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Document Control Desk U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001

Request for Review of ANP-10276, "Design Features Unique to the U.S. EPR"

Ref.: 1. Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Proposed Plan for the Pre-Application Review of the U.S. EPR," NRC:06:036, September 8, 2006

AREVA NP Inc. (AREVA NP) submits the report, ANP-10276, "Design Features Unique to the U.S. EPR," for information and use by the NRC staff to gain familiarity with the unique design features that will be used in the U.S. EPR. This report was identified as a pre-application submittal for the U.S. EPR in Attachment 3 of Reference 1. While these design features may be unique, they are based on proven technology and use the insights gained from the design of OL-3 and incorporate world-wide operating experience.

This report includes a description of the following design features unique to the U.S. EPR: the four safety train concept, the reactor vessel heavy reflector, natural convection cooling of the control rod drive mechanism housing, the pressurizer pressure control system, the main steam relief train, and the approach to mitigation of steam generator tube rupture and small break loss-of-coolant accidents. Information relative to the Incore Neutron Measuring System will be submitted to the NRC in the U.S. EPR Nuclear Incore Instrumentation Systems report.

AREVA NP is prepared to support NRC feedback of this document through meetings, requests for additional information and telephone conference calls to answer questions and provide additional discussion or clarification of the information contained in this report.

The report ANP-10276 is provided on the enclosed CD.

If you have any questions related to this submittal, please contact Ms. Sandra M. Sloan, Regulatory Affairs Manager for New Plants Deployment. She may be reached by telephone at 434-832-2369 or by e-mail at <u>sandra.sloan@areva.com</u>.

Sincerely,

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Ronnie L. Gardner, Manager Site Operations and Regulatory Affairs AREVA NP Inc.

Enclosures

AREVA NP INC. An AREVA and Slemens company



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