequence of such inspections and tests.</p> <p>Discussion: PSEG Nuclear is synonymous with "The Company."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Equipment awaiting repairs, under repair, or repaired, and received materials are marked to indicate the status of inspection and test requirements and/or acceptability for use.</p>		<p>(1.0.) Measures shall be established and documented to identify inspection, test, and operating status of structures, systems, and components in the scope of this QAP.</p> <p>(1.0.) Such measures shall provide means for assuring that required inspections and tests are performed and that the acceptability of items with regard to inspections and tests performed is known throughout procurement, installation, and operation in order to preclude inadvertent bypassing or altering the sequence of such inspections and tests.</p>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>(2.1.) The Company uses markings, tags, stamps, routing cards, labels, forms, inspection records, or other means to identify the operating status of plant equipment. This identification helps avoid inadvertent bypassing of the inspections and tests required prior to its use.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procedures provide for tagging valves and switches to prevent inadvertent operation. These procedures control the application and removal of tags and are designed to prevent operation of valves and/or switches that could result in personnel hazard or equipment damage. Valve and equipment status boards or logs are maintained to indicate status.</p>	<p>(2.1.1.) The Company uses procedures for control of equipment to maintain personnel and reactor safety and to avoid unauthorized operation of equipment. These procedures require control measures such as locking or tagging to secure and identify equipment in a controlled status. The procedures require independent verifications, where appropriate, to ensure that necessary measures, such as equipment tagging, have been done correctly.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p><b>Documents</b></p>	
<ol style="list-style-type: none"> <li>1. ER-AA-10, "Equipment Reliability Process Description."</li> <li>2. ER-AA-310, "Maintenance Rule."</li> <li>3. Exelon Power Labs QA Manual, Revision 17.</li> <li>4. Exelon QATR, Revision 76, Chapter 14.</li> <li>5. HC.OP-AP.ZZ-0103, "Tagging Request and Inquiry System (TRIS+)"</li> <li>6. Hope Creek UFSAR Section 17.2.14.</li> <li>7. HU-AA-101, "Human Performance Tools and Verification Practices."</li> <li>8. MA-AA-1000, "Conduct of Maintenance Manual."</li> <li>9. Maplewood Testing Services Quality Assurance Manual, Controlled Copy #20.</li> <li>10. NC.NA-AP.ZZ-0015, "Safety Tagging Program."</li> <li>11. NC.TQ-TC.ZZ-0313, Safety Tagging Training Program."</li> <li>12. ND.PM-AP.ZZ-0310, "Material Re-Tagging."</li> <li>13. ND.TQ-AP.ZZ-0012, "Safety Tagging Program."</li> <li>14. NO-AA-200-002, "Nuclear Oversight Audit Procedure."</li> <li>15. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."</li> <li>16. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."</li> <li>17. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

- |     |                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18. | NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."                                                                                                                                              |
| 19. | NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."                                                                                                                                      |
| 20. | NO-AA-21, "Nuclear Oversight Audit Process Description."                                                                                                                                                               |
| 21. | NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."                                                                                                                                        |
| 22. | NQA-1-1994, Basic Requirement 14, "Inspection, Test, and Operating Status."                                                                                                                                            |
| 23. | OP-AA-100, "Conduct of Operations."                                                                                                                                                                                    |
| 24. | OP-AA-109-101, "Clearance and Tagging."                                                                                                                                                                                |
| 25. | OP-MW-101-101, "Clearance and Tagging."                                                                                                                                                                                |
| 26. | RM-AA-101, "Management of Records."                                                                                                                                                                                    |
| 27. | Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants." |
| 28. | SAFETY MANUAL ADDENDUM 9, "Corporate Safety Tagging Rules."                                                                                                                                                            |
| 29. | SH.OP-AP.ZZ-0015, "Nuclear Training Center Safety Tagging Rules."                                                                                                                                                      |
| 30. | SH.OP-AP.ZZ-0015, Safety Tagging Operations."                                                                                                                                                                          |
| 31. | Site Technical Specifications Section 6.0,"Administrative."                                                                                                                                                            |
| 32. | TQ-AA-119-0202, "Clearance and Tagging Training Program."                                                                                                                                                              |
| 33. | TQ-MA-119-0202-1001, "Clearance and Tagging Training Program for Mid Atlantic Sites."                                                                                                                                  |
| 34. | TQ-MW-119-0202-1001, "Clearance and Tagging Training Program Requirements."                                                                                                                                            |

### Analysis

Conclusion:

- All items in the HCGS UFSAR 17.2.14 are adequately addressed within the scope of the QATR.
- Administrative changes need to be made to the UFSAR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

**Reduction in Commitment?**

**Yes**

**No**

**X**

### Actions / Comments

2. Remove Section 17.2.14 from the HCGS UFSAR when the QATR is approved for use.
- Action Complete



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

Re-review Completed By: W. M. Eckman – 08/02/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/4/2006
---------------------	------------------	--------------	----------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13)</b>	17.2.15 Non-Conforming Materials, Parts, or Components	<b>Chapter No. (Rev. 76)</b>	15 - Non-Conforming Materials, Parts, or Components
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Organizations involved in material receipt, installation, test, design modification and other operating activities are responsible for identifying, and documenting nonconformances.</p>		<p>(1.0) Controls shall provide for identification, evaluation, segregation when practical, disposition of nonconforming items, and for notification to affected organizations. Items that do not conform to specified requirements shall be controlled to prevent inadvertent installation or use.</p> <p>(2.1) Nonconforming items are processed in accordance with the corrective action program and / or documented procedures. The Company uses written procedures to identify and control items, services or activities that do not conform to requirements. These procedures address the:</p> <ul style="list-style-type: none"> <li>- Disposition of nonconforming items.</li> <li>- Documentation of identified nonconformances.</li> <li>- Identification of nonconforming items.</li> <li>- Notification of affected organizations.</li> <li>- Operability determination of the SSC with the identified nonconforming condition</li> <li>- Segregation of nonconforming items.</li> </ul> <p>Implementation of these procedures prevents the inadvertent use, operation, or unauthorized installation of nonconforming items.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>Nonconforming materials, where practical, are segregated to prevent installation or use until proper approvals are obtained. Materials, parts, or components that have failed in service are identified and, where practical, segregated</p>	<p>(2.3) When practical, the Company segregates nonconforming items by placing them in a clearly identified and designated hold area until properly dispositioned. When segregation is impractical or impossible due to physical conditions such as size, weight or access limitations, other precautions are employed to preclude inadvertent use of a nonconforming item.</p> <p>(2.2) The Company identifies nonconforming items by marking, tagging, or other methods, which do not adversely affect the end use of the item. The identification is legible and easily recognizable.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Procedures control the application and removal of tags.</p>	<p>(2.1) Nonconforming items are processed in accordance with the corrective action program and / or documented procedures. The Company uses written procedures to identify and control items, services or activities that do not conform to requirements. These procedures address the:</p> <ul style="list-style-type: none"> <li>- Disposition of nonconforming items.</li> <li>- Documentation of identified nonconformances.</li> <li>- Identification of nonconforming items.</li> <li>- Notification of affected organizations.</li> <li>- Operability determination of the SSC with the identified nonconforming condition</li> <li>- Segregation of nonconforming items.</li> </ul> <p>Implementation of these procedures prevents the inadvertent use, operation, or unauthorized installation of nonconforming items.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>Documentation of the nonconformance includes a description of the nonconformance, review by Shift Manager/Control Room Supervisor for Limiting Condition for Operation (LCO) applicability when appropriate and the disposition and inspection or retest requirements, as appropriate.</p>	<p>(Chapter 14, Paragraph 2.1.) In cases where documentary evidence is not available to confirm that an item has passed required inspections and tests, that item shall be considered nonconforming. An operability determination for the nonconforming item with timeliness commensurate with the potential safety significance of the issue is performed. The operability determination is focused on whether the non-conforming item is capable of performing or supporting its specified functions of prevention or mitigation as described in the current licensing basis and will result in the determination of continued plant operation. If operability is assured based on this prompt determination, plant operation can continue while an appropriate corrective action program is implemented to restore qualification of the non-conforming item.</p> <p>(Chapter 16, Paragraph 2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station. These items or occurrences are screened for reportability, operability, Part 21, etc.</p> <p>(2.4.5.) The Company re-examines repaired or reworked items using procedures and the original acceptance criteria unless the nonconforming item's disposition has established alternate acceptance criteria. Items that have been corrected are re-inspected or re-tested as required by the approved disposition.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The Action Request (Notification) Process, Corrective Action Program, and/or Maintenance Program are used to identify and disposition nonconformances, as appropriate to the condition.</p>	<p>(2.1) Nonconforming items are processed in accordance with the corrective action program and / or documented procedures. The Company uses written procedures to identify and control items, services or activities that do not conform to requirements. These procedures address the:</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<ul style="list-style-type: none"> <li>- Disposition of nonconforming items.</li> <li>- Documentation of identified nonconformances.</li> <li>- Identification of nonconforming items.</li> <li>- Notification of affected organizations.</li> <li>- Operability determination of the SSC with the identified nonconforming condition</li> <li>- Segregation of nonconforming items.</li> </ul> <p>Implementation of these procedures prevents the inadvertent use, operation, or unauthorized installation of nonconforming items.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The maintenance program will be used to disposition nonconforming materials, parts, or components, which are to be scrapped, or restored to design condition by replacement in kind or other standard maintenance practices.</p>	<p>(2.4.5.) The Company re-examines repaired or reworked items using procedures and the original acceptance criteria unless the nonconforming item's disposition has established alternate acceptance criteria. Items that have been corrected are re-inspected or re-tested as required by the approved disposition.</p> <p>(2.4.5.) The Company scraps, discards or transfers to training usage a nonconforming item that cannot be corrected or accepted "as - is." Nonconforming items that are being used for training must be permanently identified and marked to prevent inadvertent or inappropriate use of the item.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Retesting will be in accordance with normal post-maintenance testing, and post-maintenance operability retesting practices. These nonconformances will be dispositioned by line management.</p>	<p>(2.4.5.) The Company re-examines repaired or reworked items using procedures and the original acceptance criteria unless the nonconforming item's disposition has established alternate acceptance criteria. Items that have been corrected are re-inspected or re-tested as required by the approved disposition.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>QNOS will verify the satisfactory resolution of such nonconformances, on a selected basis, through its normal maintenance program assessment and inspection activities.</p> <p><i>(Note: QNOS is Nuclear Oversight)</i></p>	<p>(Chapter 18, Paragraph 1.0.) A documented comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness. Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p>(Appendix B, "Assessment Frequency") Assessments shall include the following safety-related functions as applicable:</p> <ul style="list-style-type: none"> <li>- The results of actions taken to correct deficiencies occurring in facility equipment, structures, components, of method of operation that affect nuclear safety – 24 months.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>The responsible Engineer dispositions nonconforming materials, parts, or components that are to be repaired or used as-is.</p>	<p>(2.4.2.) The Company has responsibility for resolution of nonconformances in accordance with written procedures. Where ASME Code requirements are involved, the Authorized Inspection Agency reviews and accepts or rejects the disposition and justification. Engineering provides technical justification and independent review of nonconformances dispositioned as repair or use-as-is.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.4.3.) Personnel having expertise in the pertinent discipline determine whether a nonconforming item may be accepted "as - is," may be repaired to an acceptable condition, or must be rejected. These personnel have adequate competence and knowledge necessary to make this evaluation and have access to pertinent background information.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Dispositions for "use-as-is" are required to be reviewed and approved by NOS prior to implementation.</p>	<p>Line organization review and approval of NCR's are not performed by NOS in accordance with the Exelon Safety Evaluation Report (SER) dated December 24, 2002 (QATR Rev. 70). This document incorporated 2 other SERs that were approved at an earlier date by the NRC. They are:</p> <ol style="list-style-type: none"> <li>1. Safety Evaluation, Operational Quality Assurance Program Description, Revision 29, Washington Public Power Supply System, Nuclear Project No. 2, dated December 21, 1998. The change was to revise prior commitment to clarify that Quality personnel review nonconformance on a sampling basis to assure that dispositions have been evaluated and approved in addition the organization responsible for the corrective action program reviews nonconformance reports to assure dispositions have been evaluated and approved.</li> <li>2. Safety Evaluation, Quality Assurance Program in Operations Policy Document, Revision 13, Nebraska Public Power District, Cooper Nuclear Station, dated July 20, 1998. The changes involved the removal and clarification of prior commitments regarding the reviews of procedures and certain other line-organization generated documents by the Quality Assurance Department (QAD) and instead the QAD will perform periodic oversight reviews.</li> </ol>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR does not address this statement of the HCGS UFSAR. NOS in-line review was eliminated in the QATR and the current Exelon SER (QATR R70) supports removal of NOS from this function. Implementing these elements of the QATR at HCGS is justified by SERs and meets 10CFR50.54(a)(3)(ii).</p>
<p>Repair of nonconforming material, parts, or components is inspected or retested or both in accordance with specified test and inspection requirements established by the responsible engineering representative, based on applicable requirements.</p>	<p>(2.4.5.) The Company re-examines repaired or reworked items using procedures and the original acceptance criteria unless the nonconforming item's disposition has established alternate acceptance criteria. Items that have been corrected are re-inspected or re-tested as required by the approved disposition.</p> <p>(2.4.5.) The area of inspection may be confined to the area of the nonconformance. When it has been determined that the corrected item is satisfactory, the status of the item is changed to "acceptable" and an appropriate entry is made in the documentation after acceptance is determined.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS Vendor Assessors or Material Compliance personnel shall verify the satisfactory completion of the disposition of these nonconformances.</p>	<p>(2.4.1.) Nonconforming characteristics shall be reviewed and recommended dispositions of nonconforming items shall be proposed and approved in accordance with documented procedures. Further processing, delivery, installation, or use of a nonconforming item shall be controlled pending an evaluation and an approved disposition by authorized personnel.</p> <p>(2.4.2.) The Company has responsibility for resolution of nonconformances in accordance with written procedures.</p> <p>(Chapter 16, Paragraph 2.4.) Personnel performing the evaluation function are responsible for considering the cause and the feasibility of corrective action to assure that the necessary quality of an item is not deteriorated.</p>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Where it is determined that the cause cannot be corrected immediately, the due date of corrective action will be determined during the review and evaluation. Evaluation may indicate the need for investigations to assure that corrective measures are considered complete and may also indicate that the nature of the deficient condition is minor and does not require corrective action.</p> <p>Line organization review and approval of NCR's are not performed by NOS in accordance with the Exelon Safety Evaluation Report (SER) dated December 24, 2002 (QATR Rev. 70). This document incorporated 2 other SERs that were approved at an earlier date by the NRC. They are:</p> <ol style="list-style-type: none"><li>1. Safety Evaluation, Operational Quality Assurance Program Description, Revision 29, Washington Public Power Supply System, Nuclear Project No. 2, dated December 21, 1998.</li></ol> <p>The change was to revise prior commitment to clarify that Quality personnel review nonconformance on a sampling basis to assure that dispositions have been evaluated and approved in addition the organization responsible for the corrective action program reviews nonconformance reports to assure dispositions have been evaluated and approved.</p> <ol style="list-style-type: none"><li>2. Safety Evaluation, Quality Assurance Program in Operations Policy Document, Revision 13, Nebraska Public Power District, Cooper Nuclear Station, dated July 20, 1998. The changes involved the removal and clarification of prior commitments regarding the reviews of procedures and certain other line-organization generated documents by the Quality Assurance Department (QAD) and instead the QAD will perform periodic oversight reviews.</li></ol>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR addresses this statement of the HCGS UFSAR. A difference is identified in commitment for HCGS and is justified by using SERs. This meets 10CFR50.54(a)(3)(ii).</p>
<p>NOS and other organizations in PSEG Nuclear review nonconformance reports for quality problems, including adverse quality trends, and initiate reports to appropriate levels of management, identifying significant quality problems with recommendations for appropriate action.</p>	<p>(Chapter 16, Paragraph 2.3.) The Company verifies completion of corrective actions for maintenance, repair, refueling, operation activities, completion of corrective action taken for assessment deficiencies (including programmatic), and performs assessments of site corrective action. The Company tracks and verifies completion of corrective action taken for independent assessment findings and approves the completion of corrective actions.</p> <p>(Chapter 16, Paragraph 2.3.) Trending and assessment results are evaluated to assure that corrective measures are implemented effectively and that actions to prevent recurrence are effective as appropriate. The Company also requires contractors and vendors to follow-up on corrective action commitments within their quality programs.</p> <p>The Company regularly reviews and analyzes records to:</p> <ul style="list-style-type: none"> <li>- Assure that the causes of a nonconformance and the corrective action have been clearly described.</li> <li>- Assure that authorized Company personnel have evaluated the overall effect resulting from the use of nonconforming items.</li> <li>- Determine whether corrective measures will preclude recurrence.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Documents

