April 26, 2007

Ronnie L. Gardner, Manager
Site Operations and Regulatory Affairs
AREVA NP
3315 Old Forrest Road
P.O. Box 10935
Lynchburg, VA 24506-0935

SUBJECT: SAFETY EVALUATION REPORT FOR ANP-10266NP, "AREVA NP, INC. QUALITY ASSURANCE PLAN (QAP) FOR DESIGN CERTIFICATION OF THE U.S. EPR" (TAC MD2402)

Dear Mr. Gardner:

By the letter dated September 22, 2006 (ML062700315), as supplemented by the letter dated February 28, 2007 (ML070170494), AREVA NP submitted for U.S. Nuclear Regulatory Commission (NRC) staff review Topical Report (TR) ANP-10266NP, Revision 0, "AREVA NP, Inc. Quality Assurance Plan for Design and Deployment of US Evolutionary Power Reactor Report for the U.S. EPR."

Based on its review, the NRC staff concludes that the quality assurance (QA) program described in TR ANP-10266NP, as revised by the referenced supplemental letter, meets the criteria of Appendix B to 10 CFR Part 50 and is, therefore, acceptable. The enclosed safety evaluation (SE) defines the basis for acceptance of the TR.

Our acceptance applies only to material provided in the subject TR. We do not intend to repeat our review of the acceptable material described in the TR. When the TR appears as a reference in regulatory applications, our review will ensure that the material presented applies to the specific application involved. Regulatory applications that deviate from this TR will be subject to further review in accordance with applicable review standards.

In accordance with the guidance provided on the NRC website, we request that AREVA publish the accepted version of this TR within three months of receipt of this letter. The accepted version shall incorporate this letter and the enclosed SE after the title page. Also, the accepted version must contain historical review information, including NRC requests for additional information and your responses. The accepted versions shall include an "-A" (designating accepted) following the TR identification symbol.

If future changes to the NRC's regulatory requirements affect the acceptability of this TR, AREVA will be expected to revise the TR appropriately, or justify its continued applicability for subsequent referencing.

If you have any questions, please contact me at gxt2@nrc.gov or (301) 415-3361.

Sincerely,

/RA/

Getachew Tesfaye, Project Manager
EPR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Project No. 733

Enclosure:
Final Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NEW REACTORS
TOPICAL REPORT NUMBER ANP-10266NP, REVISION 0
" AREVA NP INC. QUALITY ASSURANCE PLAN (QAP)
FOR DESIGN CERTIFICATION OF THE U.S. EPR"
PROJECT NO. 733

1.0 INTRODUCTION

By letter dated September 22, 2006 (Reference 5.1), as supplemented by letter dated February 28, 2007 (Reference 5.2), in response to the staff's request for additional information dated January 31, 2007 (Reference 5.3), AREVA Nuclear Inc., (AREVA) submitted topical report ANP-10266NP, Revision 0, "AREVA NP Inc., Quality Assurance Plan (QAP) for Design Certification of the U.S. EPR," in accordance with the guidance of Draft Standard Review Plan 17.5 (SRP 17.5), "Quality Assurance Program Description - Design Certification, Early Site Permit (ESP) and New License Applicants" (Reference 5.4). The AREVA QAP topical report covers the activities associated with the Design Certification (DC) of a U. S. Evolutionary Power Reactor (EPR). The quality assurance program described in the QAP topical report commits to the applicable guidance of the American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) standard NQA-1-1994, "Quality Assurance Requirements for Nuclear Applications" (Reference 5.5). AREVA used the guidance of SRP 17.5 to determine the appropriate regulatory guidance that applies to the proposed QAP.

2.0 REGULATORY EVALUATION

The Commission's regulatory requirements related to quality assurance programs are set forth in 10 CFR 52.47(a)(i), 10 CFR 50.34(a)(7), and Appendix B to 10 CFR Part 50 (Appendix B).

