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October 17, 2016

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

SUBJECT: Reactor Vessel Surveillance Capsule Technical Report
Arkansas Nuclear One – Unit 2
Docket No. 50-368
License No. NPF-6

Dear Sir or Madam:

In accordance with 10 CFR 50, Appendix H, part IV, Entergy Operations, Inc. (Entergy) is submitting this letter to transmit the Arkansas Nuclear One, Unit 2 (ANO-2) reactor vessel surveillance capsule technical report, WCAP-18166-NP, Revision 0, "Analysis of Capsule 284 from the Entergy Operations, Inc. Arkansas Nuclear One, Unit 2 Reactor Vessel Radiation Surveillance Program," dated September 2016.

This capsule was withdrawn from the ANO-2 reactor vessel on October 25, 2015, in accordance with the capsule withdrawal schedule presented in ANO-2 Safety Analysis Report, Table 5.2-12. The capsule withdrawn is identified as W-284 with a withdrawal time of 30 Effective Full Power Years (EFPY). It was determined by the analysis that the actual capsule exposure time was 29.24 EFPY. The surveillance capsule report, in its entirety, is included in attachment to this letter.

The following are the conclusions based on the results of the Capsule W-284 testing.

1. The measured percent decreases in the upper-shelf energy for the surveillance material contained in Capsule W-284 are less than the Regulatory Guide 1.99, Revision 2 predictions.
2. Based on the credibility evaluation presented in the report, the ANO-2 surveillance plate and surveillance weld material are credible.
3. With consideration of surveillance data, all beltline materials exhibit adequate upper-shelf energy levels for continues safe plant operation and are predicted to maintain an

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upper-shelf energy greater than 50 ft-lb through end-of-license (32 EFY) as required by 10 CFR 50, Appendix G.

This letter contains no new regulatory commitment.

If you have any questions concerning this submittal, please contact me.

Sincerely,



SLP/rwc

Attachment: WCAP-18166-NP, Revision 0, "Analysis of Capsule 284 from the Entergy Operations, Inc. Arkansas Nuclear One, Unit 2 Reactor Vessel Radiation Surveillance Program," dated September 2016

cc: Mr. Kriss Kennedy
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