1. ANSI N18.7, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
2. ANSI/ANS 3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
3. CC-AA-102, "Design Input and Configuration Change Impact Screening"
4. CC-MW-101, "Engineering Change Request"
5. Exelon QATR, Revision 76, Chapter 15, 16, 18, and Appendix B.
6. Exelon Reportability Reference Manual
7. Hope Creek UFSAR Sections 17.2.15.
8. IT-AA-2001, "IT Response to Emergent Issue Process."
9. LS-AA-105, "Operability Determinations"
10. LS-AA-115, "Operating Experience Procedure"
11. LS-AA-120, "Issue Identification and Screening Process."
12. LS-AA-125, "Corrective Action (CAP) Procedure"
13. LS-AA-127, "Passport Action Tracking Management Procedure"
14. LS-AA-2002, "Significance Determination Process Evaluation"
15. LS-OC-125, "Corrective Action Program (CAP) Procedure"
16. NC.CA-TM.ZZ-0001, "Non-Conforming Material / Component Evaluation Template."
17. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
18. NC.DE-AP.ZZ-0044, Disposition of Material Non-Conformances."
19. NC.NA-AP.ZZ-0020, "Control of Non-Conforming Components and Structures."
20. NC.PM-AP.ZZ-0610, "Material Evaluation Non-Conformances."
21. NO-AA-1007, "Nuclear Oversight Station Status Reporting and Issues Tracking."
22. NO-AA-1008, "Nuclear Oversight Management Review Meeting."
23. NO-AA-1013, "Nuclear Oversight Trending and Analysis."
24. NO-AA-1022, "Nuclear Oversight Records Management."
25. NO-AA-1024, "Nuclear Oversight Documenting Objective Evidence."
26. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
27. NO-AA-200-002, "Nuclear Oversight Regulatory Audit Procedure"
28. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."
29. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
30. NO-AA-200-003, "Nuclear Oversight Regulatory Performance Assessment"
31. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
32. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
33. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
34. NO-AA-21, "Nuclear Oversight Audit Process Description."
35. NO-AA-23, "Nuclear Oversight Vendor Audit Group Process Description."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

36. NO-AA-30, "Independent Inspection Process Description."
37. NO-AA-300-001, "Inspection Planning and Execution of Quality Inspection Activities."
38. NO-AA-300-001-1001, "Nuclear Oversight Independent Inspection Plan."
39. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
40. NQA-1-1994, "Supplement 15S-1, "Supplementary Requirements for the Control of Non-Conforming Items."
41. NQA-1-1994, Basic Requirement 15, "Control of Non-Conforming Items."
42. OP-AA-106-101-1001, "Event Response Guidelines"
43. OP-AA-106-101-1006, "Operational and Technical Decision Making Process"
44. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)."
45. Safety Evaluation Report dated December 21, 1998, "Operational Quality Assurance Program Description, Revision 29, Washington Public Power Supply System, Nuclear Project No. 2."
46. Safety Evaluation Report dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
47. Safety Evaluation Report dated July 20, 1998, "Quality Assurance Program in Operations Policy Document, Revision 13, Nebraska Public Power District, Cooper Nuclear Station."
48. Site Technical Specifications Section 6.0, "Administrative."
49. SM-AA-102, "Warehouse Operations."
50. SM-AA-300, " Procurement Engineering Support Activities."
51. SM-AA-400, "Supply Procurement."
52. SM-AA-401, "Material Procurement."
53. WC-AA-106, "Work Screening and Processing"

### Analysis

Conclusion:

- Two differences in commitment are identified relative to in-line review functions NOS performs for dispositions of "use-as-is" and NOS Vendor Assessor review of the disposition of non-conformances. Three NRC Safety Evaluations can be used to justify removal from the HCGS USFAR:
  1. Operational Quality Assurance Program Description, Revision 29, Washington Public Power Supply System, Nuclear Project No. 2, dated December 21, 1998.
  2. Quality Assurance Program in Operations Policy Document, Revision 13, Nebraska Public Power District, Cooper Nuclear Station, dated July 20, 1998.
  3. Safety Evaluation Report dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
- The balance of items in HCGS UFSAR Section 17.2.15 is adequately addressed within the scope of the QATR.

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<ul style="list-style-type: none"> <li>– All remaining proposed changes, when made to the UFSAR, also meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> <li>– Administrative changes need to be made to the UFSAR for proper transition (see below).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>	<input type="checkbox"/>	<b>No</b>	<b>X</b>