10 CFR 52.47(a)(i) requires, in part, that a DC application contain the technically relevant information required for applicants for an operating license by 10 CFR Part 50 and its appendices.

10 CFR 50.34(a)(7), in turn, requires that a description of the quality assurance program to be applied to the design, fabrication, construction, and testing of the structures, systems, and components of the facility be included as part of the minimum information in the preliminary safety analysis report. 10 CFR 50.34(a)(7) further requires that the description of the quality assurance program for a nuclear power plant include a discussion of how the applicable requirements of Appendix B will be satisfied.

Appendix B establishes quality assurance requirements for the design, fabrication, construction, and testing of structures, systems, and components (SSCs) of the facility. The pertinent requirements of Appendix B apply to all activities affecting the safety-related functions of those SSCs and include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, and modifying SSCs.

3.0 EVALUATION

In evaluating the adequacy of the format and level of detail of the QAP, the NRC staff followed Draft SRP Section 17.5 for guidance. Draft SRP Section 17.5 provides an outline of a QA program for design certification, ESP, combined operating license (COL), construction permit, and operating license applicants. Draft SRP Section 17.5 was developed using ASME NQA standard NQA-1-1994, as supplemented by additional regulatory guidance and industry guidance for nuclear operating facilities.

3.1 QAP Overview

3.1.1 Organization

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.A, for providing an organizational description that includes an organizational structure, functional responsibilities, levels of authority and interfaces for establishing, executing, and verifying QAP implementation. The AREVA QAP establishes independence between the organization performing checking functions and the organization responsible for performing the function. In addition, the AREVA QAP provides for management to be responsible to size the QA organization commensurate with the duties and responsibilities assigned. Responsibility and authority for planning, establishing, and implementing an effective overall QA program are clearly described and defined. AREVA does not delegate any of these activities and retains responsibility for the QA program.

The AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 1 and Supplement 1S-1, for establishing supplemental requirements for organization, without further clarifications or exceptions.

3.1.2 Quality Assurance Program

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.B, for establishing the necessary measures to implement a QA program to ensure that the design of nuclear power plants is in accordance with governing regulations and license requirements. The QA program comprises those planned and systematic actions necessary for establishing the safety classification of SSCs, and for determining the quality group classification, applicable quality standards, and the seismic design classification, applicable quality standards, and the seismic design classification of SSCs commensurate with their respective safety classification.

The AREVA QAP provides measures to assess the adequacy of the QAP and ensure its effective implementation, at least once each year. In addition, qualified auditors perform an independent audit of the QA/Quality Control organizations once each calendar year.

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraphs II.S and II.T, for describing the necessary measures to establish and maintain formal indoctrination and training programs for personnel performing, verifying, or maintaining activities within the scope of the QAP to assure that suitable proficiency is achieved and maintained. The AREVA QAP provides the minimum training requirements for all personnel responsible for the implementation of the QAP. Additional training requirements, consistent with the regulatory requirements, for individuals responsible for inspection, surveillance, and audit activities is described in the QAP.

The AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 2 and Supplements: 2S-1, for establishing supplemental requirements for qualification of inspection and test personnel; 2S-2, for establishing supplemental requirements for qualification of nondestructive examination personnel; 2S-3, for establishing supplemental requirements for qualification of quality assurance program audit personnel; and 2S-4, for establishing supplemental requirements for qualification for personnel indoctrination and training, without further clarifications or exceptions.

3.1.3 Design Control

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.C, for establishing the necessary measures to control the design, design verification, and analysis activities of safety-related items and services that are subject to the provisions of the QAP. The AREVA QAP design process includes provisions to control design inputs, processes, outputs, verification, independent review, analysis, verification testing, design changes, organizational interfaces within AREVA NP Inc. and with suppliers, records and QA reviews. These provisions ensure that the design inputs (such as design bases and the performance, regulatory, quality and quality verification requirements) are correctly translated into design outputs (such as analyses, specifications, drawings, procedures, and instructions). In addition, the AREVA QAP provides for design documents to be reviewed by individuals knowledgeable in QA to ensure that the documents contain the necessary QA requirements.

The AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 3 and Supplements: 3S-1, for establishing the program for design control and verification; 11S-2, for establishing supplemental requirements for computer program testing; and Subpart 2.7 for the standards for computer software quality assurance controls, without further clarifications or exceptions.

3.1.4 Procurement Document Control

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.D, for establishing the necessary administrative controls and processes to ensure that applicable regulatory, technical, and QA program requirements are included or referenced in procurement documents. Applicable technical, regulatory, administrative, quality and reporting requirements (such as specifications, codes, standards, tests, inspections, special processes, and 10 CFR Part 21) are invoked for procurement of items and services. The AREVA QAP scope of procurement is limited to engineering and design and testing services as well as the procurement of safety-related software. No equipment or components are being procured as part of the DC Project.

The AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 4 and Supplement 4S-1, for establishing supplemental requirements for procurement document control, with the following clarifications and exceptions:

- As an alternative to NQA-1-1994, Supplement 4S-1, Section 2.3, for the requirement that procurement documents must require suppliers to have a documented QA program that implements NQA-1-1994, Part I, the QAP requires that suppliers have a documented QA program that is determined to meet Appendix B and the AREVA QAP, as applicable to the circumstances of the

procurement. Appendix B, Criterion IV, "Procurement Document Control," requires suppliers to have a QA program consistent with Appendix B. This alternative is consistent with Draft SRP Section 17.5, paragraph II.D.2.d. and, therefore, is acceptable.

- The QAP provides for procurement documents to allow the supplier to work under the AREVA QAP, including implementing procedures, in lieu of the supplier having its own QA program. Criterion IV of Appendix B requires suppliers to have a QA program consistent with Appendix B. This alternative is consistent with Draft SRP Section 17.5, paragraph II.D.2.d. and, therefore, is acceptable.

3.1.5 Instructions, Procedures, and Drawings

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.E, for establishing the necessary measures and governing procedures to ensure that activities affecting quality are prescribed and performed in accordance with documented instructions, procedures, and drawings.

The AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 5 for establishing procedural controls without further clarifications or exceptions.

3.1.6 Document Control

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.F, for establishing the necessary measures and governing procedures to control the preparation, review, approval, issuance, and changes of documents that specify quality requirements or prescribe how activities affecting quality, including organizational interfaces, are controlled. Measures are provided to assure that documents, including revisions or changes, are reviewed and approved by the same organization that performed the original review and approval, unless other organizations are specifically designated. A list of all controlled documents identifying the current approved revision, or date, is maintained so that personnel can readily determine the appropriate document for use.

In establishing provisions for document control, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 6 and Supplement 6S-1, for establishing supplemental requirements for document control, without further clarifications or exceptions.

3.1.7 Control of Purchased Material, Equipment, and Services

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.G, for establishing the necessary measures and governing procedures to control the procurement of items and services to ensure conformance with specified requirements. The program provides measures for evaluating prospective suppliers and selecting only qualified suppliers. In addition, the program provides for auditing and evaluating suppliers to ensure that qualified suppliers continue to provide acceptable products and services. The AREVA QAP scope of procurement is limited to engineering and design and testing services as well as the

procurement of safety-related software. No equipment or components are being procured as part of the DC Project.

The program provides for acceptance actions, such as source verification, receipt inspection, post-installation tests, and review of documentation, such as certificates of conformance, to ensure that the procurement, inspection and test requirements have been satisfied before relying on the item to perform its intended safety function. Dedication of commercial-grade items and/or services for safety-related applications may be procured from suppliers given that an evaluation of the suitability of the item or service for nuclear applications is performed by the AREVA technical and quality assurance organizations. The critical characteristics of the item or service are determined and documented as part of this evaluation, and special methods shall be established to provide assurance that the item or service specified is the item or service received. If needed, these special quality verification methods may include inspections, tests, commercial grade surveys, or evaluations of the supplier.

