



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

January 14, 2010

Mr. Ashok Bhatnagar
Senior Vice President
Nuclear Generation Development
and Construction
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: BELLEFONTE NUCLEAR PLANT, UNITS 1 AND 2—REQUEST TRANSITION
TO DEFERRED PLANT STATUS (TAC NOS. ME1904 AND ME1905)

Dear Mr. Bhatnagar:

By letter dated August 10, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092230594), the Tennessee Valley Authority (TVA), holder of Construction Permit (CP) Nos. CPPR-122 and CPPR-123 for the construction of Bellefonte Nuclear Plant (BLN), Units 1 and 2, respectively, requested that the U.S. Nuclear Regulatory Commission (NRC) authorize placement of BLN, Units 1 and 2, into "deferred plant" status. The Commission's Policy Statement on Deferred Plants, as published in the *Federal Register* (FR) on October 14, 1987 (52 FR 38077), outlines the NRC's regulatory provisions for deferring and preserving a deferred nuclear power plant until such time as it may be reactivated.

Currently, BLN, Units 1 and 2, are in "terminated plant" status. (The Commission's policy statement defines a "deferred plant" as one "at which the licensee has ceased construction or reduced activity to a maintenance level, maintains the construction permit (CP) in effect, and has not announced the termination of the plant." A "terminated plant" is one "at which the licensee has announced that construction has been permanently stopped, but which still has a valid CP.") TVA has not requested any amendment to the CPs for BLN, Units 1 and 2.

The NRC staff has reviewed information that TVA submitted in its August 10, 2009, letter. The NRC staff conducted an inspection of TVA activities associated with the "deferred plant" status. Based on its review of the TVA submittal and the inspection results, the NRC staff has completed its assessment of TVA's construction deferral program and its implementation.

Background

In an order issued on March 9, 2009, reinstating the CPs for the construction of BLN, Units 1 and 2, and returning the facility to "terminated plant" status, the NRC specified the following:

Should TVA choose to pursue placement of the facility in a deferred plant status, it shall ensure to the satisfaction of the NRR [Office of Nuclear Reactor Regulation] Director that it has complied with the guidance and provisions under Section III.A, "Deferred Plant," of the Commission's Policy Statement on Deferred Plants. When the results of its evaluation and inspection are satisfactory, the

NRR Director may then authorize placement of the facility in a deferred plant status.

Staff Assessment

The Commission's policy statement identifies the areas of consideration should a facility be placed in a "deferred plant" status: On this basis, the NRC staff considered the following items in conducting its review:

- the notification of plant deferral
- the extension of the CPs
- the maintenance, preservation, and documentation (MPD) of equipment
- the conduct of review during deferral
- the applicability of new regulatory requirements during the period of deferral

In addition, on October 5, 2009, the staff issued "Bellefonte Nuclear Plant Units 1 and 2—Staff Plan for Assessment of Transition to Deferred Plant Status" (Bellefonte Assessment Plan or the Plan) (ADAMS Accession No. ML092740149) to provide guidance for its assessment of TVA's request related to these areas. In addition, to the requirements in the Commission's policy statement, the Plan identified other areas for consideration. These areas involved the TVA plans for resolving a hydrology issue; proposed site activities during the period of deferral to ensure that these activities remain bounded by the environmental impact statement for the CPs; status of other Federal, State, and local government requirements; and implications for the review of the combined license application for BLN, Units 3 and 4.

The following provides the basis for the NRC staff's determination.

1.0 Notification of Plant Deferral

In addition, to informing the NRC when a plant is to be deferred, the Commission's policy statement indicates that information be made available that includes the reason for deferral; expected reactivation date, if known; whether it will submit an extension to the CPs; and its plans for fulfilling the requirements of the CPs, including MPD. TVA provided the information in its August 10, 2009, letter and informed the NRC of its plan to place BLN, Units 1 and 2, in "deferred plant" status.

TVA has not determined a date for reactivating the construction of BLN, Units 1 and 2. However, TVA indicated that, should it decide to reactive construction, it would submit a letter 120 days before resuming construction and provide the required information in accordance with the Commission's policy statement. Further, on November 4, 2009, TVA published a draft supplemental environmental impact statement to inform decision makers, agencies and the public about the potential for environmental impacts that would result from a decision to complete or construct and operate a single nuclear generating unit at the BLN site. TVA considered the action alternatives of completion and operation of a Babcock and Wilcox pressurized light water reactor or construction and operation of a Westinghouse AP1000 advanced pressurized light water reactor.