<b>Actions / Comments</b>	
<ol style="list-style-type: none"> <li>1. Address the 2 differences in commitment relative to in-line reviews performed by NOS.               <ul style="list-style-type: none"> <li>• Action Complete. Reference NRC Approved SERs as noted above. Include in justification and 50.54.(A) evaluation</li> </ul> </li>   <li>2. Remove Section 17.2.15 from the HCGS UFSAR when the QATR is approved for use.               <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> </li> </ol> <p>Re-Review Completed By: W. M. Eckman – 08/02/07</p>	
<b>Proposed By:</b>	Robert F. Rysner
<b>Date:</b>	4/4/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13 &amp; 14)</b>	17.2.16 – Corrective Action	<b>Chapter No. (Rev. 76)</b>	16 – Corrective Action
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Organizations involved in activities covered by the QA program are required to implement corrective action for significant conditions adverse to quality (SCAQ) and conditions adverse to quality (CAQ) identified within their scope of activity. Such conditions are documented and controlled by issuance of an action request.</p>		<p>(2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station.</p> <p>(2.1.) The Company makes a thorough investigation of occurrences and identifies corrective action to prevent recurrence of an event, as appropriate. Events may include reactor trips, failed equipment, personnel errors, and procedural infractions. Measures are taken to assure that the cause of any significant condition adverse to quality is determined and takes corrective action to prevent recurrence.</p> <p>(2.2.) Measures are established to assure that conditions adverse to quality are identified and corrected. Examples of conditions adverse to quality are provided in procedures. Examples include failures, malfunctions, adverse trends, deficiencies (including programmatic), deviations, defective material, design errors, equipment, and nonconformance to specified requirements.</p> <p>(2.3.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.5.) The Company documents the identification of significant conditions adverse to quality, the cause of the condition, the corrective action taken, and reports these items to the appropriate levels of management, NSRB, and as applicable, PORC. If the identified issue is not an indication of a significant failure in any portion of the QAP, the Company does not require reporting to management.</p> <p>(2.5.) The Company tracks the completion of corrective actions for conditions adverse to quality and maintains records of their resolution. Parts or all of this system may be electronically monitored and electronic records may be used as the sole record of such a system.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS reviews selected action request responses for adequacy through assessment and inspection activities. Periodic summary and status reports of the overall Corrective Action Program are provided to management through either the performance indicators or the periodic NOS report.</p>	<p>(2.3.) The Company verifies completion of corrective actions for maintenance, repair, refueling, operation activities, completion of corrective action taken for assessment deficiencies (including programmatic), and performs assessments of site corrective action. The Company tracks and verifies completion of corrective action taken for independent assessment findings and approves the completion of corrective actions.</p> <p>(2.3.) Trending and assessment results are evaluated to assure that corrective measures are implemented effectively and that actions to prevent recurrence are effective as appropriate. The Company also requires contractors and vendors to follow-up on corrective action commitments within their quality programs.</p> <p>(2.5.) Reports are made immediately if prompt corrective action is required. Formal reports are filed with the appropriate regulatory agency, when required.</p> <p>(2.5.) Reports of investigations include a detailed description of the occurrence, the findings of the investigation, and the recommended corrective</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>measures. The Company notifies the rest of the nuclear industry of significant events with generic implications and its circumstances to help preclude a similar event occurring at another plant.</p> <p>(2.5.) The Company keeps records to identify incidents (e.g., major damage, personal injury, major schedule delays.), non-conforming items, unfavorable conditions, programmatic deficiencies identified in assessment reports, significant equipment failures, and malfunctions that occur during station operation.</p> <p>(Appendix B, "Assessment Frequency") Internal assessments shall be conducted on a performance driven frequency, not to exceed 24 months or at the frequencies indicated below, in accordance with the Company's QAP.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Engineering and Maintenance are responsible for equipment failure trending. Department Managers are responsible for identifying trends within their respective organizations.</p>	<p>(2.3.) The Company verifies completion of corrective actions for maintenance, repair, refueling, operation activities, completion of corrective action taken for assessment deficiencies (including programmatic), and performs assessments of site corrective action. The Company tracks and verifies completion of corrective action taken for independent assessment findings and approves the completion of corrective actions.</p> <p>(2.3.) Trending and assessment results are evaluated to assure that corrective measures are implemented effectively and that actions to prevent recurrence are effective as appropriate. The Company also requires contractors and vendors to follow-up on corrective action commitments within their quality programs.</p> <p>Discussion: Engineering and Maintenance is equivalent in name (in the QATR) as "The Company " or "appropriate company personnel, " as supported in Chapter 1, "Organization" under the Corporate and Site Organizations.</p>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Responses to SCAQ corrective action documents are required to include:</p> <ol style="list-style-type: none"> <li>1. Identification of cause of deficiency</li> <li>2. Action taken to correct deficiency</li> <li>3. Action taken or to be taken to prevent recurrence</li> <li>4. Responsibilities and due dates for corrective actions</li> </ol>	<p>(2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station. These items or occurrences are screened for reportability, operability, Part 21, etc.</p> <p>(2.1.) The Company makes a thorough investigation of occurrences and identifies corrective action to prevent recurrence of an event, as appropriate. Events may include reactor trips, failed equipment, personnel errors, and procedural infractions. Measures are taken to assure that the cause of any significant condition adverse to quality is determined and takes corrective action to prevent recurrence.</p> <p>(2.2.1.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p> <p>(2.4.) Personnel performing the evaluation function are responsible for considering the cause and the feasibility of corrective action to assure that the necessary quality of an item is not deteriorated. Where it is determined that the cause cannot be corrected immediately, the due date of corrective action will be determined during the review and evaluation.</p> <p>(2.4.) Evaluation may indicate the need for investigations to assure that corrective measures are considered complete and may also indicate that the nature of the deficient condition is minor and does not require corrective action. Qualified personnel are responsible for determining the root cause(s) of an event and developing recommendations to preclude recurrence. These</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>personnel report the results of their determination to appropriate station personnel and Company management.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Responses to CAQ corrective action documents are required to include:</p> <ol style="list-style-type: none"> <li>1. Identification of deficiency</li> <li>2. Action taken to correct deficiency</li> </ol>	<p>(2.2.) Measures are established to assure that conditions adverse to quality are identified and corrected. Examples of conditions adverse to quality are provided in procedures. Examples include failures, malfunctions, adverse trends, deficiencies (including programmatic), deviations, defective material, design errors, equipment, and nonconformance to specified requirements.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Line management is responsible for dispositioning action requests within their areas of responsibility.</p>	<p>(2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station. These items or occurrences are screened for reportability, operability, Part 21, etc. The Company makes a thorough investigation of occurrences and identifies corrective action to prevent recurrence of an event, as appropriate. Events may include reactor trips, failed equipment, personnel errors, and procedural infractions.</p> <p>(2.1.) Measures are taken to assure that the cause of any significant condition adverse to quality is determined and takes corrective action to prevent recurrence.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>For significant conditions adverse to quality, plant management is responsible for ensuring timely response.</p>	<p>(2.4.) Personnel performing the evaluation function are responsible for considering the cause and the feasibility of corrective action to assure that the necessary quality of an item is not deteriorated. Where it is determined that</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>the cause cannot be corrected immediately, the due date of corrective action will be determined during the review and evaluation. Evaluation may indicate the need for investigations to assure that corrective measures are considered complete and may also indicate that the nature of the deficient condition is minor and does not require corrective action. Qualified personnel are responsible for determining the root cause(s) of an event and developing recommendations to preclude recurrence. These personnel report the results of their determination to appropriate station personnel and Company management.</p> <p>Conclusion: the QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>NOS is involved in the review of selected SCAQs and provides oversight to assure timely follow-up and close out through assessment and inspection activities.</p>	<p>(Chapter 18, Paragraph 1.0.) A documented comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness.</p> <p>Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>Conclusion: The QATR adequately addresses this statement in the HCGS UFSAR.</p>
<p>Proper implementation of corrective action is verified through surveillance, inspection, assessment or audit, as appropriate.</p>	<p>(2.3.) The Company verifies completion of corrective actions for maintenance, repair, refueling, operation activities, completion of corrective action taken for assessment deficiencies (including programmatic), and performs assessments of site corrective action. The Company tracks and verifies completion of corrective action taken for independent assessment findings and approves the completion of corrective actions.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 10, Paragraph 2.4.) Inspections are performed using approved instructions, procedures, process sheets, travelers, or checklists and applicable drawings.</p> <p>(Chapter 18, Paragraph 1.0.) A documented, comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness. Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>Conclusion: The QATR adequately addresses this statement in the HCGS UFSAR.</p>
<p>The appropriate vice president or director is responsible for assuring that conditions adverse to quality are promptly identified and corrected for all activities involving station operation, maintenance, testing, refueling, and modification.</p>	<p>(2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station. These items or occurrences are screened for reportability, operability, Part 21, etc.</p> <p>(2.2.) Measures are established to assure that conditions adverse to quality are identified and corrected. Examples of conditions adverse to quality are provided in procedures.</p> <p>(Chapter 1, Paragraph 2.2.3.3.) The management position responsible for Nuclear Oversight (NOS) activities is independent of production and assures that an appropriate QAP is established, maintained, and effectively executed throughout the nuclear organization. This position provides overall direction for the implementation of the QAP and for the effective implementation of quality assurance functions that verify activities affecting safety-related functions.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 1, Paragraph 2.3.6.) The management position responsible for site NOS activities reports to the management position responsible for NOS through the NOS management position responsible for performance assessment. This position has the organizational freedom and authority to identify problems, has a reporting relationship with the senior management position responsible for overall plant nuclear safety, and ensures compliance with QAP and nuclear safety requirements.</p> <p>(Chapter 1, Paragraph 2.3.1.) The management position responsible for plant operations assures the safe, reliable, and efficient operation of the plant within the constraints of applicable regulatory requirements, operating license, and the QAP.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Administrative procedures that govern station activities covered by the QA program provide for the timely discovery and correction of nonconformances. This includes receipt of defective material, failure or malfunction of equipment, deficiencies or deviations of equipment from design performance, and deviations from procedures.</p>	<p>(2.2.1.1.) The Company uses procedures that include methods for the identification of conditions adverse to quality and for timely corrective action. The Company requires individual vendors and their contractors to include corrective action measures in their quality assurance programs. In cases of significant conditions adverse to quality that arise during the procurement process, the Company uses procedures to describe the method used to:</p> <ul style="list-style-type: none"> <li>- Identify and document deviations and non-conformances.</li> <li>- Implement and maintain required corrective action.</li> <li>- Report the conditions and corrective action to the appropriate levels of management.</li> <li>- Review and evaluate the conditions to determine the cause, extent and measures needed to correct and prevent recurrence.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(2.2.1.2.) The causes of malfunctions are determined, evaluated, and recorded, as appropriate. Experience with the malfunctioning equipment and similar components are reviewed and evaluated to determine if a replacement component of the same type can be expected to perform the function reliably.</p> <p>If evidence indicates that common components in safety-related systems have performed unsatisfactorily, corrective measures are planned prior to replacement or repair of all such components. Appropriate procedures are revised in a timely manner to prevent recurrence of equipment malfunction or abnormal operation.</p> <p>(2.2.1.3.) When a significant design change is necessary because of an incorrect design, the Company reviews and modifies the design process and verification procedures, as appropriate. In cases of significant or recurring deficiencies (or errors), the Company follows written procedures to correct the deficiency (or error), determine the cause and make changes in the design process and the QAP to prevent similar types of deficiencies (or errors) from recurring.</p> <p>Conclusion: The QATR adequately addresses this statement from the HCGS UFSAR.</p>
<p>In cases of significant conditions adverse to quality, the cause of the condition is determined, and measures are established to preclude recurrence.</p>	<p>(2.2.1.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p> <p>Conclusion: The QATR adequately addresses this statement from the HCGS UFSAR.</p>
<p>Such events, together with corrective action taken, are documented and reported as described in Section 17.2.15. Corrective action is initiated by the responsible department head.</p>	<p>(2.2.1.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>(Note: Section 17.2.15 refers to the HCGS UFSAR Section for “Nonconforming Materials, Parts, or Components.”)</p>	<p>(2.5.) The Company documents the identification of significant conditions adverse to quality, the cause of the condition, the corrective action taken, and reports these items to the appropriate levels of management, NSRB, and as applicable, PORC. If the identified issue is not an indication of a significant failure in any portion of the QAP, the Company does not require reporting to management.</p> <p>(2.5.) Reports are made immediately if prompt corrective action is required. Formal reports are filed with the appropriate regulatory agency, when required. Reports of investigations include a detailed description of the occurrence, the findings of the investigation, and the recommended corrective measures. The Company notifies the rest of the nuclear industry of significant events with generic implications and its circumstances to help preclude a similar event occurring at another plant.</p> <ul style="list-style-type: none"> <li>- (Chapter 15, Paragraph 2.1.) Nonconforming items are processed in accordance with the corrective action program and / or documented procedures. The Company uses written procedures to identify and control items, services or activities that do not conform to requirements.</li> </ul> <p>Conclusion: The QATR adequately addresses this statement from the HCGS UFSAR.</p>
<p>NOS closely monitors station conditions requiring corrective action.</p>	<p>(2.1.) The Company implements a Corrective Action Program to promptly identify and correct items or occurrences that are adverse to quality or might adversely affect the safe operation of a nuclear generating station. These items or occurrences are screened for reportability, operability, Part 21, etc. The Company makes a thorough investigation of occurrences and identifies corrective action to prevent recurrence of an event, as appropriate. Events may include reactor trips, failed equipment, personnel errors, and procedural</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>infractions. Measures are taken to assure that the cause of any significant condition adverse to quality is determined and takes corrective action to prevent recurrence.</p> <p>(Chapter 18, Paragraph 1.0.) A documented, comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness. Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>Conclusion: The QATR adequately addresses this statement in the HCGS UFSAR.</p>
<p>Repetitive deficiencies, procedure or process violations at the station that are not classified as operational incidents or reportable occurrences, or nonconformances under the QA program, are documented via the issuance of an action request.</p> <p>This request provides a formal administrative vehicle to alert management of conditions adverse to quality that require corrective action.</p>	<p>(2.2.1.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p> <p>(2.2.) Measures are established to assure that conditions adverse to quality are identified and corrected. Examples of conditions adverse to quality are provided in procedures. Examples include failures, malfunctions, adverse trends, deficiencies (including programmatic), deviations, defective material, design errors, equipment, and nonconformance to specified requirements.</p> <p>(2.3.) The Company verifies completion of corrective actions for maintenance, repair, refueling, operation activities, completion of corrective action taken for assessment deficiencies (including programmatic), and performs assessments of site corrective action. The Company tracks and verifies completion of corrective action taken for independent assessment findings</p>



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>and approves the completion of corrective actions.</p> <p>(2.3.) Trending and assessment results are evaluated to assure that corrective measures are implemented effectively and that actions to prevent recurrence are effective as appropriate. The Company also requires contractors and vendors to follow-up on corrective action commitments within their quality programs.</p> <p>(2.5.) The Company keeps records to identify incidents (e.g., major damage, personal injury, major schedule delays.), non-conforming items, unfavorable conditions, programmatic deficiencies identified in assessment reports, significant equipment failures, and malfunctions that occur during station operation.</p> <p>(2.5.) The Company tracks the completion of corrective actions for conditions adverse to quality and maintains records of their resolution. Parts or all of this system may be electronically monitored and electronic records may be used as the sole record of such a system.</p> <p>Conclusion: The QATR adequately addresses this statement in the HCGS UFSAR.</p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Documents**

1. ANSI N18.7, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
2. ANSI/ANS 3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."
3. CC-AA-102, "Design Input and Configuration Change Impact Screening"
4. CC-AA-11, "Non-Conformances."
5. CC-MW-101, "Engineering Change Request"
6. Exelon QATR, Revision 76, Chapters: 10, 15, 16, and 18.
7. Exelon Reportability Reference Manual
8. Hope Creek UFSAR Section 17.2.16.
9. IT-AA-2001, "IT Response to Emergent Issue Process."
10. IT-SH-9001, "Information Technology Response to Emergent Issues Process."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