In establishing procurement verification control, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 7 and Supplement 7S-1, for establishing supplemental requirements for control of purchased items and services, with the following clarifications and exceptions:

- The AREVA QAP contains provisions consistent with regulatory guidance provided in Draft SRP Section 17.5, paragraph II.L.8, for procurement of commercial-grade calibration services for safety related applications. The AREVA QAP does not require supplier audits when Authorized Nuclear Inspection Agencies, National Institute of Standards and Technology, or other State and Federal agencies supply items or services, and does not require procurement source evaluation and selection measures provided each of the following conditions are met:
    - Purchase documents impose additional technical and administrative requirements to satisfy AREVA QAP and technical requirements.
    - Purchase documents require reporting as-found calibration data when calibrated items are found to be out-of-tolerance.
    - Calibration laboratory holds a domestic accreditation by the National Voluntary Laboratory Accreditation Program (NVLAP) or by the American Association for Laboratory Accreditation (A2LA) as recognized by NVLAP through the International Laboratory Accreditation Cooperation Mutual Recognition Arrangement.
    - The accreditation is based on ANS/ISO/IEC 17025.
    - The published scope of the accreditation for the calibration laboratory covers the measurement parameters, ranges, and uncertainties.
    - Purchase documents require identification of the laboratory equipment/standards used.

This alternative is generally consistent with Draft SRP Section 17.5, paragraph II.L.8 with the following exceptions. Draft SRP 17.5 paragraph II.L.8, additionally requires the following conditions be met:

- The alternative method is limited to domestic calibration service suppliers.
- The alternative method is applicable to sub-suppliers of calibration service suppliers, provided the above conditions are met.

AREVA addresses these additional items in Section 12.0, "Control of Measuring and Test Equipment," of the AREVA QAP, and, therefore, on the basis of requiring these additional conditions be met, this alternative is acceptable.

3.1.8 Identification and Control of Materials, Parts, and Components

The AREVA QAP scope is limited to procurement activities associated with engineering and design and testing services as well as the procurement of safety-related software. No equipment or components are being procured as part of the DC Project. Therefore, this element is not applicable to the DC Project and has not been reviewed and approved by the staff.

3.1.9 Control of Special Processes

The AREVA QAP scope is limited to quality activities associated with the DC of the U.S. EPR, and does not include fabrication, erection, or installation or use. No equipment or components are being procured as part of the DC Project. Therefore, this element is not applicable to the DC Project and has not been reviewed or approved by the staff.

3.1.10 Inspection

The AREVA QAP scope is limited to quality activities associated with the DC of the U.S. EPR, and does not include fabrication, erection, or installation or use. No equipment or components are being procured as part of the DC Project. Therefore, this element is not applicable to the DC Project and has not been reviewed or approved by the staff.

3.1.11 Test Control

The scope of the DC Project does not include fabrication, erection, installation or use. Testing and test control associated with proof tests prior to installation, pre-operational tests, and operational tests during plant operations are therefore not applicable to the DC Project. Test Control is applicable to tests and testing programs associated with design verification of the EPR.

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.K, for establishing the necessary measures and governing provisions to demonstrate that testing of items subject to the provisions of the QAP will provide demonstrable evidence to support the verification of the EPR design.

In establishing provisions for testing, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 11, and Supplement 11S-1, for establishing supplemental requirements for test control, without further clarifications or exceptions.

In establishing provisions to ensure that computer software used in applications affecting safety are prepared, documented, verified and tested, and used such that the expected outputs are obtained and configuration control maintained, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Supplement 11S-2, for establishing supplemental requirements for computer program testing, and Subpart 2.7, without further clarifications or exceptions.

