AREVA

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

Status of the Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)

Ref. 1: Letter, Ronnie L. Gardner (AREVA NP Inc.) to Document Control Desk (NRC), "Interim Report of an Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)," NRC:06:022, April 13, 2006.

Ref. 2: Letter, Frederick P. Shiffley, II (PWR Owners Group) to Document Control Desk (NRC), "Assessment of Post LOCA Control Rod Survivability, PA-ASC-0313," OG-07-15, January 9, 2007.

AREVA NP Inc. (AREVA NP) issued an interim report to the NRC on April 13, 2006 (Reference 1) concerning an issue related to the survivability of control rods during a design basis LOCA. The issue centered on eutectic reactions and mechanical interactions between zirconium based guide thimble tubes and stainless steel or inconel sheathed control rods and the potential of the control rod failing and releasing molten Ag-In-Cd absorber material onto the fuel rods and into the primary coolant channel.

The evaluations that were discussed with the NRC and included in the White Paper (Reference 2) used test data, formal calculations, and preliminary analyses collectively to address the key technical issue related to this potential safety concern. A task has been proposed to formalize the preliminary analyses described in the White Paper. Based on the current assessments presented in Reference 2, it is concluded that control rod melt with absorber expulsion does not occur for any design basis scenario for any past or current control rods supplied by AREVA NP provided the fuel cladding meets the ECCS acceptance criteria of 10 CFR 50.46. Therefore, it is concluded that this issue does not constitute a substantial safety hazard reportable under 10 CFR 21.

Sincerely,

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

cc: H. Cruz
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Project 728

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