11. LS-AA-105, "Operability Determinations"
12. LS-AA-115, "Operating Experience Procedure"
13. LS-AA-120, "Issue Identification and Screening Process."
14. LS-AA-125, "Corrective Action (CAP) Procedure"
15. LS-AA-127, "Passport Action Tracking Management Procedure"
16. LS-AA-2002, "Significance Determination Process Evaluation"
17. LS-OC-125, "Corrective Action Program (CAP) Procedure"
18. NC.CA-TM.ZZ-0001, "Nonconforming Material /Component Evaluation Template."
19. NC.LR-AP.ZZ-0030, "Commitment Management."
20. NC.LR-AP.ZZ-0054, "Operating Experience Program."
21. NC.LR-DG.ZZ-0003, "Commitment Change Process."
22. NO-AA-1007, "Nuclear Oversight Station Status Reporting and Issues Tracking."
23. NO-AA-1008, "Nuclear Oversight Management Review Meeting."
24. NO-AA-1013, "Nuclear Oversight Trending and Analysis."
25. NO-AA-1022, "Nuclear Oversight Records Management."
26. NO-AA-1024, "Nuclear Oversight Documenting Objective Evidence."
27. NO-AA-200-002, "Nuclear Oversight Audit Procedure."
28. NO-AA-200-002, "Nuclear Oversight Regulatory Audit Procedure"
29. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."
30. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."
31. NO-AA-200-003, "Nuclear Oversight Regulatory Performance Assessment"
32. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."
33. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."
34. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."
35. NO-AA-21, "Nuclear Oversight Audit Process Description."
36. NO-AA-23, "Nuclear Oversight Vendor Audit Group Process Description."
37. NO-AA-30, "Independent Inspection Process Description."
38. NO-AA-300-001, "Inspection Planning and Execution of Quality Inspection Activities."
39. NO-AA-300-001-1001, "Nuclear Oversight Independent Inspection Plan."
40. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
41. NQA-1-1994, Basic Requirement 16, "Corrective Action"
42. OP-AA-106-101-1001, "Event Response Guidelines"
43. OP-AA-106-101-1006, "Operational and Technical Decision Making Process"
44. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)."
45. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
46. SH.SA-AP.ZZ-0030, "Response/Commitment Tracking Program."
47. Site Technical Specifications Section 6.0, "Administrative."
48. WC-AA-106, "Work Screening and Processing"

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

Analysis				
<p>1. HCGS complies with ANSI N18.7-1976/ANS-3.2, as endorsed and modified by Regulatory Guide 1.33. The contents of the plant operating procedures will comply with the applicable requirements of Section 5.3 of ANSI/ANS-3.2-1982. See Section 17.2 for further discussion of quality assurance during plant operation.</p> <p><u>Discussion:</u></p> <p>No exceptions or clarifications were identified in the area of corrective action.</p> <p><u>Conclusion:</u></p> <ul style="list-style-type: none"> <li>- All items in the HCGS UFSAR 17.2.16 are adequately addressed within the scope of the QATR.</li> <li>- Administrative changes need to be made to the UFSAR and QATR for proper transition.</li> <li>- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) &amp; (ii).</li> </ul>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

Actions / Comments			
<p>1. Modify the QATR Appendix C.1.1. "Codes and Standards" entry for ANSI N18.7/ANS 3.2 (1976) to add Hope Creek Generating Station to those sites already listed.</p> <p>Note: Hope Creek is included in the QATR. Addition was only necessary if the merger was completed. The QATR as it now exists is only for PSEG Nuclear's Hope Creek and Salem Generating Stations.</p> <p>2. Remove HCGS UFSAR Section 17.2.16 when the QATR is approved for use.</p> <ul style="list-style-type: none"> <li>• Action Complete</li> </ul> <p>Re-Review Completed by: W. M. Eckman – 08/02/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	4/6/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13)</b>	17.2.17 – Quality Assurance Records	<b>Chapter No. (Rev. 76)</b>	17 – Quality Assurance Records
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Records necessary to demonstrate that activities important to quality have been performed in accordance with applicable requirements are identified and maintained in accordance with Regulatory Guide 1.88, as noted in Section 17.2.2.</p> <p><i>(Note: UFSAR Section 17.2.2 is the “Quality Assurance Program”.)</i></p> <p><i>(Note: There are exceptions to RG 1.88. listed in the HCGS UFSAR, see below)</i></p>		<p>The NRC withdrew Regulatory Guide 1.88 in favor of ASME NQA-1 (1983). See 56FR 36175, 7/31/91. (See SRP 17.1 &amp; 2.)</p> <p>This Regulatory Guide endorsed ANSI N45.2.9, which was replaced by NQA-1, 1983, 17S1 &amp; Appendix 17A-1 and is included in NQA-1, 1994.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Records shall be considered valid only when authenticated by authorized personnel.</p>		<p>(2.2) Records are considered valid and complete when dated and stamped, initialed, signed, or otherwise authenticated. Corrections, revisions, or supplements to completed records are reviewed and approved by an authorized individual in the originating organization. Such changes are dated and stamped, initialed, signed, or otherwise authenticated including the use of electronic approval and authorization.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>	
<p>Record types as a minimum, comply with applicable technical specification requirements and include operating logs, maintenance and modification procedures and related inspection results and reportable occurrences.</p>		<p>(2.6) Record retention periods are established to meet regulatory, UFSAR, and License requirements. The most stringent retention period is implemented when multiple requirements exist.</p> <p><i>(Note: Records are maintained in accordance with a “Lifetime” and “Nonpermanent” type classification. NQA-1-1994 Appendix 17A-1 contains a list of typical lifetime</i></p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>records containing information meeting the requirements of Supplement 17S-1, Paragraphs 2.7 and 2.7.1, Nonpermanent records are delineated in paragraphs 2.7 and 2.7.2.)</p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this statement of the HCGS UFSAR.</p>
<p>PSEG Nuclear is responsible for the permanent storage of station records. The retention period for records; permanent storage location; and methods of control, identification, and retrieval are specified by administrative procedure.</p>	<p>(1.0.) The Company establishes and implements a program, which defines requirements and responsibilities for identification, generation, collection, compilation, storage, maintenance, retention, and retrieval of records necessary to provide evidence of quality in design, fabrication, installation, inspection, testing, and operating activities.</p> <p>(2.1.) The records program provides for:</p> <ul style="list-style-type: none"> <li>– Administration.</li> <li>– Receipt and transmittal.</li> <li>– Storage and preservation (includes temporary and permanent records)</li> <li>– Safekeeping and classification.</li> <li>– Retention and disposition.</li> </ul> <p>(2.4.) Record storage facilities are established and maintained in a manner that minimizes the risk of damage or destruction. Interim storage provisions shall be established to properly maintain and protect records until they are permanently transferred to record storage facilities for retention. Records may be kept by suppliers and maintained on an available basis for a specified period of time. Storage and Preservation systems provide for:</p> <ul style="list-style-type: none"> <li>– Assignment of responsibilities.</li> <li>– Attachment in binders, folders, or envelopes for storage in steel file cabinets or on shelving in containers.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<ul style="list-style-type: none"> <li>– Control and accountability of records removed.</li> <li>– Damage from natural disasters such as winds, floods, and fires.</li> <li>– Following manufacturer recommendations for special recording media.</li> <li>– Protection from environmental conditions such as high and low temperatures and humidity.</li> <li>– Protection from infestation of insects, mold, or rodents etc.</li> <li>– Special processed records such as radiographs, photographs, negatives, microfilm, and magnetic media to prevent damage from excessive light, stacking, electromagnetic fields, temperature and humidity.</li> </ul> <p>(2.4.1.) Measures are established for temporary storage of records when required by an organization's procedures for activities such as; for processing, review, or use. These measures require that these records are stored in a 1-hour fire rated container and that a maximum allowable storage time limit is specified.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Individual station department heads are responsible for submitting applicable department records to the designated location for retention.</p>	<p>(2.2) Authority and responsibility for record control activities are delineated in procedures. Records are administered through a system, which includes an index of record type, retention period, and storage location. Distribution of records shall be controlled in accordance with written procedures.</p> <p>Measures are established for replacement, restoration, or substitution of lost or damaged records. Records are legible, accurate, complete, identifiable, and retrievable.</p> <p>(2.3.) A system for receipt control of records is established. Receipt control is required for records transferred between Company locations, vendors and the</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Company, and from Company department files to final storage locations. Systems are established to transfer records between Company locations and between vendors and the Company. Records transferred from Company department files to a final storage location are also under such systems.</p> <p>(2.3.) The system of receipt control of records for permanent or temporary storage includes inventory of transmitted records, receipt acknowledgment, and control of records during receipt.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Documents

1. Exelon QATR, Revision 76, Chapters: 17
2. GM11-ADP-05, "Records and Documents."
3. HCGS UFSAR Sections: 17.2.17.
4. NC.NM-AP.ZZ-0007, "Records and Document Control."
5. NC.PM-AP.ZZ-0011, "Control of Records."
6. NC.QN-AS.ZZ-0004, "Control of Files / Records."
7. ND.TQ-AP.ZZ-0006, "Capital Property Records."
8. NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications."
9. NQA-1-1994, Appendix 17A-1, "Nonmandatory Appendix on Quality Assurance Records."
10. NQA-1-1994, Basic Requirement 17, "Quality Assurance Records."
11. NQA-1-1994, Supplement 17S-1, "Supplementary Requirements for Quality Assurance Records."
12. PM-AP.ZZ-0011, "Control of Records."
13. RG 1.88, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records."
14. RM-AA-401, "Records Management."
15. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for Exelon/Amergen Plants."
16. Site Technical Specifications Section 6.0, "Administrative."

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### Analysis

1. UFSAR 1.8.1.88, Conformance to Regulatory Guide 1.88, Revision 2, October 1976: "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records." Although NRC Regulatory Guide 1.88 was withdrawn by the NRC on July 31, 1991, HCGS commitments, as stated below, are not affected by this withdrawal.

During the operations phase, HCGS complies with ANSI N45.2.9-1974, as modified and interpreted by Regulatory Guide 1.88 and NUREG-0800 Standard Review Plan), Revision 2, Section II.17.4; however, the following specific exceptions are identified for the Records Storage Room No. 145 in the NBU Administration Building:

1. Per NUREG-0800, Records Storage Room No. 145 was built to comply with Option (3) "a 2 hour rated fire resistant file room meeting NFPA 232..." Regulatory Guide 1.88 endorses NFPA 232-1975; however, during the file room construction, NFPA 232-1991 was utilized to provide an acceptable level of record protection,

*(Exception – Remove this entry. Refer to NQA-1-1994, Supplement 17S-1 (4.4.2.c). NFPA 232-1991 meets the requirements of NFPA232-1986 or NFPA 232AM-1986 as stated in NQA-1-1994.*

2. A cable tray which passes through the room is enclosed with a 3 hour rated symmetrical wrap system to assure its presence will not affect the room contents or fire protection features, and

*(Exception – Remove this entry. The 3-hour rated symmetrical wrap system meets NQA-1-1994 Supplement 17S-1 (4.4.1.i) for maintaining a 2-hour fire protection rating for penetrations.)*

3. The ceiling is pierced by several miscellaneous drainage lines and two ventilation ducts. A drip pan, with discharge outside the room, is provided for the miscellaneous drainage plumbing to minimize the potential for inadvertent wetting of records and fire dampers are installed in the ventilation ducts.

*(Exception – Remove this entry, NQA-1-1994 Supplement 17S-1 (4.4.1b) provided for floor and roof drainage control.)*

2. During the construction and startup phases compliance was subject to the changes listed below.

The architect/engineer indicates that the original HCGS project commitment, via the Bechtel nuclear quality assurance manual (NQAM), was to ANSI N45.2.9 (Draft 11, Revision 0, January 17, 1973) rather than to ANSI N45.2.9-1974. The NQAM was revised to reference the 1974 document, as modified and interpreted by the guide, subject to the following specific changes:



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

1. ANSI Section 2.1, Quality Assurance Record System - Add the following sentence at the end of this section: "The procedures shall include control of records required during completion of the work activity."

*(Exception - Remove this entry, NQA-1-1994 Supplement 17S-1 Section 2.2 established the generation of records in procedures and work activities.)*

2. ANSI Section 2.2.2, Nonpermanent Quality Assurance Records - Revise this section to read: "Nonpermanent records are those required to show evidence that an activity was performed in accordance with the applicable requirement, but need not be retained for the life of the item and do not meet the criteria listed in Section 2.2.1."

*(Exception – Remove this entry, NQA-1-1994 Supplement 17S-1 Section 2.7.2 established a methodology for non-permanent records.)*

3. ANSI Section 3.2.2, Index - Revise this section to read: "The quality assurance records shall be listed in an index. The index shall include, as a minimum, record retention times and the location of the records within the record system. The index system used by organizations for the retention of quality assurance records shall provide information which can be used to identify the equipment or material."