3.1.12 Control of Measuring and Test Equipment

The scope of the DC Project does not include fabrication, erection, installation or use. Control of measuring and test equipment (M&TE) associated with proof tests prior to installation, preoperational tests, and operational tests during plant operations are therefore not applicable to the DC Project. Test Control is applicable to tests and testing programs associated with design verification of the EPR.

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.L, for establishing the necessary measures to control the calibration, maintenance, and use of measuring and test equipment that provides information important to the design verification of the EPR.

In establishing provisions for control of measuring and test equipment, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 12 and Supplement 12S-1, for establishing supplemental requirements for control of measuring and test equipment, with the following clarifications and exceptions:

- As an alternative for NQA-1-1994, Subpart 2.4, Section 7.2.1, calibration labeling requirements, the AREVA QAP provides for measuring and test equipment and requires calibration information to be maintained in suitable documentation traceable to the device for equipment. This alternative is consistent with staff guidance provided in Draft SRP 17.5, paragraph II.L.3 and is, therefore, acceptable.

- The out of tolerance conditions described in paragraph 3.2 of supplement 12S-1 refers to when the M&TE is found out of the required accuracy limits. (i.e. out of tolerance) during calibration. This clarification is consistent with the regulatory guidance provided in DRAFT SRP 17.5, paragraph II.L and is, therefore, acceptable.

3.1.13 Handling, Storage, and Shipping

The AREVA QAP scope is limited to quality activities associated with the DC of the U.S. EPR, and does not include fabrication, erection, or installation or use. No equipment or components are being procured as part of the DC Project. Therefore, this element is not applicable to the DC Project and has not been reviewed or approved by the staff.

3.1.14 Inspection, Test, and Operating Status

The AREVA QAP scope is limited to quality activities associated with the DC of the U.S. EPR, and does not include fabrication, erection, or installation or use. No equipment or components are being procured as part of the DC Project. Therefore, this element is not applicable to the DC Project and has not been reviewed or approved by the staff.

3.1.15 Nonconforming Materials, Parts, or Components

The scope of the DC project does not include fabrication, erection, installation or use. Nonconforming materials, parts, or components are not applicable to the Design Certification Project. However, non-conformities associated with services or documentation are processed in accordance with this section of the QAP under the AREVA NP Inc. Corrective Action Program and the staff's evaluation is limited to the such services or documentation.

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.O, for establishing the necessary measures to control services that do not conform to specified requirements, to prevent inadvertent use. Non-conformance's are evaluated for impact on the services or resultant documentation, to ensure that the final condition does not render the service, activity, or documentation unacceptable or indeterminate. Results of evaluations of conditions adverse to quality are analyzed to identify quality trends, documented, and reported to upper management in accordance with applicable procedures.

In addition, the AREVA QAP provides for establishing the necessary measures to implement a reporting program in accordance with the requirements of Part 21 to Title 10 of the Code of Federal Regulations, "Reporting of Defects and Noncompliance," (10 CFR Part 21).

In establishing measures for nonconforming material, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 15 and Supplement 15S-1, for establishing supplemental requirements for the control of nonconforming items, without further clarifications or exceptions.

3.1.16 Corrective Action

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.P, for establishing the necessary measures to promptly identify, control, document, classify, and correct conditions adverse to quality. The AREVA QAP requires personnel to identify known conditions adverse to quality. Reports of conditions adverse to quality are analyzed to identify trends. Significant conditions adverse to quality are documented and reported to responsible management. In case of suppliers working on safety related activities, or similar situations, AREVA does not delegate specific responsibility of the corrective action program and maintains responsibility for the program's effectiveness.

Section 16.0 of the AREVA QAP details that the corrective action program (CAP) includes the following processes, including closure:

- All personnel have the responsibility of reporting and/or recording known or identified conditions adverse to quality.

- Nonconformances and failures are evaluated to determine the need for corrective action, and that such action is taken as necessary.

- The cause of the nonconformance or failure is determined and action is taken to preclude recurrence.

