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1CAN010604

January 27, 2006

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

SUBJECT: 60-Day Report for ANO-1 Alloy 600 Inspections for Refueling Outage 1R19  
Arkansas Nuclear One, Unit 1  
Docket No. 50-313  
License No. DPR-51

- REFERENCES:
- 1 NRC letter dated May 28, 2004 NRC Bulletin 2004-01: *Inspection of Alloy 82/182/600 Materials Used in The Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at PWRs* (OCNA050408)
  - 2 Entergy letter dated July 27, 2004, *Response to NRC Bulletin 2004-01 Regarding Inspection of Alloy 82/182/600 Materials Used In Pressurizer Penetrations and Steam Space Piping Connections* (OCAN070404)
  - 3 Entergy letter dated September 21, 2005, *Response to NRC Request for Additional Information for Bulletin 2004-01 Regarding Inspection of Pressurizer Penetrations* (OCAN090501)
  - 4 Entergy letter dated November 19, 2003, *Response to NRC Bulletin 2003-02 Regarding Reactor Vessel Lower Head Nozzle Integrity* (1CAN110301)

Dear Sir or Madam:

On May 28, 2004, the NRC issued Bulletin 2004-01 (Reference 1) requesting licensees to perform bare metal visual (BMV) inspections on pressurizer penetrations containing Alloy 600 material. Entergy provided our response for Arkansas Nuclear One, Unit One (ANO-1) to NRC Bulletin 2004-01 on July 27, 2004 (Reference 2). An NRC request for additional information was issued and responded to in letter dated September 21, 2005 (Reference 3). As part of our response to Bulletin 2004-01, Entergy committed to submit a report summarizing our findings within 60 days after commencing operation from the outage. The 1R19 refueling outage was completed on December 22, 2005 and this report fulfills this commitment.

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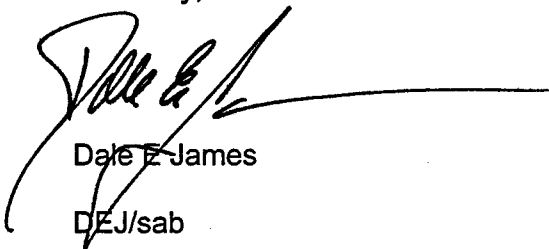
The 1R19 inspection included a visual inspection of the pressurizer water and steam space Alloy 600 J-groove welds, associated Alloy 600 butt welds, and a repaired steam space instrument nozzle Inconel weld pad. A listing of these weld locations is contained in Reference 2. The heaters on the ANO-1 pressurizer consist of stainless steel bundles and are not subject to the bulletin inspections. As a result of these inspections, no boric acid leakage was identified that would be indicative of primary water stress corrosion cracking for the Alloy 600 pressurizer penetrations.

In addition, on February 20, 2004, the Nuclear Regulatory Commission (NRC) issued the revised Order addressing inspection requirements for reactor pressure vessel (RPV) heads at pressurized water reactors. During the 1R19 outage, Entergy replaced the ANO-1 reactor pressure vessel (RPV) head. The replacement RPV head was fabricated using Alloy 690 materials for the nozzles and nozzle attachment welds. Since the RPV head was at initial or zero effective degradation years (EDY) per the Order, no RPV head inspections were required during this outage. However, the preservice inspection was conducted prior to installation.

On November 19, 2003 (Reference 4), Entergy committed to perform a bare metal visual inspection of the bottom mounted instrument (BMI) nozzles on the reactor vessel during the spring 2004 refueling outage per NRC Bulletin 2003-02. During that outage inspection, there was no boric acid leakage identified on these nozzles. Based on this inspection and analysis performed for 1R19, a bare metal inspection was not performed on the BMI nozzles during this outage. However, as part of our normal post outage pressure test inspections conducted during heatup, an inspection of the BMI housings below the vessel insulation was performed with no indication of boric acid leakage.

This letter contains no NRC commitments. If you have any questions or require additional information, please contact Steve Bennett at 479-858-4626.

Sincerely,



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DEJ/sab

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