TVA's plans for fulfilling the requirements of the CPs will be verified through periodic NRC inspection.

Thus, the NRC staff finds that TVA has provided sufficient information to meet the provisions for notification of plant deferral in the Commission's policy statement.

2.0 Extension of Construction Permits

CP No. CPPR-122 for BLN, Unit 1, will expire on October 1, 2011, and CP No. CPPR-123 for BLN, Unit 2, will expire on October 1, 2014. TVA has not requested any changes to these dates. Thus, the NRC staff finds that TVA has provided sufficient information to meet this provision of the Commission's policy statement.

3.0 Maintenance, Preservation, and Documentation of Equipment

The Commission's policy statement addresses the regulations and guidance applicable to deferred and terminated plants, quality assurance (QA) requirements, MPD requirements for deferred plants, and the application of new regulatory requirements to deferred plants upon reactivation and other general administrative considerations. The QA program implemented during the deferral should include a description of the planned activities; organizational responsibilities and procedural controls that apply to the verification of construction status; MPD of equipment and materials; and retention and protection of QA records. For plants in a deferred status, Section III.A.3 of the Commission's policy statement states that an applicant may modify its commitments related to the regulatory requirements (i.e., those that apply to plants under construction) commensurate with the expected activities during deferral.

In its enclosure to the August 10, 2009, letter, TVA addressed these elements of the Commission's policy statement.

TVA's nuclear quality assurance program (NQAP) covers both the operating plants and those under construction, including MPD. Appendix G to the NQAP, which was provided to the NRC in Revision 20, addresses the QA requirements related to the construction of BLN, Units 1 and 2. It describes and establishes the administrative controls needed to meet the requirements of Appendix B to 10 CFR Part 50, the Commission's policy statement, and the NRC's order reinstating the CPs for BLN, Units 1 and 2.

The staff determined that TVA has reestablished the necessary QA programs and procedures in accordance with its NQAP. As discussed in NRC Inspection Report Nos. 05000438/2009601 and 05000439/2009601, dated December 2, 2009 (ADAMS Accession No. ML093370083), the staff assessed the TVA QA activities, including organizational responsibilities; programs and procedural controls that apply to the verification of construction status; MPD of equipment and materials; retention and protection of QA records; the reporting of deficiencies in design, construction, and QA; and the reporting of defects and noncompliances during deferral. The NRC staff concludes that TVA's QA activities and actions associated with MPD of equipment satisfy the criteria in the Commission's policy statement. The NRC performs inspections periodically to examine implementation of the program to determine compliance with commitments and overall program effectiveness.

4.0 Conduct of Review during Deferral

TVA tendered its application for an operating license (OL) for BLN, Units 1 and 2, on February 1, 1978. The NRC completed its acceptance review and docketed the application on June 6, 1978. Because of TVA's prior decision to terminate construction of BLN, Units 1 and 2, there are no ongoing reviews of the OL application. In addition, TVA has not requested any modification to the CPs, which would require NRC review and approval. Thus, the NRC staff does not plan to conduct the review of any licensing actions during the period of deferral. The staff finds that the provisions of the Commission's policy statement in this area have been met.

In the event that it decides to resume active construction, TVA will notify the NRC of its decision in a letter that it will submit 120 days before it resumes construction and will provide the other information listed in Section III.A.6 of the Commission's policy statement, including key assumptions and a detailed regulatory framework for reactivating construction. These documents will address the plant's status related to previously issued generic letters, bulletins, circulars, and information notices for applicability, new standards, guidance and regulation for applicability to BLN, and commitments and open items related to licensing. TVA will also submit an updated OL application, including an amendment to the BLN, Units 1 and 2, final safety analysis report and updated environmental report.

5.0 Applicability of New Regulatory Requirements during Deferral

In its August 10, 2009, letter, TVA indicated that it has reviewed the new regulatory requirements that have been issued since plant deferral (in June 1988) through July 2009 and determined that there are no new applicable regulatory requirements that would affect activities during the period of deferral. Thus, the staff finds that TVA satisfies the criteria in the Commission's policy statement.