- Appropriate levels of management are informed of significant conditions adverse to quality, the cause of the conditions, the corrective action taken, and the preventive action taken to preclude recurrence.

In addition, the AREVA QAP provides for establishing the necessary measures to implement a reporting program in accordance with the requirements of 10 CFR Part 21.

In establishing a CAP, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 16, without further clarifications or exceptions.

3.1.17 Quality Assurance Records

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.Q, for establishing the necessary measures to ensure that sufficient records of items and activities affecting quality are generated, identified, retained, maintained, and retrievable.

When using electronic records storage and retrieval systems, the AREVA QAP provides for compliance with NRC guidance provided in Regulatory Issue Summary 2000-18 and associated Nuclear Information and Records Management Association, Inc. (NIRMA) Technical Guidelines (TG) 11-1998, TG 15-1998, TG 16-1998, and TG 21-1998.

In establishing provisions for records, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 17 and Supplement 17S-1, for establishing supplemental requirements for quality assurance records, without further clarifications or exceptions.

3.1.18 Quality Assurance Audits

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.R, for establishing the necessary measures to implement audits to verify that activities covered by the QAP are performed in conformance with the requirements established. The audit program is also reviewed for effectiveness as part of the overall audit process. The QAP provides for conducting periodic internal and external audits. Internal audits are conducted to determine the adequacy of program and procedures, and to determine if they are meaningful and comply with the overall QAP. Internal audits are performed with a frequency to assure that an audit of all applicable QA program elements is completed within a period of once per calendar year. External audits determine the adequacy of a supplier's and contractor's quality assurance program. Audit results are documented and reviewed by the responsible management. Management responds to all audit findings and initiates corrective action where indicated. In addition, where corrective action measures are indicated, documented follow-up of applicable areas through inspections, review, re-audits, or other appropriate means, is conducted to verify implementation of assigned corrective action.

In establishing the audit program, the AREVA QAP commits to implement the quality standards described in NQA-1-1994, Basic Requirement 18 and Supplement 18S-1, for establishing supplemental requirements for audits, without further clarifications or exceptions. In addition, personnel who perform audits are qualified to the requirements of NQA-1-1994, and Supplement 2S-3, for establishing supplemental requirements for qualification of quality assurance program audit personnel, and ANSI N45.2.23, without further clarifications or exceptions.

3.2 Nonsafety-Related SSC Quality Assurance Control

3.2.1 Nonsafety-Related SSCs - Significant Contributors to Plant Safety

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.V.1, for establishing specific program controls applied to nonsafety-related SSCs that are significant contributors to plant safety, for which Appendix B is not applicable. The AREVA QAP applies specific controls to those items in a selected manner, targeted at those characteristics or critical attributes that render the SSC a significant contributor to plant safety consistent with applicable sections of the QAP.

3.2.2 Nonsafety-Related SSCs Credited for Regulatory Events

In establishing the quality requirements for nonsafety-related SSCs credited for regulatory events, the AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.V.2, and commits to implement the following regulatory guidance:

- The quality requirements to the fire protection system in accordance with Regulatory Position 1.7, "Quality Assurance," in Regulatory Guide 1.189, "Fire Protection for Operating Nuclear Power Plants," April 2001.

- The quality requirements to anticipated transient without a scram (ATWS) equipment in accordance with Generic Letter 85-06, "Quality Assurance Guidance for ATWS Equipment That Is Not Safety Related," dated January 16, 1985.

- The quality requirements to station blackout (SBO) equipment in accordance with Regulatory Position 3.5, "Quality Assurance and Specific Guidance for SBO Equipment That Is Not Safety Related," and Appendix A, "Quality Assurance Guidance for Non-Safety Systems and Equipment," in Regulatory Guide 1.155, " Station Blackout," August 1988.