*(Exception – Remove this entry, NQA-1-1994 Supplement 17S-1 Section 2.4 addresses indexing and methodology.)*

4. ANSI Section 3.2.7, Retention of Records - Appendix A, referenced in this section, is revised to list only lifetime quality assurance records. This section is revised to read: "Lifetime quality assurance records are listed in Appendix A of this standard. It is recognized that the nomenclature of these records may vary. The organization responsible shall establish in writing the retention times of records not listed in Appendix A."

*(Exception – Remove this entry, lifetime QA Records are listed in NQA-1-1994 Appendix 17A-1 and QATR Chapter 17, Section 2.6. establishes record retention times.)*

5. ANSI Section 5.6, Facility - Revise this section to read: "Quality assurance records shall be stored in facilities constructed and maintained in a manner which minimizes the risk of damage or destruction from fire, flooding, or other natural disasters; from the dangers of extreme temperature and humidity; and from infestation by insects and rodents."

*(Exception - Remove this entry, lifetime QA Records are listed in NQA-1-1994 Appendix 17A-1 and QATR Chapter 17, Section 4.4 (a, b, & c) provides for minimizing the risk of damage.)*

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

6. ANSI Section 5.6, Facility - Revise this section to read: "Quality assurance records shall be stored in facilities constructed and maintained in a manner which minimizes the risk of damage or destruction from fire, flooding, or other natural disasters; from the dangers of extreme temperature and humidity; and from infestation by insects and rodents."

There are three satisfactory alternatives for providing record storage integrity:

- a. Provide dual storage facilities at separate remote locations that are not exposed to a simultaneous hazard
- b. Provide a single record storage facility. Where a single record storage facility is maintained, the following features are to be considered in its construction:
  1. Reinforced concrete, concrete block, masonry, or equal construction
  2. A floor and roof with drainage control. If a floor drain is provided, a check valve or its equal is included
  3. Doors and frames designed to comply with the requirements of a minimum 2-hour fire rating
  4. Sealant applied over walls as a moisture or condensation barrier
  5. Surface sealant on floor providing a hard wear surface to minimize concrete dusting
  6. Foundation sealant and provision for drainage
  7. Forced air circulation with filter system
  8. Adequate Fire Protection System
  9. No pipes other than those providing fire protection to the storage facility should be located within the facility.
- c. Provide a facility in accordance with NFPA No. 232-1975, Standard for the Protection of Records. When this NFPA Standard is used, quality assurance records are identified as Class 1.

*(Exception – Remove this entry, NQA-1-1994 Supplement 17S-1Section 4.4 "Storage Facilities" provides for the above stated attributes (6, 6a, 6b, & 6c))*

7. Section 5.7, Audits - Revise title of this section to read "Surveillance." Delete the word "audit" from the first sentence. In Paragraph 1, change the word "surveys" to "surveillance." In Paragraphs 2 and 3, change the word "audits" to "surveillance."

*(Exception – Delete, not required. The terms "audit" and "surveillance" are included in NQA-1-1994 in the "Introduction" under 4.)*

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

8. Section 6.2, Accessibility - Revise the last paragraph to read: "Quality assurance records maintained by a manufacturer at this facility or other location shall be accessible to the Buyer or Owner."

*(Exception - Remove, this is supported by NQA-1-1994 Supplement 17S-1 Section 6 "Disposition")*

9. Section 7.2, Accumulation and Transfer of Records - Delete the sentence beginning, "Examples of such records..."

*(Exception - Remove, this is supported by NQA-1-1994 Supplement 17S-1 (2.7, 2.8, 3.0 & 4.0))*

10. Section 7.3, Disposition of Nonpermanent Records - Revise this section to read: "Requirements for retention and disposition of nonpermanent records shall be for the convenience of Bechtel unless these requirements are specifically defined otherwise by the Owner."

*(Exception – Remove, this is supported by NQA-1-1994 Supplement 17S-1 (2.7.2))*

11. Appendix A of ANSI N45.2.9-1974 - Revise the Introduction and Appendix A as follows: *(Exception – See below)*

The following is a list of lifetime records. For definition of lifetime records, see Paragraph 2.2.1. It is recognized that the nomenclature of these records may vary. Records not identified on this list are nonpermanent. The definition of nonpermanent records is stated in Paragraph 7.3.

A.1. Design Records - Applicable Codes and Standards Used in Design, Design Drawings, Design Calculations and Record of Checks, Approved Design Change Requests, Design Deviations, Design Reports, Design Verification Data, Design Specifications and Amendments, Safety Analysis Report, Stress Reports for Code Items, Systems Descriptions, Systems Process and Instrumentation Diagrams, Technical Analysis, Evaluations, and Reports.

A.2. Procurement Records - Procurement Specification, Purchaser Order (Unpriced) Including Amendments

A.3. Manufacturing Records - Applicable Code Data Reports, As-Built Drawings and Records, Certificate of Compliance, Eddy-Current Examination Final Results, Electrical Control Verification Test Results, Ferrite Test Results, Heat Treatment Records, Liquid Penetrant Examination Final Results, Location of Weld Filler Material, Magnetic Particle Examination Final Results, Major Defect Repair Records, Material Properties Records, Nonconformance Reports, Performance Test Procedure and Results Records, Pipe and Fitting Location Report, Pressure Test Results, Radiographic Review Forms, Ultrasonic Examination Final Results, Welding Procedures

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

### A.4. Installation-Construction Records - A.4.1 Receiving and Storage Nonconformance Reports

A.4.2. Civil - Check-off Sheets for Tendon Installation, Concrete Cylinder Test Reports and Charts, Concrete Design Mix Reports, Concrete Placement Records, Inspection Reports for Channel Pressure Tests, Material Property Reports on Containment Liner and Accessories, Material Property Reports on Metal Containment Shell and Accessories, Material Property Reports on Reinforcing Steel, Material Property Reports on Reinforcing Steel Splice Sleeve Material, Material Property Reports on Steel Embedment in Concrete, Material Property Reports on Structural Steel and Bolting, Material Property Reports on Tendon Fabrication Material, Pile Drive Log, Pile Loading Test Reports, Procedure for Containment Vessel Pressure-proof Test and Leak, Rate Tests and Results, Reports for Periodic Tendon Inspection, Reports of High-strength Bolt Torque Testing, Soil Compaction Test Reports.

A.4.3. Welding - Ferrite Test Results, Heat Treatment Records, Liquid Penetrant Test Final Results, Magnetic Particle Test Final Results, Major Weld Repair Procedures and Results, Radiographic Test Final Results, Ultrasonic Test Final Results, Weld Location Diagrams, Weld Procedures, Welding Filler Metal Material Reports.

A.4.4. Mechanical - Cleaning Procedures and Results, Code Data Reports, Hydro-Test Results, Installed Lifting and Handling Equipment Procedures, Inspection, and Test Data, Lubrication Procedures, Material Properties Records, Pipe and Fitting Location Reports, Pipe Hanger and Restraint Data, Safety Valve Response Test Procedures, Transient or Operational Cycling Records for Plant Components That Have Been Designed to Operate Safely for a Limited Number of Transients or Operational Cycles.

A.4.5. Electrical and I&C - Cable Pulling Tension Data, Cable Separation Data, Cable Splicing Procedures, Cable Terminating Procedures, Certified Cable Test Reports, Relay Test Procedures and Results, Voltage Breakdown Test Results on Liquid Insulation.

A.4.6. General - "As-built" Drawings and Records, Final Inspection Reports and Releases, Nonconformance Reports, Specifications and Drawings.

A.5. Preoperational and Startup Test Records - Automatic Emergency Power Source Transfer Procedures and Results, Final Systems Adjustment Data, Hydrostatic Pressure Test Procedures and Results, Initial Heat up, Hot Functional, and Cool down Procedures and Results, Initial Plant Loading Data, Initial Reactor Criticality Test Procedures and Results, Instrument AC Systems and Inverters Test Procedures and Reports, Main and Auxiliary Power Transformer Test Procedures and Results, Offsite Power-source Energizing Procedures and Test Reports, Onsite Emergency Power Source Energizing Procedure and Test Reports, Plant Load Ramp Change Data, Plant Load Step Change Data, Power Transmission Substation Test Procedures and Results, Preoperational Test Procedures and Results, Primary and Secondary Auxiliary Power Test Procedures and Results, Reactor Protection System Tests and Results, Startup Logs, Startup Test Procedures and Results, Station Battery and

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

DC Power Distribution Test Procedures and Reports, Water Chemistry Reports

### A.6. Operation Phase Activity Records

A.6.1. Operation, Maintenance, and Testing - Records and Drawing Changes Reflecting Plant Design Modifications, Made to Systems and Equipment Described in the Final Safety, Analysis Report, New and Spent Fuel Inventory, Transfers of Fuel, and Assembly Histories, Plant Radiation and Contamination Survey Records, Offsite Environmental Monitoring Survey Records, Radiation Exposure Records of All Plant Personnel and Others Who, Enter Radiation Control Areas, Radioactivity Levels of Liquid and Gaseous Waste Released to Environment, Current Individual Plant Staff Member Qualifications, Experience, Training, and Retraining Records, Reactor Coolant System In-service Inspection Records, Minutes of Meetings of the Plant Nuclear Safety Committee and Company Nuclear Review Board.

*(Delete this appendix in favor of NQA-1-1994 Appendix 17A-1, which contain these and additional record types.*

Conclusion:

- All items within HCGS UFSAR 17.2.17 are adequately addressed within the scope of the Exelon QATR and NQA-1-1994. No reductions in commitments were identified.
- Administrative changes need to be made to the UFSAR and the QATR for proper transition (see below).
- The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

<b>Actions / Comments</b>	
1.	Modify the HCGS UFSAR Section 1.8.1.88 to recognize NQA-1-1994 in lieu of RG 1.88 and ANSI N45.2.9. <ul style="list-style-type: none"> <li>• Action Complete</li> </ul>
2.	Delete the exceptions wording form the HCGS UFSAR for those supported by NQA-1-1994. <ul style="list-style-type: none"> <li>• This action was completed with issuance of Rev. 0 of the QATR. After issuance it was identified that the three exceptions for the records vault were still applicable. A notification (20303130) was issued and the exceptions will be placed back into the UFSAR.</li> </ul>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

3. Delete UFSAR Section 17.2.17 when the QATR is approved for use.
- Action Complete

Re-Review Completed By: W. M. Eckman – 08/02/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	3/21/2006
---------------------	------------------	--------------	-----------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Section No. (Rev. 13)</b>	17.2.18 – Audits	<b>Chapter No. (Rev. 77)</b>	18 – Assessments / Audits
<b>Hope Creek UFSAR Text</b>		<b>QATR Supporting References</b>	
<p>Audits of PSEG Nuclear and supplier organizations that implement the QA program are performed by NOS to verify compliance with the applicable portions of the program, through personnel interview, observation of activities in process, and review of applicable documents and records as required.</p>		<p>(1.0.) A documented, comprehensive system consisting of regulatory audits and performance assessments of the Company and its vendors are conducted to verify QAP compliance, adequacy, and effectiveness. Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>(2.2.) Assessments, audits, or surveys of vendors and their sub-tier suppliers are performed to a pre-established schedule. Audits are performed on a triennial basis. Documented supplier performance monitoring is performed in accordance with approved procedures as an acceptable alternate to the performance of the annual evaluation of suppliers. The management position responsible for audits and programs or his designee, shall review and approve the assessment/audit/survey schedule and checklists, and sign reports. Schedules are reviewed semi-annually and revised accordingly to assure that suppliers are assessed, audited, or surveyed as required.</p> <p>(2.2.) Assessment program requirements are imposed on suppliers by appropriate contract or procurement documents. The Company's active participation in nuclear industry assessments provides an alternative means to fulfilling its responsibility for examining supplier activities.</p> <p>Discussion: PSEG Nuclear is similarly defined in the</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>QATR as "The Company."</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Performance based assessments are an integral part of the auditing program and should evaluate activities on the basis of their effect on the safe and reliable operation of the facility.</p>	<p>(2.1.1.) Planned and comprehensive performance assessment activities are conducted to assure that safety related functions are fully evaluated. Internal assessment activities are performed to a schedule that includes assessment areas and frequencies. The management position responsible for NOS, or designated staff member(s), approves them. Schedules are reviewed semi-annually and revised accordingly to assure that coverage is maintained current.</p> <p>(2.1.4.) Performance assessments are conducted to assess specific activities, processes, and records on the basis of their impact and importance relative to safety, reliability, and functionality with respect to risks and consequences. Assessments can be focused on areas most in need of improvement.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>An audit plan is developed to identify the audits to be performed and their frequency.</p>	<p>(2.1.2.) A documented plan or an agenda identifies an audit or assessment scope, requirements, audit and/or assessment personnel, activities to be evaluated, organizations to be notified, applicable documents, and schedule.</p> <p>(2.1.2.) Audit/Assessment plans, agendas, checklists, and procedures as applicable are prepared in advance under the direction of an Audit/Assessment Team Leader (ATL).</p> <p><i>(Note: QATR Appendix B "Audit/Assessment Frequency" identifies the audits/assessments to be performed and their frequency.)</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>



## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>A dominant factor in the audit plan development is performance in the subject area. The audit plans are revised so that weak or declining areas receive increased audit coverage and strong areas receive less, consistent with the audit frequency requirements of the Code of Federal Regulations and the UFSAR.</p>	<p>(2.1.4.) Performance assessments are conducted to assess specific activities, processes, and records on the basis of their impact and importance relative to safety, reliability, and functionality with respect to risks and consequences. Assessments can be focused on areas most in need of improvement.</p> <p>(2.1.4.) Audits and assessments are initiated early to assure effective quality assurance during design, procurement, manufacturing, construction, installation, inspection, testing, and operations.</p> <p>(2.1.4) Additional unscheduled audits and assessments may also be performed at various stages of activities, based on the nature and safety significance of the work being done; to verify continued adherence to and effectiveness of the quality systems.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Audits of the selected aspects of operational phase activities are performed with a frequency commensurate with safety significance and in a manner to assure that at least biennial (2 years) audits of safety related activities are performed. A list of operational phase activities subject to the audit program is provided in section 17.2.1.1.2.3 and in Table 17.2-1.</p> <p><i>(Note: UFSAR Section 17.2.1.1.2.3 contains the functions and responsibilities of the Nuclear Review Board (NRB) and is analyzed separately.)</i></p>	<p>(2.1.1.) The internal audit program is conducted on a performance driven frequency that is commensurate with the status and importance of the activity to be completed but does not exceed 24-months. Internal audit frequencies required by regulation that are different than the 24-month period are indicated within Appendix B, "Assessment Frequency." Assessment frequencies are determined based on a consideration of the risk and consequences with respect to the activities being assessed.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Audits are conducted by audit teams comprised of a certified lead auditor and certified auditors, and technical specialists (when deemed necessary).</p>	<p>(2.1.3.) The Assessment/Audit Team Leader shall organize and direct audits/assessments and ensure the team collectively has the required experience or training for the activities to be evaluated. Technical Specialists may supplement the team to provide additional</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>experience and competence.</p> <p>(2.1.3.) Experienced and qualified personnel perform assessments and audits and are familiar with written procedures, standards, and processes applicable to the area being evaluated. Assessment and audit personnel shall have sufficient authority and organizational freedom to make the assessment and audit process meaningful and effective and shall not have direct responsibilities in the areas to be assessed. They shall have access to the plant records necessary to fulfill their function.</p> <p><i>(Note: Lead Auditors and auditors are certified and qualified using the standards set forth in NQA-1-1994 Supplement 2S-1, "Supplementary Requirements for the Qualification of Inspection and Test Personnel," 2S-3, "Supplementary Requirements for the Qualification of QA Program Audit Personnel, " and Appendix 2A-3, "Nonmandatory Guidance on the Education and Experience of Lead Auditors.")</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Audits are conducted using pre-established written procedures and checklists templates.</p>	<p>(1.0.) Audits and assessments are conducted in accordance with written procedures and to the requirements of ASME NQA-1 to evaluate the assessed organization and to assure completion of required corrective actions, commitments, or improvements and determine effectiveness in meeting program objectives.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Areas of deficiency revealed by audits are reviewed with management and are corrected in a timely manner. Required corrective action is documented and verified.</p>	<p>(2.1.5.) Responsible management shall take the necessary actions to correct findings identified in the assessment/audit. They will identify the corrective action to be taken, actions that will prevent recurrence, and a schedule for implementing these actions. Responses to audit and assessment findings are reviewed for adequacy.</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>(Chapter 16, Paragraph 2.2.1.1.) The Company uses procedures that include methods for the identification of conditions adverse to quality and for timely corrective action.</p> <p>(Chapter 16, Paragraph 2.2.1.2.) Appropriate procedures are revised in a timely manner to prevent recurrence of equipment malfunction or abnormal operation.</p> <p>Discussion: NQA-1-1994 in Appendix 2A2 states in part that the company's quality assurance program (in its implementing procedure) specifies an orderly and timely sequence for the implementation of applicable requirements and standards. This may change as plants move through design, construction, operation, and decommissioning.</p> <p><i>(Note: The timeliness of corrective action is also assessed through an electronic tracking system (Pass Port, PIMS, SAP etc), audits/assessments/overviews, and acceptance of corrective actions by NOS.)</i></p> <p>Conclusion: The QATR and NQA-1-1994 adequately addresses this of the HCGS UFSAR.</p>
<p>Follow-up action, including re-audit of deficient areas, is performed.</p>	<p>(2.1.5.) Follow-up verification of the completion of scheduled corrective action commitments are performed by NOS to assure findings or adverse conditions are corrected in accordance with procedural requirements.</p> <p>Follow-up action of previous deficient areas or adverse conditions (including re-audit) is taken to verify that corrective action has been completed, is effective, implementation continues, and is properly documented, when indicated.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>The audit program conducted by NOS includes, but is not limited to, the following activities covered by the QA program:</p>	<p>QATR "Appendix B" delineates the regulatory required audits and associated frequencies. Each of the items defined in the HCGS UFSAR are included in at least one or multiple audits as defined in Appendix B.</p> <p>The Exelon Audit Program is conducted in accordance with pre-established program area templates (i.e.: Emergency Preparedness, Engineering, Fire Protection etc.). Cross-functional templates are established in all program areas to ensure activities such as indoctrination and training, maintenance and test equipment, and procedures etc., are adequately reviewed.</p> <p>The following are line-by-line examples of where the audit program items are captured in the Exelon QATR:</p>
<p>1. Operation, maintenance, and modification</p>	<p>Chapter 1, Organization," Chapter3, "Design Control," and Appendix B, "Assessment Frequency" (a, b, d, &amp; k).</p>
<p>2. Preparation, review, approval, and control of design, specifications, procurement and requisition documents, instructions, procedures, and drawings</p>	<p>Chapter 3, "Design Control," Chapter 4, "Procurement Document Control, " and Chapter 5, Instructions, Procedures, and Drawings, " and Appendix B, "Assessment Frequency" (a, b, d, &amp; k).</p>
<p>3. Independent Inspection programs</p>	<p>Chapter 10, "Inspection," and Appendix B, "Assessment Frequency" (a, b, d, &amp; k).</p>
<p>4. Indoctrination and training</p>	<p>Chapter 2, Section 2.5, "Indoctrination &amp; Training," and Appendix B, "Assessment Frequency" (b &amp; k).</p>
<p>5. Implementation of operating and test procedures</p>	<p>Chapter 14, "Inspection, Test, and Operating Status," and Appendix B, "Assessment Frequency" (k).</p>
<p>6. Calibration of measuring and test equipment</p>	<p>Chapter 12, "Control of Measuring and Test Equipment," and Appendix B, "Assessment Frequency" (a, d, &amp; k).</p>
<p>7. Fire protection</p>	<p>Appendix A, "Augmented Quality," Section 2.4, and Appendix B, "Assessment Frequency" (a, b, d, e, f, &amp; k).</p>
<p>8. Routine plant procedures *</p>	<p>Chapter 5, Instructions, Procedures, and Drawings, "and</p>

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<p>9. Other applicable activities delineated in Table 17.2-1.</p> <p><i>(Note: There is a separate review for Table 17.2.1.)</i></p> <p>(* - See below.)</p>	<p>Appendix B, "Assessment Frequency" (a &amp; k).</p> <p>Appendix B, "Assessment Frequency" (d) and Chapter 2 (2.4). The Company's total program for providing administrative controls and quality assurance is incorporated in many diverse documents. The Company's nuclear document hierarchy describes the implementation of the QAP.</p> <p>Approved implementing procedures and instructions are written to the extent necessary to implement the quality requirements of 10CFR50 Appendix B. Line, staff, administrative, and quality oversight organizations issue and control these implementing procedures. All activities affecting quality are described in sufficient detail to assure quality.</p> <p>Conclusion: The QATR adequately addresses these statements of the HCGS UFSAR.</p>
<p>The audit data is analyzed and a written report of the results of each audit is distributed to appropriate management representatives of the organization(s) audited, as well as other affected management personnel. Included in the report is a statement of QA program effectiveness.</p>	<p>(2.1.5.) An audit report includes the description of the audit scope, identification of the team and personnel contacted during audit activities, a summary of results (including a statement on effectiveness of the QAP elements), and a description of each finding. The ATL shall sign the audit report for which he or she is responsible.</p> <p>(2.1.5.) Audit and Assessment results are documented and distributed to the management position responsible for NOS, and to the appropriate managerial level of the organization having responsibility for the area or activity assessed. Findings or deficiencies requiring prompt corrective action are reported immediately to the management of the assessed organization.</p> <p>Discussion: NOS audit personnel at the completion of an audit/assessment, analyze their data (inherent to the process). This analysis concludes with a summary of results and a statement of effectiveness of QAP elements.</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	<p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>Nuclear Oversight is audited by independent auditors at least every two years to verify implementation of the corporate QA program. Reports of these audits are directed to appropriate PSE&amp;G management personnel.</p>	<p>(2.3.) A periodic assessment (not to exceed 24 months) of the status and adequacy of the QAP is performed by an independent organization to assure that assessments are being accomplished to program requirements. The management position responsible for NOS submits the results of this assessment to the President and CNO.</p> <p><i>(Note: If a site specific QATR Chapter is created, then the position of President and CNO may be named differently.)</i></p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<p>* - At least every two years, the Nuclear Oversight organization shall audit a representative sample of routine plant procedures (as defined in Section 13.5) that are used more frequently than every two years. The audit is to ensure the acceptability of the procedures and verify that the procedure review/assessment and revision program is being implemented effectively.</p> <p><i>(Note: Asterisk refers to routine plant procedures above. UFSAR Section 13.5 defines plant procedures with the following sub-areas; Administrative, Main Control Room, System Operating, General Plant, Emergencies &amp; Significant Events, Alarm Response, Chemistry, Emergency Plan, Radiation Protection, Instrument * Control, Maintenance, Material Control, Radwaste Management, Reactor Engineering, Records, Security, Surveillance, Training, and Fire Protection.)</i></p>	<p>(Appendix B) Assessment Frequency (24 Months unless noted): Randomly selected procedures to ensure that the programmatic control processes used to assure that procedures are technically and administratively correct prior to use are resulting in timely and accurate procedure revisions.</p> <p>Discussion: NO-AA-200-002-1002, "Nuclear Oversight Audit Templates" and NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates" are the detailed company procedures that ensure "a representative sample of routine plant procedures" are audited/assessed over a two-year period. Some areas such as Security and Emergency Preparedness are audited and assessed every 12-months.</p> <p>Conclusion: The QATR partially addresses these statements of the HCGS UFSAR. A difference is identified relative to the HCGS UFSAR for an "audit of a representative sample of routine plant procedures" versus the QATR statement for an assessment (audit) of "randomly selected procedures." This practice is justified</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

	by the Exelon QATR (R70) SER and 10CFR50.54(a)(3)(ii).
The root cause of significant deficiencies is to be determined and corrected.	<p>(2.2.1.) In cases of significant conditions adverse to quality the cause of the condition is determined and documented, resolution determined and documented, and corrective action taken and documented to preclude recurrence.</p> <p>Conclusion: The QATR adequately addresses this statement of the HCGS UFSAR.</p>
<b>Documents</b>	
<ol style="list-style-type: none"> <li>1. ANSI N18.7, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."</li> <li>2. ANSI/ANS 3.2, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."</li> <li>3. Exelon QATR, Revision 76, Chapters 1, 2, 3, 10, 12, 14, &amp; 18, and Appendices A, B, &amp; C.</li> <li>4. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18, and Table 17-2-1.</li> <li>5. LS-AA-125, "Corrective Action (CAP) Procedure."</li> <li>6. NO-AA-1013, "Nuclear Oversight Trending and Analysis."</li> <li>7. NO-AA-1022, "Nuclear Oversight Records Management."</li> <li>8. NO-AA-1024, "Nuclear Oversight Documenting Objective Evidence."</li> <li>9. NO-AA-200-002, "Nuclear Oversight Audit Procedure."</li> <li>10. NO-AA-200-002-1002; "Nuclear Oversight Audit Templates."</li> <li>11. NO-AA-200-003, "Nuclear Oversight Performance Assessment Procedure."</li> <li>12. NO-AA-200-003-1001, "Exelon Nuclear Performance Assessment Handbook."</li> <li>13. NO-AA-200-003-1002, "Nuclear Oversight Performance Assessment Templates."</li> <li>14. NO-AA-200-003-1003, "Nuclear Oversight Performance Assessment Schedule Guidance."</li> <li>15. NO-AA-21, "Nuclear Oversight Audit Process Description."</li> <li>16. NO-AA-23, "Nuclear Oversight Vendor Audit (NOVA) Process Description."</li> <li>17. NO-AA-500, "Approved Supplier Qualification Activities."</li> <li>18. NQA-1-1994, "Quality Assurance Program Requirements for Nuclear Facilities."</li> <li>19. NQA-1-1994, Basic Requirement 18, "Audits."</li> <li>20. NQA-1-1994, Supplement 18S-1, "Supplementary Requirements for Audits."</li> <li>21. RG 1.33, "Quality Assurance Program Requirements (Operation)."</li> <li>22. Safety Evaluation Report Dated December 24, 2002, "Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70, in accordance with 10CFR50.54(a) Requirements for</li> </ol>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Exelon/Amergen Plants.”</p> <p>23. Site Technical Specifications Section 6.0, “Administrative.”</p> <p>24. TQ-AA-112, “Nuclear Oversight Training, Qualification, and Certification.”</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Analysis</b>
-----------------