6.0 Additional Considerations

As described in the assessment plan dated October 5, 2009, the NRC staff addressed certain additional considerations, which were not needed for determining compliance with the provisions of the policy statement related to transition to "deferred plant" status. However, the staff assessed them to ensure that these items would not create other issues after the staff makes its determination on deferral status. The staff found that TVA has established procedural controls to ensure maintenance activities performed while in a terminated or deferred plant status do not advance construction of the plants. The NRC staff verified that TVA's controls are adequate to ensure that proposed site activities do not advance construction and do not affect the conclusions in the environmental impact statement for the CPs. By letter, dated December 2, 2009, TVA confirmed that the National Pollutant Discharge Elimination System permit and other Federal, State, and local licenses and permits are current. The NRC staff finds that TVA has confirmed that applicable licenses and permits remain current and a renewal process is included in project schedule.

7.0 Inspections

From October 19 to October 23, 2009, the NRC staff conducted an inspection of BLN, Units 1 and 2. NRC Inspection Report Nos. 50-438/2009601 and 50-439/2009601, dated December 2, 2009, document the results of the inspection.

The NRC staff conducted the inspection to identify the status of the applicable program areas specified in Section III.A of the Commission's policy statement. Within these areas, the inspection consisted of selected examinations of procedures and representative records, interviews with personnel, equipment status verification, and observations of program and process implementation.

The inspection verified that TVA had properly implemented the NRC-approved QA program and established processes and controls necessary to comply with regulatory requirements associated with its CPs. The inspection determined that TVA's QA organizational structure and functional relationships were clear and that the equipment covered under the QA plan are properly identified and scoped. The inspection found that TVA's audits and self-assessments conducted to assess readiness to transition to a deferred plant status were of good quality. The inspection reviewed BLN procedures for the reporting of 10 CFR 50.55(e) construction deficiencies and 10 CFR 21.21, "Notification of Failure To Comply or Existence of a Defect and Its Evaluation," defects and noncompliances and verified the program was effectively implemented. Issues were appropriately entered into the corrective action program, and the corrective actions taken were sufficient to correct the identified conditions. Through the review of a sample of documents, the inspection verified that TVA properly prepared, approved, stored, and controlled documents in accordance with its QA requirements. Through discussions with TVA personnel and a review of procedures and documentation, the inspection determined that TVA has adequately addressed the impact of investment recovery activities without proper QA control on the SSCs. TVA considers the condition of all onsite SSCs to be indeterminate. Therefore, the preventive maintenance activities currently identified are those deemed necessary for investment protection. At a later date, TVA plans to individually assess the condition and safety classification of all SSCs. The inspection reviewed controls established for work activities performed during deferred construction and determined that specific guidance is provided that prohibits any work that could be identified as furthering plant construction or completion.

The NRC inspection concluded that TVA has developed programs and procedures and is properly implementing related activities to support transition to deferred status. As specified in the Commission's policy statement, the NRC staff plans to perform future inspections of TVA's QA activities during deferred construction.

Assessment Conclusion

Based on the above discussions and the inspection results, the NRC staff has determined that TVA has addressed those elements of the Commission's policy statement to allow BLN, Units 1 and 2, to be placed in "deferred plant" status. The NRC will continue to periodically inspect the implementation of TVA's QA program and site activities during deferral to determine TVA's compliance with commitments and overall program effectiveness. Should information subsequently become available that the NRC did not consider during its review or that conflicts

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with earlier information, the NRC will evaluate the information to determine what effects it may have on this conclusion.

Therefore, I authorize placement of BLN, Units 1 and 2, into "deferred plant" status in accordance with the Commission's direction in Staff Requirements Memorandum COMSECY-08-0041, "Staff Recommendation Related to Reinstatement of the Construction Permits for Bellefonte Nuclear Plant, Units 1 and 2," dated February 18, 2009 (ADAMS Accession No. ML090490838).

Sincerely,

A handwritten signature in black ink, appearing to read "E. J. Leeds". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Docket Nos. 50-438 and 50-439

A. Bhatnagar

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with earlier information, the NRC will evaluate the information to determine what effects it may have on this conclusion.

Therefore, I authorize placement of BLN, Units 1 and 2, into "deferred plant" status in accordance with the Commission's direction in Staff Requirements Memorandum COMSECY-08-0041, "Staff Recommendation Related to Reinstatement of the Construction Permits for Bellefonte Nuclear Plant, Units 1 and 2," dated February 18, 2009 (ADAMS Accession No. ML090490838).

Sincerely,

/RA/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Docket Nos. 50-438 and 50-439

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