3.3 Regulatory Commitments

The AREVA QAP follows the guidance of Draft SRP Section 17.5, paragraph II.U, for establishing QA program commitments. Further, Appendix B of the AREVA QAP commits to comply with the following NRC Regulatory Guides and other quality assurance standards to supplement and support the QAP.

- Regulatory Guide 1.26, Revision 3, "Quality Group Classification and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants," dated February 1976.

- Regulatory Guide 1.29, Revision 3, "Seismic Design Classification," dated September 1978.

- ASME NQA-1-1994, "Quality Assurance Requirements for Nuclear Facility Applications," Part I and II, as described above in Sections 3.1.1 through 3.1.18 of this Safety Evaluation Report (SER).

- ANSI/ASME NQA-1-1994 Edition, Subpart 2.7, “Quality Assurance Requirements of Computer Software for Nuclear Facility Application.”

- Generic Letter 89-02, “Actions to improve the dedication of counterfeit and fraudulent marketed products.”

- Generic Letter 91-05, “Licensee Commercial Grade Dedication Programs.”

- Nuclear Information and Records Management Association, Inc. (NIRMA) Technical Guides, as described in Section 3.1.17 of this SER.

4.0 CONCLUSION

The AREVA QAP follows the guidance and conforms to the format of Draft SRP Section 17.5. The NRC staff used acceptance criteria of Draft SRP Section 17.5 as the basis for evaluating the acceptability of the AREVA QAP in conformance with the provisions of 10 CFR 52.47(a)(i), 10 CFR 50.34(a)(7), and Appendix B to 10 CFR Part 50. On the basis of the NRC staff’s review of the AREVA QAP, the NRC staff concludes that:

1. The AREVA QAP adequately describes the authority and responsibility of management and supervisory personnel, performance/verification personnel, and self-assessment personnel.

2. The AREVA QAP adequately provides for organizations and persons to perform verification and self-assessment functions with the authority and independence to conduct their activities without undue influence from those directly responsible for costs and schedules.

3. The AREVA QAP adequately applies to activities and items that are important to safety.

4. The AREVA QAP adequately establishes controls that, when properly implemented, comply with the requirements of 10 CFR Part 52, Appendix B to 10 CFR Part 50, and 10 CFR Part 21, consistent with the criteria contained in Draft SRP Section 17.5, and with the commitments to regulatory guidance.

On the basis of its review, the NRC staff concludes that the AREVA QAP adequately describes the AREVA quality assurance program. Accordingly, the NRC staff concludes that the AREVA

QAP complies with the applicable NRC regulations and industry standards and can be used by AREVA for DC activities associated with the EPR.

5.0 REFERENCES

5.1 Gardner, R.L., AREVA, to the U.S. NRC, “Request for Review and Approval of ANP-10266NP, ‘AREVA NP Inc. Quality Assurance Plan (Evolutionary Power Reactor (U.S. EPR) Topical Report,’" September 22, 2006 (ML062700315).

5.2 Gardner, R.L., AREVA, to the U.S. NRC, “Response to a Request for Additional Information Regarding ANP-10266NP, ‘AREVA NP Inc. Quality Assurance Plan (QAP) for Design and Deployment of the U.S. Evolutionary Power Reactor (U.S. EPR) Topical Report,’" February 28, 2006 (ML070650256).

5.3 U.S. NRC to AREVA , “Request for Additional Information Regarding Topical Report (TR) ANP-10266NP, ‘AREVA NP, Inc. Quality Assurance Plan for Design and Deployment of U.S. Evolutionary Power Reactor (EPR)’ (Tac No. MD2402),” January 31, 2007 (ML070170494).

5.4 NUREG-0800, "Standard Review Plan," Draft Section 17.5, “Quality Assurance Program Description - DC, Early Site Permit and New License Applicants."

5.5 American Society for Mechanical Engineers (ASME). NQA-1-1994 Edition, “Quality Assurance Requirements for Nuclear Facility Applications.” New York. 1994.

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