1. UFSAR 1.8.1.33, Conformance to Regulatory Guide 1.33, Revision 2 (February 1978): “Quality Assurance Program Requirements (Operation).” HCGS complies with ANSI N18.7-1976/ANS-3.2, as endorsed and modified by Regulatory Guide 1.33. The contents of the plant operating procedures will comply with the applicable requirements of Section 5.3 of ANSI/ANS-3.2-1982. See Section 17.2 for further discussion of quality assurance during plant operation.

Exception is taken to the audit frequencies listed within Position C.4. The provisions of the Quality Assurance Program described in Section 17.2.18 "Audits" governs the audit frequencies.

Discussion:

RG 1.33 is “Active” with Revision 2 (2/78) being the latest. This RG replaced RG 1.28 per SRP 17.2. Exelon plants are committed to the RG 1.33 as listed in QATR Appendix C. The audit frequencies are governed in the Exelon QATR and are defined in Appendix B, is more extensive, and includes those stated in the HCGS UFSAR (17.2.18).

Conclusions:

- A difference in commitment is identified relative to the HCGS UFSAR for an “audit of a representative sample of routine plant procedures” versus the QATR statement for an assessment (audit) of “randomly selected procedures.” This practice is justified by the Exelon QATR (R70) SER and 10CFR50.54(a)(3)(ii).
- The exception taken to the audit frequencies listed within Position C.4 is addressed in the QATR and can be eliminated from the HCGS UFSAR.
- Administrative changes need to be made to the UFSAR and QATR for proper transition (see below).
- All remaining proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i) & (ii).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

**Actions / Comments**

1. Retain RG/ANSI entry and remove the applicable exception wording from HCGS UFSAR Section 1.8.1.33 when the QATR is approved for use.
  - Action complete. See QATR Appendix C
  
2. Remove UFSAR Section 17.2.18 when the QATR is approved for use.
  - Action Complete

Re-Review Completed by: W. M. Eckman – 08/06/07

**Proposed By:**

Robert F. Rysner

**Date:**

3/21/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR Table No. (Rev. 14)</b>	17.2 -1 – Hope Creek Q Activities/Services	<b>QATR Chapter No. (Rev. 76)</b>	None
<b>UFSAR Text</b>		<b>Disposition</b>	
The listing below identifies those activities and services, to which the Operational QA program applies during operations:		Delete this text; the QATR applies during plant construction and operation.	
A. Safety-related activities delineated in Regulatory Guide 1.33, Appendix A (See Regulatory Guide for further guidance on these activities)		Lead in sentence not a requirement. Delete text as necessary.	
<p>1. The procedures that define safety-related processes and programs, and that provide for the control of nuclear operations, and that incorporate regulatory requirements and commitments, will be called administrative procedures. The following is a partial list of safety-related administrative processes:</p> <ul style="list-style-type: none"> <li>a) Security Program, (Regulatory Guide 1.17)</li> <li>b) Equipment Control, e.g., locking and tagging</li> <li>c) Shift and Relief Turnover</li> <li>d) Bypass of Safety Functions and Jumper Control</li> <li>e) Maintenance of Minimum Shift Complement and Call-In of Personnel</li> <li>f) Fire Protection Program (FPP) including Inspection by Fire Consultants</li> <li>g) Communication System.</li> <li>h) Station Operations Review Committee (SORC)</li> <li>i) Nuclear Review Board (NRB)</li> </ul>		<p>Procedures listed as (a) through (g) are stated within RG 1.33 Appendix A, Section 1.0 and are typical examples of what should be covered by written procedures (not all-inclusive). The commitment to RG 1.33 is stated in QATR Appendix C.1.2.</p> <p>For items (h) and (i), the Exelon process, under the nuclear document hierarchy, has implementing procedures that contain the detail needed to implement a procedure program, SORC (PORC), and NRB (NSRB). The QATR functional requirement for these activities is stated in Chapter 1 under “Corporate” and “Site” organizations.</p> <p>Moving the detail text to procedures is supported by 10CFR50.54(a)(3)(i), (ii), &amp; (v) and NRC SER dated December 24, 2002, for the “Approval of Proposed Revision 70 of the Quality Assurance Topical Report EGC-1A, Rev. 70.</p>	

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

	<p>Discussion: Duplicative language stated in Regulatory Guides does not need to be restated within a quality assurance program to which a licensee is committed.</p> <p>Conclusion: The QATR and procedures governed by the QATR adequately address these items with the HCGS UFSAR.</p>
<p>2. The general plant operating Procedures at Hope Creek will be called Integrated Operating Procedures (IOPs).</p>	<p>This text is stated within HCGS UFSAR Section 13.5.2.1.2. This sentence is duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v). (Ref: RG 1.33 Appendix A, 2.0.)</p>
<p>3. The procedures for startup, operation and shutdown of safety related BWR systems at Hope Creek will be called System Operating Procedures (SOPs). Safety related BWR systems for Hope Creek are designated as QA required in Table 3.2-1.</p>	<p>This text is stated within HCGS UFSAR Section 13.5.2.1.1 and supported by RG 1.33 in Section 1.8.1.33. Table 3.2-1 contains a listing of safety related systems for HCGS. Both sentences are duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v). (Ref: RG 1.33 Appendix A, 4.0.)</p>
<p>4. The procedures for off normal or alarm Conditions of safety related BWR systems at Hope Creek will be called alarm response procedures. Safety related BWR systems for Hope Creek are designated as QA required in Table 3.2-1.</p>	<p>This text is stated within HCGS UFSAR Section 13.5.2.1.4 and Table 13.5.2. This sentence is duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v). (Ref: RG 1.33 Appendix A, 5.0.)</p>
<p>5. The procedures for combating emergencies and other significant events, at HCGS will be broken down into two categories: Emergency Operating Procedures (EOPs) and Abnormal Operating Procedures (AOPs).</p>	<p>This text is stated within HCGS UFSAR Section 13.5.2.1.3. This sentence is duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v). (Ref: RG 1.33 Appendix A, 6.0.)</p>
<p>6. The procedures for the control of radioactivity will be broken down into several types to facilitate their use by the appropriate personnel. Structures, systems, and components that control the discharge of solid, liquid, or gaseous</p>	<p>This text is generally stated within HCGS UFSAR Section 13.5.3. 6A through 6g and (6i) are stated within RG 1.33 Appendix A, 7.0, subsections (e) through (h). The QATR in Appendix A (2.2.) provides for the transport of radioactive waste. The QAP</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>radioactive waste to the environment are designated as Quality Group R in Table 3.2-1.</p> <p>Refer to Section 13.5.3.7. The following is a representative list of procedures and systems related to the control of radioactivity:</p> <ul style="list-style-type: none"> <li>a) Liquid Radioactive Waste System</li> <li>b) Solid Waste System</li> <li>c) BWR Gaseous Effluent System</li> <li>d) Radiation Protection, including Occupational Radiation Exposure per Regulatory Guide 8.8.</li> <li>e) Area Radiation Monitoring System Operation</li> <li>f) Process Radiation Monitoring System Operation</li> <li>g) Meteorological Monitoring and Data Collection Program</li> <li>h) Packaging and Transport of Radioactive Material per 10CFR71</li> <li>i) Decontamination.</li> </ul>	<p>requires that procedures be established and implemented for these areas. Quality Group "R" is defined in Table 3.2-1 and is being added to a QATR site-specific appendix.</p> <p>The text is duplicated within regulatory documents that the licensee is committed. Redundant text can be eliminated per 10CFR50.54(a)(3)(v).</p>
<p>7. The procedures for performing Technical Specification required surveillances will be broken down into several types to facilitate their use by the appropriate personnel.</p>	<p>This text is stated within HCGS UFSAR Section 13.5.3. This sentence is duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v).</p>
<p>8. The procedures for performing maintenance on safety related BWR systems at Hope Creek will be called maintenance procedures. Safety related BWR systems for Hope Creek are designated as QA required in Table 3.2-1.</p>	<p>This text is stated within HCGS UFSAR Section 13.5.2 and 13.5.3 and supported by RG 1.33 in Section 1.8.1.33. Table 3.2-1 contains a listing of safety related systems for HCGS. Both sentences are duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v).</p>
<p>9. The procedures for chemical and radiochemical analysis, sample collection, maintenance of coolant quality, and maintaining concentrations of harmful agents within prescribed limits will be called chemistry procedures.</p>	<p>This text is stated within HCGS UFSAR Section 13.5.3.1. This sentence is duplicated within the HCGS UFSAR and can be eliminated per 10CFR50.54(a)(3)(v).</p>

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>B. Additional NRC requirements</p> <ol style="list-style-type: none"> <li>1. Technical Specification Administrative Controls             <ol style="list-style-type: none"> <li>(a) Reportable occurrences.</li> </ol> </li> <li>2. In-service Inspection Plan</li> <li>3. Reporting of Defects and Noncompliance.</li> <li>4. Modifications to Site Grading.</li> <li>5. Dry Cask Storage Program.</li> </ol>	<ol style="list-style-type: none"> <li>1. Station Technical Specifications are included in the QATR as part of the QAP in Appendix B, (a) &amp; (o). Reportable occurrences are included in QATR Chapter 16, Paragraph 2.1.</li> <li>2. The In-Service Inspection Plan is included in the QATR as part of the QAP in Chapter 10, Paragraph 2.5.</li> <li>3. The Reporting of Defects and Non-compliance is included in the QATR as part of the QAP in Chapter 2, Paragraph 2.1.</li> <li>4. Modification to Site Grading is not included in the QATR. Transfer this text to a site-specific appendix in the QATR.</li> <li>5. The Dry Cask Storage Program is included in the QATR as part of the QAP in Appendix A, Paragraph 2.8. An entry in the site-specific QATR needs to be made to reference the HCGS Dry Cask Storage System similar to the Peach Bottom APS entry.</li> </ol> <p>Conclusion: Elements 1 through 3 are addressed in the QATR. Elements 4 and 5 need to be added to the QATR.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Documents</b>
------------------

1. Exelon QATR, Revision 76 and Appendices.
2. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18, and Tables 3.2-1 and 17.2-1.
3. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)."
4. Regulatory Guide 1.17, "Protection of Nuclear Power Plants Against Industrial Sabotage."
5. Regulatory Guide 8.8, "Information Relevant to Ensuring that Occupational Radiation Exposures will be as low as Reasonably Achievable."

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>Analysis</b>					
1.	Administrative changes need to be made to the UFSAR for proper transition to a QATR (see below).				
2.	The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).				
<b>Reduction in Commitment?</b>		<b>Yes</b>	<input type="checkbox"/>	<b>No</b>	<input checked="" type="checkbox"/> <b>X</b>

<b>Actions / Comments</b>	
1.	Ensure RG 1.17 (1.a.) is appropriately referenced in QATR Appendix C.1.2. <ul style="list-style-type: none"> <li>• Action Complete.</li> </ul>
2.	Transfer the applicable elements of UFSAR Table 17.2-1 to a site-specific section of the QATR and modify the wording to that the original USFAR text is consistent with the QATR naming and paragraph conventions. <ul style="list-style-type: none"> <li>• Action Complete.</li> </ul>
3.	Examine the requirement for Site Grading in B.4 (Above). De-commit if necessary. <ul style="list-style-type: none"> <li>• A decision was made tor retain the commitment. See QATR Appendix E.</li> </ul>
Re-review Completed by: W. M. Eckman – 08/06/07	
<b>Proposed By:</b>	Robert F. Rysner
<b>Date:</b>	5/2/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR Table No. (Rev. 0)</b>	17.2-3 F-Designated Systems	<b>QATR Chapter No. (Rev. 76)</b>	None
<b>UFSAR Text</b>		<b>Disposition</b>	
<p>An "F"-designation system is incorporated on the following design document types as a minimum:</p> <p>a. Drawings</p> <ol style="list-style-type: none"> <li>1. P&amp;ID's for Fire Protection System (FPS)</li> <li>2. FPS safety-related area drawings</li> <li>3. Fire wall location drawings</li> <li>4. Structural steel fireproofing drawings</li> <li>5. Concrete unit masonry details</li> <li>6. Penetration seal details</li> <li>7. Door hardware schedules</li> <li>8. Lighting notes, symbols, and details</li> <li>9. Lighting and telephone plans</li> <li>10. FPS isometrics.</li> </ol>		<p>The Hope Creek F-Designated Systems appendix should be transferred to a site-specific appendix (G) in the QATR.</p>	
<p>b. Indices</p> <ol style="list-style-type: none"> <li>1. Pipe line index</li> <li>2. Equipment index</li> <li>3. Instrument index</li> <li>4. Valve index.</li> </ol>		<p>See Analysis Below.</p>	
<p>FPS-QA identification system incorporation on drawings and indices is provided in the detail of the document, as necessary, to define "F" items/boundaries. An "F" suffix is added to the drawing number of those drawings that identify application of the FPS-QA program.</p>		<p>See Analysis Below.</p>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<p>Specifications are as follows:</p> <ul style="list-style-type: none"> <li>– Deluge water spray and sprinkler system</li> <li>– Fire and smoke detection system</li> <li>– Carbon dioxide systems</li> <li>– Installation of carbon dioxide system</li> <li>– Portable extinguishers</li> <li>– Hose racks for wet standpipe system</li> <li>– Horizontal fire pumps</li> <li>– Fireproofing of structural steel</li> </ul>	<p>See Analysis Below.</p>
<p>FPS-QA identification system incorporation onto specifications consists of adding an "F" suffix to the specification number.</p>	<p>See Analysis Below.</p>
<p>Fire Protection Systems, including emergency lighting and communications, are further delineated in Table 3.2-1.</p>	<p>This sentence is not a requirement, delete as necessary.</p>
<p><b>Documents</b></p>	
<ol style="list-style-type: none"> <li>1. Exelon QATR, Revision 76 and Appendices.</li> <li>2. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18 and Table 17.2-3.</li> <li>3. Regulatory Guide 1.120, "Fire Protection Guidelines for Nuclear Power Plants."</li> </ol>	

<p><b>Analysis</b></p>	
<ol style="list-style-type: none"> <li>1. The area of Fire Protection is identified in UFSAR Table 3.2-1 and in Regulatory Guides that define and clarify its importance to the plant. The specific wording in QAP Table 17.2-3 is not included in the detail in UFSAR Table 3.2-1. It recommended that this appendix remain within the bounds of the QAP/QATR and that the wording be transferred to QATR Appendix "G."</li> </ol>	



**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

2. Administrative changes need to be made to the UFSAR proper transition (see below).
3. The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).

<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>
---------------------------------	------------	--	-----------	----------

<b>Actions / Comments</b>
---------------------------

1. Transfer the elements of UFSAR Table 17.2-3 to a site-specific section of the QATR and modify the wording to that the original USFAR text is consistent with the QATR naming and paragraph conventions.
  - Action Complete. See QATR Appendix E

Re-Review Completed by: W. M. Eckman – 08/06/07

<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/4/2006
---------------------	------------------	--------------	----------

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR Table No (Rev. 4)</b>	17.2-4 R-Designated Systems	<b>QATR Chapter No. (Rev. 76)</b>	None
<b>UFSAR Text</b>		<b>Disposition</b>	
<p>The letter "R" shall be used to identify items of the Radioactive Waste Management System which protect the health and safety of the public, and plant operating personnel from uncontrolled discharge of solid, liquid, or gaseous radioactive waste to the environment.</p>		<p>(Policy 1.0.) The Company will maintain and operate its nuclear plants in a manner that will ensure the health and safety of the public and our workers.</p> <p>(Chapter 14, Paragraph 1.0.) Measures shall be established and documented to identify inspection, test, and operating status of structures, systems, and components in the scope of this QAP.</p> <p>Delete from the HCGS UFSAR.</p>	
<p>The radwaste management systems classified as quality group R shall be designated by the use of R-flags on piping and instrumentation diagrams. Quality group R standards shall be those provided in Regulatory Guide 1.143.</p>		<p>Regulatory Guide 1.143 is stated in QATR Appendix C.1.2. Quality Group "R" is defined in UFSAR Table 3.2-1.</p> <p>(Chapter 14, Paragraph 2.1.) The Company uses markings, tags, stamps, routing cards, labels, forms, inspection records, or other means to identify the operating status of plant equipment.</p> <p>Delete from the HCGS UFSAR.</p>	
<p>Radwaste Management Systems are further delineated in Table 3.2-1.</p>		<p>This sentence is not a requirement, delete as necessary.</p>	

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

<b>Documents</b>
<ol style="list-style-type: none"> <li>1. Exelon QATR, Revision 76 and Appendices.</li> <li>2. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18 and Table 17.2-4.</li> <li>3. Regulatory Guide 1.143 Design Guidance for Radioactive Waste Management SSCs Installed in Light Water-Cooled Nuclear Power Plants.”</li> </ol>

<b>Analysis</b>				
<ol style="list-style-type: none"> <li>1. The Hope Creek R-Designated Systems Appendix should be deleted.</li> <li>2. Administrative changes need to be made to the UFSAR proper transition (see below).</li> <li>3. The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).</li> </ol>				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
<ol style="list-style-type: none"> <li>1. Transfer any remaining applicable elements of Table 17.2-4 to a site-specific section of the QATR and modify the wording so that the original USFAR text is consistent with the QATR naming and paragraph conventions.                 (Note: The text contained in this table could optionally be placed in a site-specific appendix (Appendix E) to maintain reference to Table 3.2-1 and consistency with the current HCGS QAP.)               <ul style="list-style-type: none"> <li>• Action Complete. See QATR Appendix E</li> </ul> </li> </ol> <p>Re-Review Completed By: W. M. Eckman – 08/06/07</p>			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/4/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR Table No (Rev. 4)</b>	17.2-4 R-Designated Systems	<b>QATR Chapter No. (Rev. 76)</b>	None
<b>UFSAR Text</b>		<b>Disposition</b>	
<p>The letter "R" shall be used to identify items of the Radioactive Waste Management System which protect the health and safety of the public, and plant operating personnel from uncontrolled discharge of solid, liquid, or gaseous radioactive waste to the environment.</p>		<p>(Policy 1.0.) The Company will maintain and operate its nuclear plants in a manner that will ensure the health and safety of the public and our workers.</p> <p>(Chapter 14, Paragraph 1.0.) Measures shall be established and documented to identify inspection, test, and operating status of structures, systems, and components in the scope of this QAP.</p> <p>Delete from the HCGS UFSAR.</p>	
<p>The radwaste management systems classified as quality group R shall be designated by the use of R-flags on piping and instrumentation diagrams. Quality group R standards shall be those provided in Regulatory Guide 1.143.</p>		<p>Regulatory Guide 1.143 is stated in QATR Appendix C.1.2. Quality Group "R" is defined in UFSAR Table 3.2-1.</p> <p>(Chapter 14, Paragraph 2.1.) The Company uses markings, tags, stamps, routing cards, labels, forms, inspection records, or other means to identify the operating status of plant equipment.</p> <p>Delete from the HCGS UFSAR.</p>	
<p>Radwaste Management Systems are further delineated in Table 3.2-1.</p>		<p>This sentence is not a requirement, delete as necessary.</p>	
<b>Documents</b>			
<ol style="list-style-type: none"> <li>1. Exelon QATR, Revision 76 and Appendices.</li> <li>2. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18 and Table 17.2-4.</li> </ol>			

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

3. Regulatory Guide 1.143 Design Guidance for Radioactive Waste Management SSCs Installed in Light Water-Cooled Nuclear Power Plants.”

### Analysis

1. The Hope Creek R-Designated Systems Appendix should be deleted.
2. Administrative changes need to be made to the UFSAR proper transition (see below).
3. The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).

**Reduction in Commitment?**

**Yes**

**No**

**X**

### Actions / Comments

1. Transfer any remaining applicable elements of Table 17.2-4 to a site-specific section of the QATR and modify the wording so that the original USFAR text is consistent with the QATR naming and paragraph conventions.

(Note: The text contained in this table could optionally be placed in a site-specific appendix (Appendix E) to maintain reference to Table 3.2-1 and consistency with the current HCGS QAP.)

- Action Complete. See QATR Appendix E

Re-Review Completed By: W. M. Eckman – 08/06/07

**Proposed By:**

Robert F. Rysner

**Date:**

5/4/2006

**Hope Creek UFSAR / Exelon QATR  
Line-By-Line Review**

<b>UFSAR Table No. (Rev. 15)</b>	17.3-1 Quality Classifications of the SSC of the Independent Spent Fuel Storage Installation.	<b>QATR Chapter No. (Rev. 76)</b>	None
<b>UFSAR Text</b>		<b>Disposition</b>	
The listing below references the documents that index the quality classifications of the Dry Cask Storage System (DCSS) and Independent Spent Fuel Storage Installation (ISFSI) SSC.		The Hope Creek Quality Classifications of the SSC of the Independent Spent Fuel Storage Installation appendix should be transferred to a site-specific appendix in the QATR. (Note: a few generic wording changes and paragraph references will need to be made.)	
<p>Important to Safety - Quality Category A, B or C:</p> <ol style="list-style-type: none"> <li>1. DCSS Final Safety Analysis Report (Certificate Holder's): <ol style="list-style-type: none"> <li>a. Table 2.2.6 of HI-STORM 100 FSAR (Docket 72-1014)</li> <li>b. Table 8.1.6 of HI-STORM 100 FSAR (Docket 72-1014)</li> </ol> </li> <li>2. PSEG Nuclear, Independent Spent Fuel Storage Installation (ISFSI) 10CFR72.212 Evaluation Report for the Artificial Island.</li> </ol>		<p>Note: PSEG Nuclear is referred to as "The Company" in the QATR.</p>	
<p>Not Important to Safety:</p> <ol style="list-style-type: none"> <li>1. DCSS Final Safety Analysis Report (Certificate Holder's): <ol style="list-style-type: none"> <li>a. Table 2.2.6 of HI-STORM 100 FSAR (Docket 72-1014)</li> <li>b. Table 8.1.6 of HI-STORM 100 FSAR (Docket 72-1014)</li> </ol> </li> </ol>			

## Hope Creek UFSAR / Exelon QATR Line-By-Line Review

2. PSEG Nuclear, Independent Spent Fuel Storage Installation (ISFSI) 10CFR72.212 Evaluation Report for the Artificial Island	Note: PSEG Nuclear is referred to as "The Company" in the QATR.
<b>Documents</b>	
1. Exelon QATR, Revision 76 and Appendices. 2. Hope Creek UFSAR Sections 1.8.1.33, 13.5, 17.2.18 and Table 17.2-4.	

<b>Analysis</b>				
1. It is recommended that this appendix remain within the bounds of the QAP/QATR. 2. Administrative changes need to be made to the UFSAR proper transition (see below). 3. The proposed changes, when made to the UFSAR, meets 10CFR50.54(a)(3)(i), (ii), and (v).				
<b>Reduction in Commitment?</b>	<b>Yes</b>		<b>No</b>	<b>X</b>

<b>Actions / Comments</b>			
1. Transfer the elements of UFSAR Table 17.3-1 to a site-specific section of the QATR and modify the wording to that the original USFAR text is consistent with the QATR naming and paragraph conventions. <ul style="list-style-type: none"> <li>• Action Complete. See QATR Appendix E.</li> </ul>			
Re-review Completed By: W. M. Eckman – 08/06/07			
<b>Proposed By:</b>	Robert F. Rysner	<b>Date:</b>	5/4/2006